Political patronage in Ukranian banking

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Abstract

This paper empirically investigates the link between political patronage and bank performance for Ukraine during 2003Q3–2005Q2. We find significant differences between politically affiliated and non-affiliated banks. The data suggest that affiliated banks have significantly lower interest rate margins and increase their capitalization. Furthermore, we show that the level of activity of affiliated deputies in parliament has a positive (negative) impact on banks' capitalization ratio (interest rate margin). Our findings imply, in line with the related literature, that political affiliation has important effects on banks' behavior.

Keywords: political patronage, Ukraine, banking, capitalization, interest rate margin

JEL classification: G32, G38

1 Introduction

It is now well recognized that politically-connected enterprises behave differently from those lacking such links. For instance research has documented that politically-connected firms may have higher leverage ratios than their non-connected peers (Cull and Xu (2005), Joh and Chiu (2004), Johnson (2003), and Khwaja and Mian (2005)). Likewise, Faccio, Masulis and McConnell (2006) provide empirical evidence that politically-connected firms are more likely to be rescued from financial turmoil than their non-connected peers. Furthermore, researchers have shown that a large proportion of the value of connected firms could be explained by the presence of their political associations (Roberts (1990), Fisman (2001) and Faccio (2006)).

Recent research has found comparable behavior in politically-connected banks. Politically-linked banks perform differently than those lacking such associations. Using a sample of European banks during 1986–1989, Molyneux and Thornton (1992) find that government ownership has a positive impact on bank profitability, while Sapienza (2004) argues that state-owned banks charge lower interest rates than do privately owned banks to similar or identical firms.[1] Fraser, Zhang and Derashid (2006) suggest that Malaysian banks' leverage is affected by the share of government ownership, informal ties to politicians, and the ownership share held by "institutional investors", *de facto* controlled by the government or government-sponsored agencies. Dinc (2005) reports differences between government-owned and private banks' lending patterns during election years. Finally, political connections may determine governments' intervention to rescue failing banks (Bongini, Laeven and Majnoni (2002)).

In this paper, we contribute to the banking literature that scrutinizes the role of political linkages and bank behavior.[2] Specifically, the paper investigates whether banks with political affiliations to members of the Ukrainian parliament behave differently from those lacking such associations. This is a somewhat different issue than that considered in much of the literature that has focused on the behavior of state-owned banks versus private banks. We go a step further and attempt to identify

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[1]See also Porta, Lopez-De-Silanes and Shleifer (2002).

[2]There is a long list of papers that investigate bank ownership and economic performance. See for instance Stiglitz (1993) and references therein.

"gray" links between commercial banks and Ukrainian parliamentary deputies.

The overlapping of business and politics is one of the key features of Ukraine in transition. Just after independence Ukraine was considered as a country with considerable potential which, unfortunately, was not realized. The absence of strong market-enhancing institutions, fragile property rights, the huge share of the "shadow" economy and opaque government policies slowed the transition from a central planning system to a market economy. While most Ukrainians were worse off during the first years of the transformation period, there were also a few winners who extracted huge benefits from the redistribution of national wealth.[3] Consequently, they transformed the economic landscape by forming business groups which compete not only in business but also vie for political power.[4] Naturally, in such an environment, one would expect banks with political affiliations to behave differently from those that do not have similar linkages.

The reasons for banks to seek political connections are easily understood. A bank with connections to high-ranking officials in the parliament or the executive branch can overcome many obstacles and can improve the conditions for doing business. For example, the bureaucratic hurdles to obtain a licence to carry out transactions in foreign currency may be lower for banks that have access to a political network; or, the possibility of gaining the business to carry out monetary transactions for governmental bodies and public authorities may be greater for such banks (Kyj and Isik, 2006). Also, in Ukraine, as in most countries, the parliament decides the course of future privatization plans. Therefore banks with such links may enjoy an informational advantage over other interested bidders in privatization deals. Finally, politically-affiliated investment banks may have a higher chance of obtaining a lucrative mandate to advise the government in privatization transactions.

We may imagine that in return for their services politicians seek political rents, as elections and political negotiations in the parliament require huge amounts of funds which could be 'legally' tapped from the related enterprises. This might take the form of donations, charitable activities or the availability of below-market-rate loans.

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[3]For a survey of the Ukrainian transition, see Marin and Schnitzer (2005).

[4]See Gorodnichenko and Grygorenko (2005) and references therein.

In that sense banks with important political affiliations may be operating with a different objective function than that of strict profit maximization.

To gain some insight into the role of political connections in the Ukrainian banking industry, we use a panel of banks obtained from a database provided by the National Bank of Ukraine covering the 2003Q3–2005Q2 period. After screening procedures our data include about 1,300 bank-quarter observations with up to 150 banks per quarter. To identify the political links we examined the biographies of 467 members of Parliament during 2002–2006. A parliamentary deputy is considered as affiliated with a bank if she was a member of the board of a bank, worked in bank management, or served on the board of a business group that included banks. Two estimators are applied to this bank panel: the first difference estimator and the System GMM estimator (Blundell and Bond, 1998). The first difference estimator is used to obtain the impact of patronage on the growth rates of interest rate margins and capitalization ratios. The System GMM estimator is employed to analyze how deputies' level of political activity influences the dynamics of bank behavior.

Several findings emerge in a setting where confounding factors are taken into account and we control for the joint effects of patronage and banks' prior growth rates. First, the interest rate margins of affiliated banks grow significantly more slowly than those of non-affiliated banks. Second, the increase of the capitalization rate is higher for connected than for non-connected banks. This is compatible with a narrowing of the gap in capitalization ratios between deputy-affiliated banks and non-affiliated banks. The increase in the capitalization ratio of the non-affiliated banks is lower than that of their affiliated counterparts in periods in which both groups' capitalization ratios increase. However, in periods of negative growth, the capitalization ratios of the non-affiliated banks decrease more strongly. And finally, the activity level of affiliated deputies lowers the interest rate margin and stimulates the capitalization of their affiliated banks.

Our evidence suggests that deputy-affiliated banks increase their capitalization ratios, which are generally lower, to pave the way for a merger with a foreign bank. One possible reason why deputy-affiliated banks might be appealing to a foreign investor is the ease of overcoming bureaucratic obstacles. In transition countries, although low capitalization of a bank may reduce the appetite of any foreign investor,

measures put in place that increase banks' capital ratio could remove such reservations and promote takeovers.

Several examples have proven the attractiveness of politically affiliated banks for foreign investors. For instance, *Forbes* reports on February 7, 2007: "Swedbank AB said it is acquiring Ukraine's TAS-Kommerzbank (TAS) bank based in Kiev for 735 mln USD...TAS' equity, including the upcoming equity contribution of 50 mln USD, was 177 mln USD at end-2006... TAS is currently owned by its chief executive Sergiy Tigipko, who is former governor of Ukraine's central bank, as well as a former minister of economy and vice prime minister."[5]

A very recent plan for a deal with bank shares clearly illustrates the positive relation between capitalization and attractiveness. The owners of Khreschatyk Bank announced to sell 75% of the shares to foreign investors. The plan for the deal emerged after the bank's statutory capital was increased by UAH 290 million to UAH 540 million.[6]

However, the domestic banks' interest in foreign takeovers is only a partial explanation of the incentives that may drive the narrowing of capitalization ratios during the observation period. There is also the other side of the coin: a downward trend of the capital ratios of non-affiliated banks. Most likely, the managers of independent banks wish to bring their high, and presumably expensive, capitalization buffers more closely in line with Basel I and Basel II standards as conditions in the Ukrainian banking sector improve.[7] Furthermore, it is possible that bank size could be related to the observed trend. As smaller banks are more exposed to changes in the macroeconomic environment, they need larger equity-to-assets ratios than do their larger counterparts. However, as a result of the stabilization of the Ukrainian economy, even smaller banks may be able to decrease their expensive capitalization buffers.

The rest of this paper is organized as follows. In the next section we describe the political patronage issue in the context of the Ukrainian banking sector. Section 3 presents the data. Section 4 illustrates the econometric model and estimation results.

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[5]http://www.forbes.com/markets/feeds/afx/2007/02/07/afx3402788.html.

[6]http://www.ukranews.com/eng/article/48523.html.

[7]Basel I requires a minimum capitalization ratio of 8 percent, while Basel II determines the capitalization ratio according to the risk of clients.

Finally, Section 5 presents conclusions.

2 Ukrainian banks and Parliamentary links

2.1 The Ukrainian banking sector

The origin of the present Ukrainian banking system dates back to 1987. In those days the Communist Party of the Soviet Union initiated economic reforms which affected the banking sector as well. Prior to the reform there were only four banks in the Soviet Union: State Bank (Gosbank), Construction Bank (Strojbank), Saving Bank (Gostrudsberkassy), and Exportbank (Vneshtorgbank). The role of banks in that system was limited as there was no real difference between credits and subsidies. Gosbank often financed inefficient and unprofitable state programs.

The reform of the Soviet Union's banking system changed the role of banks. A fragile two-tier banking system was established comprised of the Central Bank (NBU) and commercial banks. Five new banks: Promstrojbank, Zhilsotsbank, Sberbank, Agroprombank and Vneshtorgbank were established or reorganized on the basis of the former banks in 1987.

The modern Ukrainian banking system was born in 1991, at the time of independence, when the Law on "On Banks and Banking" was adopted. The large state banks Promstrojbank, Zhilsotsbank, Sberbank, Agroprombank and Vneshtorgbank were renamed Prominvestbank, Ukrsotsbank, Oshchadbank, Ukraine and Ukreximbank, respectively. The number of banks increased dramatically during the transformation from the Soviet Union to independent Ukraine.

While there were only 76 banks during the first year of Ukrainian independence (1991), over 230 banks operated in 1995. This significant increase was stimulated by the low barriers to entry in those days. The banks' capital requirements were extremely low and comparable to the price of a three-room apartment in Kyiv (Dushkevych and Zelenyuk (2007)). However, in the following years the churn rate became fairly high until the banking sector gained more stability in the early years of the new century. For instance, 20 banks were liquidated in 1995, including larger banks such as INKO, Vidrodzhennia, Ekonombank and Lisbank. These larger banks belonged to the "top ten" by asset size in prior years. In January, 1996, 231 banks existed. How-

ever, 22 of them had already entered the process of liquidation, eight had announced bankruptcy, and six had ceased banking operations. During all of 1996, a total of 45 banks went bankrupt. All banks were affected by a dramatic decrease in the inflation rate and stricter capital requirements imposed by the NBU.

By December 2005, 186 commercial banks were registered.[8] Between 2002–2007 no bankruptcies of large banks occured. With rare exceptions, most of the banks retained their market share. This allows us to conclude that the banking system has been relatively stable and sound during this period without any serious structural changes which would render the data incomparable.

While in many instances the Ukrainian banking sector follows the same path as its Russian counterpart with about a one-year lag, there are several notable differences. There is no market-maker similar to the Russian state-owned Sberbank. In Ukraine the largest bank's share is less than 20 percent of the total assets of the system and the three state banks' combined share is less than that of the sector's leader. The state banks are descendants of state-owned banks established in the Soviet era: Ukrsotsbank, Ukreximbank and Saving Bank (Oshchadbank). However, the ten largest banks possess about 55 percent of total assets and loans of the whole system (see Figure 1). This structure indicates both a rather high concentration in the banking sector but also strong competition among the largest ten institutions. The majority of existing banks are "pocket banks" that service individual firms or group of firms. The latter pattern is common in the banking sectors of former Soviet republics. There are almost no notable regional banks. Although the representation of banks is very high in every region, most bank headquarters are located in Kyiv.

Most banking sector assets are invested in real sector financing with a share of securities of less than six percent. Before a devastating inflation in the mid-1990s and the revival of real GDP in 2000, the majority of credits were short-term. The general stabilization of the economy led to an increase of the share of long-term (over one year) loans from 13 percent as of 2000 to 47 percent as of 2005. However, short-term liabilities comprise the preponderance of the banking system's obligations as both households and firms prefer short-term deposits, with maturity less then one year. Hence, there is a considerable duration mismatch between the banking system's assets

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[8]See Dushkevych and Zelenyuk (2007) for a detailed overview of the Ukrainian banking system.

and its liabilities. Furthermore, almost all of the largest banks have a business group affiliation which implies direct ownership or cross ownership. In a study of Ukrainian oligarchs, Gorodnichenko and Grygorenko (2005) report 13 oligarchic groups.[9] Banks play major roles in five of these groups: Privat, Aval, UkrSotsBank, UkrSibBank, and Finance&Credit.

The EBRD Transition Report index of banking reform and interest rate liberalisation increased Ukraine's ranking from 2.67 in 2005 to 3.0 in 2006. This measure ranges from 1 (very low development) to 4 (complete adaptation to the standards of the Bank for International Settlements).[10] Although this upgrading indicates considerable progress, Ukraine is still far behind the Baltic states in its financial sector development. However, in recent years some developments signal accelerated maturation of the sector. In particular, the ratio of gross banking sector assets to GDP increased constantly and significantly from 23 percent in 2000 to 65 percent in 2007. This development occurred despite the fact that banks in Ukraine operate in an economic environment with marked seasonal fluctuations. Figure 3 shows considerable increases in GDP and retail sales at the end of each year, presumably due to agricultural cycles and increased consumer activities. Along with the increasing share of banking assets, the average interest rate on credits in Ukrainian Hryvnias decreased from over 50 percent to about 15 percent (see Figure 2).

A second feature that signals recent progress is the rapid increase in direct investment in the banking sector. The most spectacular movements by foreign institutions into the Ukrainian banking sector were the takeover of 93.5 per cent of Aval Bank's capital by the Austrian Raiffeisen International in 2005 and the acquisition of a 51 per cent stake in UkrSibBank by the French-based BNP Paribas in 2006. Overall, the number of banks which are at least partly owned by foreign investors has almost doubled between 2004 and 2006. Given this evidence on bank mergers, it appears that banks with political linkages attract foreign investors.

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[9]An entity is termed an "oligarch" if it also "has at least one representative in the parliament or government that is legally or publicly associated with this entity or the group controlled by it." (*op.cit.*)

[10]See `http://www.ebrd.com/country/sector/econo/stats/index.htm`.

2.2 Verkhovna Rada

Ukraine is a semi-presidential representative democratic republic with a multi-party political system. The Ukrainian parliament, *Verkhovna Rada*, is the sole body of legislative power in Ukraine. The first parliament (1990–1994) had considerable power but failed to take responsibility for economic turmoil. A largely uncontrolled process of privatization led to emergence of powerful oligarchic groups with sizable political influence. Since then the parliament has become an arena for competition of these institutions whose representatives control the most important export-oriented sectors of the economy. At the same time, parliament often contends with the President, whose power was particularly strong during 1998–2002. During that period, President Leonid Kuchma played a crucial role in Ukrainian politics, formed the government and manipulated the legislative process by vetoing many bills. However, constitutional changes effected before the Orange Revolution of November 2004–January 2005 reinforced the status of Verkhovna Rada, which formed the Cabinet of Ministers for the first time in the Ukrainian history.

The parliament has 450 deputies elected on the basis of universal, equal and direct suffrage by secret ballot. Parliament members are guaranteed parliamentary immunity, which means that they are not legally liable for the results of voting or for statements made. Every deputy has the right to decisive vote as regards to all issues considered at the sessions of the Verkhovna Rada and its bodies to which she is elected. Furthermore, the deputies submit inquiries which, according to the Law of Ukraine "On Deputy Status", are formal requests, announced during a parliament session, to bodies of executive and judicial power or to bodies of local self-government, as well as to managers of companies, enterprises and organizations located in the territory of Ukraine regardless of their subordination and forms of property. The objects of inquiries are obliged to provide an official response to the deputy according to their competence.

2.2.1 Patronage in Ukraine

Patronage is a common and widely recognized feature of post-Communist economies. Referring to the Law of Ukraine, we must note that the Law does not allow deputies to hold a position in management, the board of directors or the supervisory board of

any company. Despite this restriction, parliamentary deputies are able to maintain contacts with enterprises by being a member of an advisory board or being large shareholders. Therefore, it is possible that the deputies can act in their personal interest, or in the interest of firms with which they are affiliated. For instance, Protsyk and Wilson (2003) suggest that Ukrainian decision makers have the power to distribute appointments, to allocate public expenditures, and to change different statutory rules. They also argue that although the transition to democracy has changed the political structure, it has not eliminated the issues connected with occupational status and informal networks.[11]

Parliamentarians readily acknowledge connections with business. Volodymyr Lytvyn, the speaker of Verhovna Rada over the 2002–2006 period, stated in an interview that "Politics is a business. It gives access to economy, possibility to set the rules of the game."[12] Politicians are to a certain extent able to create their own environment which has its inherited principles of regulation and uncertainties and is extremely hostile to newcomers. Therefore, a strong political relationship could be considered as one of the most important intangible assets of any Ukrainian firm.[13]

During the "Orange Revolution" of 2004–2005 bankers supported both sides. While Petro Poroshenko, an owner of "Mriya" bank, supported the pro-Western candidate Viktor Yuschenko, the owners of "PUMB" heavily financed Russian-oriented Viktor Yanukovich.[14] There were also transitions during the parliamentary cycle. For example, Serhiy Buriak, an owner of Brokbusinessbank, was a member of both "Trudova Ukraina" and "Block Julia Timoshenko" during 2002–2006. Hence, patronage is a particularly important feature of Ukrainian economy as a whole and the banking sector in particular as that sector is extremely sensitive to the destabilization in the political system.

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[11]Earlier Shleifer and Vishny (1993) argue that in post-Communist countries numerous bureaucrats are bribed (as bribing only one person does not guarantee success) to acquire government permits.

[12]http://www.obozrevatel.com/news/2006/3/5/94784.htm

[13]See also http://maidan.org.ua/wiki/index.php/UkrStrategicSecurity

[14]"PUMB" stands for "Pershyj Ukrainsky Mizhnarodnyj Bank" (First Ukrainian International Bank).

2.3   Linking the members of Parliament to banks

The literature follows several approaches to link political activities of parliament members and firms. For instance, a company can be considered well-connected if the company's large shareholders or top managers include a member of parliament, minister or head of state, or if managers are closely related to top officials.

In this paper, we scrutinized the biographies of each of the 467 deputies who served as a member of Parliament over the 2002–2006 period.[15] We consider that the deputy is *affiliated* with a bank if prior to the election the deputy was a member of the board of a bank, worked in bank management, or served on the board of a business group that included banks. This identification procedure also has a pitfall. We can only identify "patronage" links in the Ukrainian legislative body, as we are unable to identify links to government ministries or to the Central Bank. Nevertheless, the route we follow is intriguing and valuable because the support of parliamentarians is extremely important for firms' minimization of transaction costs associated with government bureaucracy. In addition, deputies set the rules of the game by imposing additional entry barriers such as statutory capital requirements. Finally, connections to legislative power enhance firms' probability of winning tenders for participation in the privatization process or for handling the transactions of state institutions.

Once we identify the name of the member of the parliament who occupied the aforementioned positions, we collect monthly information on the activities of these members. We then aggregate these characteristics and merge them with our bank level data. Overall we find that most banks have only one affiliated deputy. In only two cases we observe multiple affiliations: Brokbusinessbank and Ukrsotsbank have two and three affiliated parliament members, respectively. In total, we discover that 25 deputies were affiliated with 22 banks over the period our investigation is carried out. Hence, we track the behavior of these 22 banks and see if they differ from the rest of the banks operating in Ukraine.

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[15]The dates of the Parliament dataset encompass those of the bank dataset because deputies are elected for a four-year term (from March 31, 2002 to March 26, 2006). The number of deputies that we investigate exceeds 450 due to the inflow of newly appointed members to the parliament during the by-elections for deputies replaced as a result of resignations or deaths.

3 Data description

We use two data sets in our analysis. The first dataset contains detailed quarterly balance sheet information for all Ukrainian banks, as published on the official National Bank of Ukraine (NBU) website. The NBU issues a monthly bulletin, *Visnyk NBU* containing detailed financial information on all Ukrainian banks.[16] In order to alleviate the influence of extreme observations, bank-level variables are winsorized at the most extreme (top and bottom) one percent level of the distribution on an annual basis.[17] We also exclude banks with fewer than five quarters of available data as they are either newly-chartered banks or banks that have been liquidated. After all screenings our sample size consists of about 1,300 bank-quarter observations from 2003Q3 to 2005Q2.

Table 1 provides descriptive statistics for all banks (Panel A), for non-affiliated banks (Panel B), and for affiliated banks (Panel C). The median ROE_t and $MARGIN_t$ is almost equal among all three panels. The average return on equity for Ukrainian banks is lower (0.05) compared to European banks, which have an ROE of 0.07–0.08 (Goddard, Molyneux and Wilson (2004)). The average ratio of deposits to total assets is 20 per cent higher for deputy-affiliated banks. Affiliated banks are over four times larger than non-affiliated banks in terms of mean or median total assets. While it would appear that affiliated banks are more highly leveraged, this is not reflected in those banks' return on equity (ROE_t). We might expect that investors would require a higher return to hold the equity of a seemingly riskier enterprise, but in the absence of well-developed capital markets this seeming contradiction may merely reflect investors' willingness to hold shares in certain banks for strategic reasons, such as preparing the bank for a sale to foreign investors.

The second data set is on deputies affiliated with banks. It is hand-gathered from the Internet.[18] There is detailed information on the deputy's session attendance. As

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[16]These data are available in Ukrainian and may be downloaded from the NBU website, `http://www.bank.gov.ua/Bank_supervision/index.htm`

[17]Removing observations with extreme values rather than winsorizing the data does not change our qualitative findings. Results from the prior method are available from the authors on request.

[18]The website `http://www.deputat.org.ua` was the main source of the data.

mentioned above in section 2.2, we explored the biographies of each of 467 deputies who were members of parliament during 2002–2006. We calculated $SHARE_i$ as the number of parliamentary sessions attended as a fraction of the total number of sessions. This attendance fraction is interacted with the dummy that indicates whether the bank has affiliated deputies. The interaction captures the notion of attendance conditional on being affiliated.

The last row of Panel C of Table 1 reports the descriptive statistics of $SHARE_i$ for the deputies that are linked to banks. The mean is quite high: 91 per cent of total Verhovna Rada sessions are attended by the average deputy.

4 Empirical Results

4.1 The Empirical Model

In order to empirically investigate the link between bank operation and patronage we use two forms of a simple performance equation. In our context, it is important to recognize that merely identifying political connections is not sufficient to tease out the effects of political connections on bank behavior for a simple reason. In a panel data context, political affiliation is not observed as varying over time. Standard fixed effects or first difference models will omit any time-invariant factor from the analysis. Nevertheless, we do not want to fit the model in levels, as such a specification would be subject to unobserved (bank-level) heterogeneity.

4.1.1 The first difference model

In the first difference model, we consider an indicator of affiliation, $PATRONAGE_i$, as one of the explanatory factors in a dynamic model of either the bank's interest rate margin or its capitalization ratio:

$$\Delta \Pi_{it} = \beta \Delta B_{i,t-1} + \gamma PATRONAGE_i + \nu_t + \varepsilon_{it} \tag{1}$$

where i is the bank index, t is the time index, and Π_{it} stands for interest margin or the capitalization ratio. The vector B_{it} contains several explanatory variables including the liquidity ratio, loans, deposits, size and overhead expenses. Finally, ν_t is a time fixed effect and ε_{it} is the idiosyncratic error term.

In this model, we are interested in the coefficient of political affiliation, $\partial \Delta \Pi_{it} / \partial PATRONAGE_i$. If this coefficient of political affiliation in the model is significantly positive (negative), it implies that the level of the dependent variable is steadily increasing (decreasing) for affiliated banks vs. non-affiliated banks. Note that there may be some room for mutual compensation effects between patronage and the dependent variable, if the last preceding increase of the dependent variable was positive. For example a downward shifting effect of patronage may be partly offset by the effect of the preceding increase in the interest margin. In this case the joint effects of patronage and the preceding growth rate of the dependent variable are also relevant for the estimation. Figures 4 and 5 illustrate that both the interest rate margin and the capitalization ratio exhibit cyclical patterns over the sample period at the industry level. It is thus advisable to allow political affiliation to have differing effects depending on the sign of the growth rate of the dependent variable.

Given this rationale, we consider an expanded version of this specification in which $PATRONAGE_i$ is interacted with an indicator of lagged positive growth in the dependent variable: $PATRONAGE_i \times \Delta \Pi_{i,t-1}^+$ where $\Delta \Pi_{i,t-1}^+$ is an indicator of positive growth ($\Delta \Pi_{i,t-1} > 0$). The specification becomes

$$\Delta \Pi_{it} = \beta \Delta B_{i,t-1} + \gamma PATRONAGE_i + \theta(PATRONAGE_i \times \Delta \Pi_{i,t-1}^+) + \nu_t + \varepsilon_{it} \quad (2)$$

Equation (2) is bank- and time-specific. It is estimated with time fixed effects on pooled bank-quarter data. Ordinary least squares with cluster-robust standard errors is employed, using *bank* as the clustering variable, to allow for arbitrary heteroskedasticity and autocorrelation.[19] The effect of affiliation on the change in the dependent variable (either interest rate margin or capitalization ratio) is allowed to vary depending on the sign of past growth.

4.1.2 The dynamic panel data model

We now examine an alternative specification of political affiliation to investigate whether the *intensity* of the deputy's activity in parliament matters for performance of the affiliated bank. This leads to the following form of the performance equation:

$$\Pi_{it} = \alpha_0 + \alpha_1 \Pi_{i,t-1} + \beta B_{it} + \gamma SHARE_{it} + \xi_t + \nu_i + \varepsilon_{it} \quad (3)$$

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[19]See Baum (2006), pp. 138–139.

where $SHARE_i$ is nonzero for banks with affiliated deputies and zero for banks lacking a parliamentary affiliation, and ν_i is a bank fixed effect. We estimate equation (3) using the system dynamic panel data (DPD) estimator. System DPD combines equations in differences of the variables with equations in levels of the variables. In this "system GMM" approach (see Blundell and Bond (1998)), lagged levels are used as instruments for differenced equations and lagged differences are used as instruments for level equations. The models are estimated using a first difference transformation to remove the individual firm effect. The reliability of our econometric methodology depends crucially on the validity of instruments, which can be evaluated with Sargan's test of overidentifying restrictions, asymptotically distributed as χ^2 in the number of restrictions. A rejection of the null hypothesis that instruments are orthogonal to errors would indicate that the estimates are not consistent. We also present test statistics for first-order and second-order serial correlation in the error process. In a dynamic panel data context, we expect first-order serial correlation, but second-order serial correlation will not be present if the instruments are appropriately uncorrelated with the errors.

4.2   Empirical findings

Our empirical results are given in Tables 2 and 3. Table 2 lays out the results for the model in first differences and Table 3 depicts those for the dynamic panel data specification.

The first column of Table 2 indicates that affiliated banks' performance does not differ from that of unaffiliated banks in terms of changes in banks' interest rate margin. When positive margin growth is interacted with the patronage indicator, however, the effects of patronage become significant. Therefore, after controlling for bank-specific characteristics, the affiliated banks are likely to earn a lower (higher) interest margin when lagged margin growth is negative (positive). This might be explained by different goals driving the decisions of affiliated and non-affiliated banks. For example, affiliated banks are more likely to supply funds to enterprises with concessionary terms, such as below-market interest rates, as a form of implicit bank subsidy (Legeida, 2001). Figure 4 confirms that patronage has had significant time-varying effects on Ukrainian bank activities. The deputy-affiliated banks have gener-

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ally earned a lower interest rate margin than have non-affiliated banks. However, this relationship has a strong seasonal effect, reflecting the seasonality of the Ukrainian economy. Besides variations in consumption, payments for many short-term loans are scheduled so that firm make payments when they are generating cash (e.g., in the last quarter), and have few or low payments when they are not generating much cash (e.g., in the first quarter).[20]

We also estimate equation (1) with the capitalization ratio as the dependent variable. In this specification the effect of patronage is clearly positive, while the interaction term with positive growth in capitalization is not significant. This implies that affiliated banks significantly increase their capital-to-asset ratios, *ceteris paribus*, relative to unaffiliated banks. Figure 5 plots the dynamics of the capitalization ratio for affiliated and non-affiliated banks. Although the affiliated banks have lower capitalization ratios, the gap between affiliated and non-affiliated banks shrinks toward the end of the sample. The largest effect occurs in 2004Q4, which could be explained by news about the potential entrance of foreign banks.

Having established the presence of a role for political patronage in bank performance, we next investigate whether the *intensity* of the deputy's parliamentary activities affects the bank's interest rate margin or capitalization ratios in a dynamic setting as given in equation (3).[21]

The first column of Table 3 displays results of the Blundell–Bond two-step system GMM estimator with interest rate margin as a dependent variable. The $SHARE_i$ variable, proxying the intensity of political patronage, has a negative and significant coefficient at the 1% level of confidence. A one per cent increase in $SHARE_i$ decreases the interest rate margin by 1.46 per cent of its current value, or about five basis points for the average bank. This could be reflecting the fact that the most active deputies have greater opportunities to establish profitable connections. They are also more

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[20]As the estimated equation contains a set of time fixed effects, seasonal dummy variables cannot be employed. We reestimated the equation with seasonal dummy variables in place of time fixed effects and obtained qualitatively similar results.

[21]Instruments for GMM-SYSTEM estimation are from $t-3$ to $t-6$ ($t-2$ to $t-4$) lags of levels and differences for $MARGIN_{t-1}$ ($CAPRATIO_{t-1}$), $LOANS_t$, $DEPOSITS_t$, $LIQUIDITY_t$ $OVERHEAD_t$ and $SIZE_t$. Including fewer lags in the instrument set did not affect the qualitative effects of political affiliation measures on either the interest rate margin or the capitalization ratio.

likely to be involved in transactions which can be facilitated by financial support from their affiliated institutions.

In column 2 of Table 3, we display the impact of political affiliation on banks' capitalization ratios. Similar to the models of Table 2, we observe a positive relationship between the political patronage proxy and the capitalization ratio. This outcome provides useful insights into banks' optimization decisions. Changes in political patronage, proxied by the activities of bank-affiliated deputies, will not only affect banks' performance but also their capital structure. Consequently, after capitalization increases, banks tend to be more attractive to foreign investors. Therefore, our results suggest that the goals of banks with "gray" political affiliations in transition countries such as Ukraine are different from their counterparts without such linkages. Interestingly, there is a negative link between size and the capitalization ratio. This evidence is in line with our speculation that smaller banks, which tend to be non-affiliated, are likely to maintain a higher capitalization buffer. However, with the stabilization of the Ukrainian economy they can afford to decrease their equity-to-assets ratio.

5   Conclusions

The recent literature on the impact of political connections on bank performance has investigated differences between government-owned vs. private banks. In this paper we pose a slightly different question: did the behavior of Ukrainian banks with unofficial or "gray" political affiliations meaningfully differ from those lacking such affiliations? In doing that we specifically concentrate on the differences among banks' interest rate margin and capitalization ratios.

We find that political affiliation leads to a negative impact on banks' interest rate margins. Affiliated banks tend to have interest rate margins that are lower than the margins of non-affiliated banks. A bank that is making loans for politically-motivated ends (e.g. in return for its affiliated deputies exerting influence on its behalf in legislation or regulation) is sub-optimizing relative to a profit-maximizing bank operating on more objective criteria. However, such a bank may be attracting a larger customer base by offering more attractive loan and deposit rates, thus enhancing its value to a foreign investor by increasing market share at the expense of short-term profitabil-

ity. Similarly, the affiliated banks are observed to increase their capitalization ratios relative to those of unaffiliated banks. The activity of affiliated politicians negatively influences banks' interest rate margins and positively influences their capitalization ratios. Given that several of the affiliated banks have been merged with foreign banks over the last few years, our findings lend support to the conjecture that a strong underlying motive for affiliated banks' behavior may be to attract foreign investors and to provide their own domestic proprietors with the benefits of a successful merger.

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Appendix 1: Variable Definitions and Sources

Bank Characteristics from http://www.bank.gov.ua

ROE_t: before tax profit over equity
$MARGIN_t$: interest revenues minus interest expenses over total assets
$LOANS_t$: total loans over total assets
$SIZE_t$: log of total assets
$DEPOSITS_t$: all short term and long term deposits over total assets
$OVERHEAD_t$: personnel expenses and administrative expenses over total assets
$LIQUIDITY_t$: cash and equivalents over total assets
$CAPRATIO_t$: equity over total assets

Deputy Characteristics from http://www.deputat.org.ua

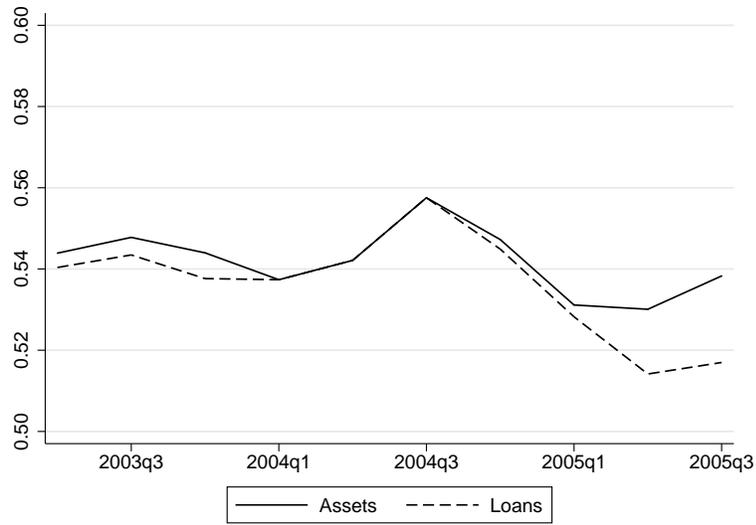$SHARE_i$: number of parliamentary sessions attended over total number of parliamentary sessions

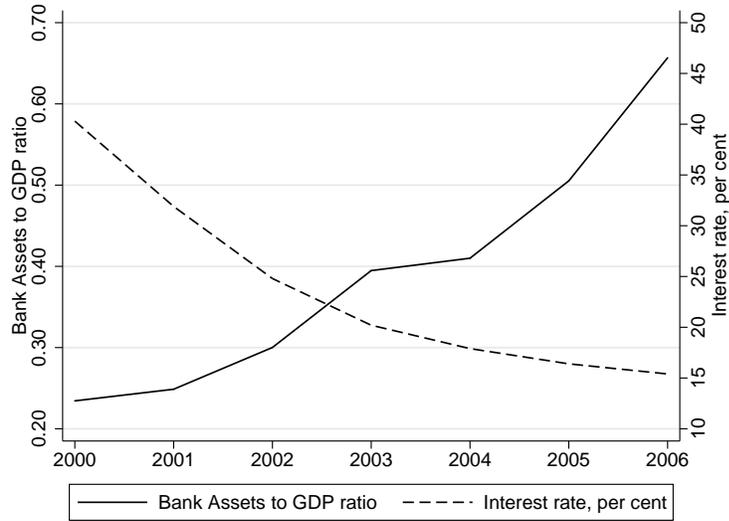Figure 1: Share of top ten Ukranian banks.

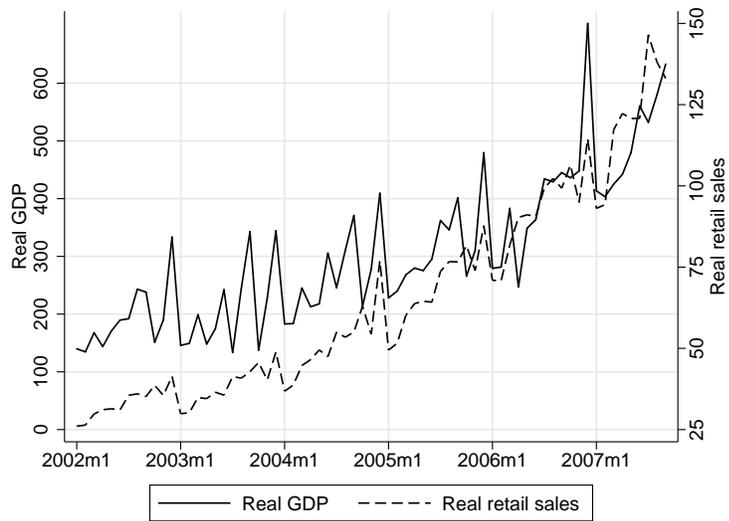Figure 2: Dynamics of bank assets to GDP ratio and interest rate on credit in domestic currency.

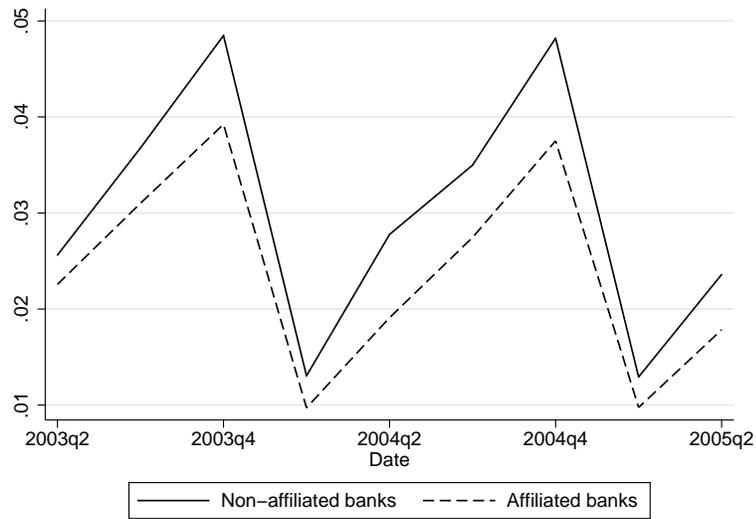Figure 3: Ukranian real GDP and retail sales.

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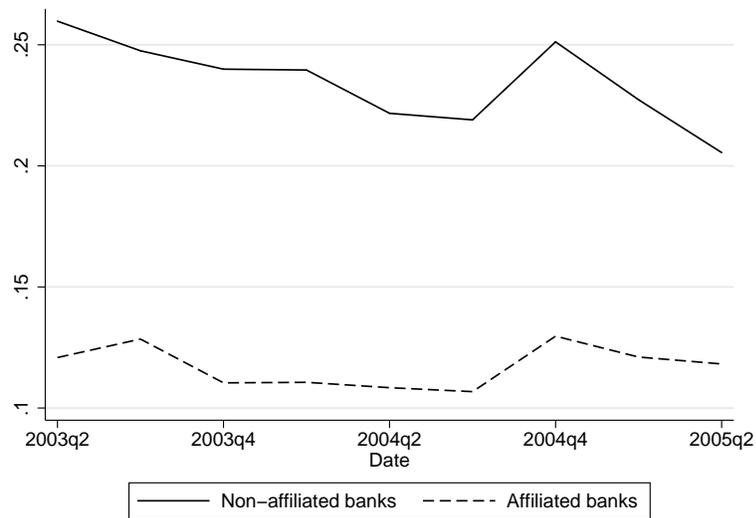Figure 4: Dynamics of Margin for affiliated and non-affiliated banks.

Figure 5: Dynamics of Capratio for affiliated and non-affiliated banks.

Table 1: Descriptive statistics for Ukranian banks, 2003Q3–2005Q2.

	μ	σ	$p25$	$p50$	$p75$	N
Panel A: *All banks*						
ROE_t	0.05	0.17	0.01	0.03	0.06	1343
$MARGIN_t$	0.03	0.02	0.02	0.03	0.04	1339
$LOANS_t$	0.61	0.16	0.52	0.64	0.72	1336
$DEPOSITS_t$	0.55	0.19	0.44	0.58	0.70	1338
$LIQUIDITY_t$	0.09	0.07	0.05	0.07	0.11	1339
$OVERHEAD_t$	0.03	0.02	0.02	0.03	0.04	1337
$CAPRATIO_t$	0.27	0.19	0.13	0.20	0.34	1338
TA_t	7.90	18.76	1.05	2.27	5.69	1349
Panel B: *Non-Affiliated banks*						
ROE_t	0.04	0.10	0.01	0.03	0.06	1162
$MARGIN_t$	0.03	0.02	0.02	0.03	0.04	1150
$LOANS_t$	0.61	0.17	0.52	0.63	0.73	1147
$DEPOSITS_t$	0.53	0.19	0.41	0.57	0.68	1149
$LIQUIDITY_t$	0.09	0.07	0.05	0.07	0.11	1150
$OVERHEAD_t$	0.03	0.02	0.02	0.03	0.04	1148
$CAPRATIO_t$	0.29	0.19	0.14	0.23	0.38	1150
TA_t	5.63	15.32	0.89	1.96	4.26	1158
Panel C: *Affiliated banks*						
ROE_t	0.06	0.39	0.01	0.03	0.07	191
$MARGIN_t$	0.02	0.02	0.01	0.02	0.03	189
$LOANS_t$	0.62	0.12	0.56	0.65	0.69	189
$DEPOSITS_t$	0.67	0.14	0.59	0.71	0.75	189
$LIQUIDITY_t$	0.08	0.06	0.05	0.08	0.10	189
$OVERHEAD_t$	0.03	0.02	0.02	0.03	0.05	189
$CAPRATIO_t$	0.13	0.05	0.09	0.12	0.18	188
TA_t	21.71	29.05	2.77	8.34	29.48	191
$SHARE_i$	0.91	0.14	0.90	0.95	0.98	191

Note: p25, p50 and p75 represent the quartiles of the distribution, N is sample size, while σ and μ represent its standard deviation and mean respectively. Total Assets, TA are reported in millions of Ukrainian Hryvnias.

Table 2: Determinants of Ukranian bank performance: First difference model.

	$MARGIN_t$	$MARGIN_t$	$CAPRATIO_t$	$CAPRATIO_t$
$LOANS_{t-1}$	0.0158***	0.0156***	-0.0447*	-0.0447*
	(0.0057)	(0.0057)	(0.0254)	(0.0255)
$DEPOSITS_{t-1}$	-0.0032	-0.0024	-0.0239	-0.0238
	(0.0064)	(0.0065)	(0.0345)	(0.0346)
$LIQUIDITY_{t-1}$	0.0176***	0.0171***	0.0992**	0.0992**
	(0.0065)	(0.0064)	(0.0479)	(0.0479)
$SIZE_{t-1}$	0.0105***	0.0106***	0.0036	0.0036
	(0.0028)	(0.0028)	(0.0170)	(0.0171)
$Patronage_t$	0.0005	-0.0028**	0.0054**	0.0052*
	(0.0010)	(0.0012)	(0.0027)	(0.0031)
$MARGIN_{t-1}^{(+)}$		0.0047**		
$\times Patronage_t$		(0.0018)		
$CAPRATIO_{t-1}^{(+)}$				0.0007
$\times Patronage_t$				(0.0047)
R^2	0.770	0.770	0.075	0.075
N	979	979	979	979

Note: The regression specifications include a constant term and time dummy variables. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 3: Determinants of Ukranian bank performance: Dynamic panel data model.

	Dependent variable	
	$MARGIN_t$	$CAPRATIO_t$
$MARGIN_{t-1}$	0.2684***	
	(0.0436)	
$CAPRATIO_{t-1}$		0.4211***
		(0.0771)
$LOANS_t$	0.0473***	-0.0565
	(0.0076)	(0.0401)
$DEPOSITS_t$	-0.0200***	-0.3329***
	(0.0076)	(0.0601)
$OVERHEAD_t$	0.2765***	0.8589***
	(0.0794)	(0.1967)
$LIQUIDITY_t$	0.0220	0.1247
	(0.0152)	(0.0858)
$SIZE_t$	-0.0014	-0.0447***
	(0.0014)	(0.0149)
$SHARE_t$	-0.0146***	0.0451**
	(0.0054)	(0.0217)
N of obs.	1,163	1,160
Sargan	0.532	0.644
Sargan d.f.	152	130
AR(1)	-5.27	-3.84
AR(2)	1.76	1.66

Note: Each equation includes a constant term and time dummy variables. Asymptotic robust standard errors are reported in the brackets. Estimation by two-step GMM SYSTEM. Sargan is a Sargan–Hansen test of overidentifying restrictions (p-value reported). Sargan d.f. is the number of overidentifying restrictions. AR(k) is the test for k-th order autocorrelation. Instruments for GMM-SYSTEM estimation are from t-3 to t-6 (t-2 to t-4) lags of levels and differences for $MARGIN_{t-1}$ ($CAPRATIO_{t-1}$), $LOANS_t$, $DEPOSITS_t$, $LIQUIDITY_t$ $OVERHEAD_t$ and $SIZE_t$. * significant at 10%; ** significant at 5%; *** significant at 1%.