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Abstract

In immature democracies, businessmen run for public office to gain direct control over policy, whereas in mature democracies they typically rely on other means of influence. We develop a simple model to show that businessmen run for office only when two conditions hold. First, as in many immature democracies, institutions which make renegeing on campaign promises costly must be poorly developed. In such environments, office holders have monopoly power which can be used to extract rents, and businessmen may run to capture those rents. Second, however, the returns to businessmen from policy influence must not be too large, as otherwise the endogenous rents from holding office draw professional politicians into the race, crowding out businessmen candidates. Analysis of data on Russian gubernatorial elections supports these predictions, showing that 1) businessman candidates are less likely in regions with high media freedom and government transparency, institutions which raise the cost of renegeing on campaign promises, and 2) businessman candidates are less likely in regions where returns to policy influence (measured by regional resource abundance) are large, but only where media are unfree and government nontransparent.

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In mature democracies, businessmen influence public policy by lobbying elected officials and providing campaign finance to professional politicians. In immature democracies, businessmen often employ an alternative strategy, running for public office themselves in order to further their business interests despite high opportunity costs of doing so. What accounts for this difference in behavior? Why should businessmen in some political environments bypass “conventional” means of influence and directly participate in politics? This paper addresses these questions.

Businessmen are active in the political arenas of many immature democracies. In the contemporary world, the “tycoons” who dominate party politics in Thailand and “oligarchs” who hold political office at all levels of government in Russia and Ukraine are prominent examples.¹ “Businessman candidates” appear to be much less common in established democracies, but the situation was once different in many countries which today have mature democratic institutions. For example, railroad magnates frequently held public office in the nineteenth-century U.S. (Leland Stanford is only the best known example), American cities were governed for decades before the First World War by local business elites, the late-nineteenth-century Reichstag was populated to a large extent by businessmen, and Latin American parliaments in the early twentieth century were dominated by estate owners.²

Arguably common to all these examples, and to immature democracies more generally, is the absence of institutions which make it costly to renege on campaign promises (Persson and Tabellini, 2000; Robinson and Verdier, 2002; Djankov et al., 2003; Keefer and Vlaicu, 2005; Keefer, 2006). For example, media freedom and government transparency are both essential for citizens to be able to identify the relationship between electoral promises and ac-

¹See, for instance, Laothamatas (1988) and Bunkanwanicha and Wiwattanakantang (2006) on Thailand; Barnes (2003), Orttung (2004), Hale (2005), and Kryshstanovskaya (2005) on Russia; and “Kyiv Developer Eyes Rada, Council Seats,” *Kyiv Post*, March 28, 2002, “Ukrainian Paper Profiles New Lviv Mayor,” *Ukrayina Moloda* (BBC Monitoring), April 4, 2003, and “Banker Wins Ukrainian By-Election,” Ukrainian Television First Channel (BBC Monitoring), June 9, 2003 on Ukraine.

²Crandall (1950) discusses the political participation of railroad barons. Various authors have emphasized the business background of 19th-century American urban political elites; see, e.g., Dahl (1961); Bradley and Zald (1965); Pessen (1972); Kipp III (1977). Sheehan (1968) provides an account of German businessmen in the 19th-century Reichstag. Zeitlin, Neuman and Ratcliff (1976) discuss the role of estate owners in the Chilean parliament in the early twentieth century.

tions once in office, and so to punish office holders who have broken campaign promises (e.g., Sen, 1999; Reinikka and Svensson, 2005; Besley and Prat, Forthcoming). Strong political parties serve a similar function, acting as reputational mechanisms which provide disincentives for individual politicians to behave opportunistically (e.g., Alesina and Spear, 1988; Cox and McCubbins, 1994; Aldrich, 1995). These institutions play an important role in disciplining politicians in mature democracies, and are typically poorly developed in immature democracies. We argue that this is the key to understanding the phenomenon of businessman candidacy: businessmen run for office only in the absence of institutions which make renegeing on campaign promises costly. We find support for our arguments in an empirical study of gubernatorial elections in contemporary Russia, a country with substantial regional variation in the quality of political institutions.³

We explore the consequences for businessman candidacy of the presence or absence of such institutions with a simple model of political competition in which campaign promises may or may not be binding. As in the “citizen candidate” models of Osborne and Slivinski (1996) and Besley and Coate (1997), entry is endogenous: both professional politicians and businessmen may enter the race. At stake is a policy over which businessmen have conflicting preferences. Businessmen can influence policy in three ways: by lobbying the election winner for favorable policy treatment (but only when the election winner is unconstrained by electoral promises), by providing campaign finance ex-ante (a strategy useful only when campaign promises are binding), or by running for election. The main assumption of the model is that a businessmen’s opportunity cost of running for public office is higher than a professional politician’s. Unlike politicians, businessmen also have businesses to run while campaigning for public office. Campaigning requires enormous time and effort, both of which must be diverted from business.⁴ Moreover, businessmen may need to spend additional time and

³One prominent example of a businessman candidate in the contemporary world actually comes from a mature democracy. Italy’s Silvio Berlusconi is the exception that proves the rule: Berlusconi was able to maintain control of his media empire even while serving as Italy’s prime minister. The apparent conflict of interest has often been characterized as a threat to Italy’s democratic institutions (see, e.g., Blatmann, 2003).

⁴The following example may help to make the point: Alexander Khloponin, CEO of Russian nickel gi-

money to overcome any advantage in political skill enjoyed by professional politicians.

Our model produces three key results. First, businessmen do not run for public office when campaign promises are binding, as the logic of political competition forces both businessman and politician to adopt the same electoral platform, regardless of whether or not campaign finance plays a role in the race. Given differences in opportunity costs of electoral participation, businessmen sit out the race and pay professional politicians to run in their place. Second, businessmen may run for public office when campaign promises are not binding. In this case, policy is chosen by an election winner unconstrained by electoral promises. The winner may, of course, be lobbied by businessmen, so businessmen run both to save on lobbying costs and to acquire additional rents by being on the receiving end of the lobbying process. Third, when campaign promises are not binding, businessman candidates are less likely when their returns from policy influence are *high*. This paradoxical result follows from the nature of policy choice when campaign promises are not binding. With the election winner in a position to earn rents by granting or denying favors to businessmen, there is a gain from holding office for professional politicians as well as businessmen. Given professional politicians' lower opportunity costs of running, businessmen are thus crowded out of the race when returns from policy influence are large.

We test the predictions of this model using a comprehensive database on the business affiliation of all Russian gubernatorial candidates between 1991 and 2005. Regarding the first two predictions, we find that two measures of the regional institutional environment – media freedom and government transparency – are negatively associated with the likelihood of businessman candidacy. As both media freedom and government transparency raise the

ant Norilsk Nickel (the world's largest producer of nickel and palladium), was elected governor of Taimyr Autonomous Okrug in February 2001, and subsequently elected governor of Krasnoyarsk Krai in September 2002. After Khloponin entered politics Norilsk Nickel was eventually compelled to transfer Mikhail Prokhorov, one of the two controlling owners of Norilsk Nickel, to the city of Norilsk in order to oversee day-to-day management of the company. In addition to the obvious cost of diversion of talent from other activities, there was the additional fact that Prokhorov – one of Russia's ten richest individuals, with a net worth of over five billion dollars – had to forsake his comfortable existence in Moscow and the south of France for life above the Arctic Circle in a city with a mean annual temperature of 14.4 degrees Fahrenheit (-9.8 degrees Celsius).

cost of reneging on campaign promises, we interpret this as support for the hypothesis that businessmen candidates are less likely when campaign promises are binding. We also find that a measure of the strength of political parties is negatively, though often insignificantly, associated with businessman candidacy. Regarding the third prediction, we find evidence of a crowding-out effect only in the presence of weak institutions: rents from holding office, proxied by the share of regional employment in resource extraction, are negatively associated with the incidence of businessman candidacy when government is nontransparent and media unfree.

Our work complements Li, Meng and Zhang (2006), who examine the influence of market, rather than political, institutions on participation by Chinese entrepreneurs in politics. More generally, we contribute to the literature on the impact of institutions on economic and political outcomes (e.g., Shepsle and Weingast, 1979; North and Weingast, 1989; Knack and Keefer, 1995; Porta et al., 1997, 1999; Acemoglu, Johnson and Robinson, 2001, 2002; Glaeser et al., 2004; Persson and Tabellini, 2005). Because a businessman's opportunity cost of political participation is higher than that of a professional politician, his decision to run for office himself depends on whether his opportunity cost of running is offset by any gain from control over the policy process, a tradeoff affected by the institutional environment in which the participation decision is made (Bartels and Brady, 2003; Besley, 2005; Besley, Pande and Rao, 2006).

Our analysis also has parallels in the theory of the firm (Coase, 1937; Williamson, 1975, 1985; Klein, Crawford and Alchian, 1978; Grossman and Hart, 1986; Hart and Moore, 1990) and its application to politics (Shleifer and Vishny, 1994). We study the *political* boundaries of the firm: the choice between running for public office oneself and paying a politician to run in one's place.

The paper is organized as follows. In Section 1 we present a simple model of businessman candidacy. We test the predictions of this model using data from Russian gubernatorial elections in Section 2. We offer concluding thoughts in Section 3.

1 A Simple Model of Businessman Candidacy

In this section we present a simple model to identify the conditions under which businessmen run for office. We assume a political economy populated by a large but finite number of businessmen, a large but finite number of politicians, and a continuum of voters. Both businessmen and politicians are potentially candidates for office. At issue in the election are policies which are important to the businessmen, and over which the businessmen have conflicting preferences. Politicians, in contrast to businessmen, are indifferent over the set of policies.

Both businessmen and politicians desire holding office for its own sake, and receive an exogenous payoff (formal compensation) of v if they win the election. However, they differ in their opportunity cost of running, where any businessman incurs a cost $k > 0$ if he runs, whereas any politician incurs a cost of $\delta > 0$ if he runs. The key assumption of the model is that running for office is more costly for businessmen than for professional politicians. In particular, we assume that $\delta < \frac{v}{2} < k$. This assumption implies that if only the exogenous payoff from holding office is at stake then a politician prefers to enter a race that he has a 50-50 chance of winning, but a businessman does not.

The policy space \mathbf{X} is a convex subset of Euclidean space, where we refer to any individual policy as \mathbf{x} , and assume that businessmen have continuous preferences over $\mathbf{x} \in \mathbf{X}$. We denote the utility that any businessman i receives from policy \mathbf{x} as $u_i(\mathbf{x})$. Further, to assure a unique outcome to the lobbying game described below, we assume that for all subsets B of the set of all businessmen from which no more than one businessman is missing, the solution to $\max_{\mathbf{x}} \sum_{i \in B} u_i(\mathbf{x})$ is uniquely defined. In addition, we assume that there is a conflict of interest among businessmen, in the sense that any policy which neglects the interests of only one businessman makes all other businessmen weakly better off, relative to the policy implemented when the interests of all businessmen are taken into account. Formally, we say that for each businessman i and j , with $i \neq j$, $u_i(\mathbf{x}_{-j}) \geq u_i(\bar{\mathbf{x}})$, where: $\mathbf{x}_{-j} \equiv \arg \max_{\mathbf{x}} \sum_{i \neq j} u_i(\mathbf{x})$ and $\bar{\mathbf{x}} \equiv \arg \max_{\mathbf{x}} \sum_i u_i(\mathbf{x})$.

Voters have continuous preferences over policies in \mathbf{X} and cast their ballot for the candidate whose expected policy choice they most prefer. If there is more than one such candidate then voters decide among those candidates using an equal-probability rule; if there is only one candidate in the race then that candidate wins by default. To capture the idea that businessmen have preferences which may diverge from those of the general population, we assume that voters' preferences are identical with a common most-preferred policy $\hat{\mathbf{x}} \neq \bar{\mathbf{x}}$. For concreteness, one might think of \mathbf{x} as a vector of subsidies to each businessman which must be financed through tax increases or cuts in public-goods provision. We assume that voting is by plurality rule, though given the assumption of voter homogeneity a variety of other voting rules produce the same outcome.⁵

Following candidate entry and prior to voting, each candidate – businessman or professional politician – announces a policy to be implemented after the election. For now, we ignore the potential role of campaign finance, assuming that voters have fixed policy preferences. In Section 1.2 below, we allow for the possibility that businessmen may influence voter preferences and thus the policies adopted during the electoral campaign through the provision of campaign finance.

We are interested in the relationship between businessmen's entry decisions and institutions which make reneging on campaign promises costly. To explore this relationship, we consider two versions of the model. In the first version, we assume that campaign promises are binding, so that the election winner implements the policy announced during the campaign. In the second version, we assume that campaign promises are not binding. In this case, the election winner may costlessly ignore promises made during the election campaign, and may choose any policy $\mathbf{x} \in \mathbf{X}$. Businessmen may attempt to influence this policy choice through the promise of contributions; we model this lobbying process as a “menu auction” as

⁵At the expense of additional notation, we could assume some heterogeneity of voter preferences. For example, employees of businessmen might have different preferences over policy than non-employees. While the logic of spatial competition in a multidimensional policy space implies that there is generically no equilibrium when voters are heterogeneous, an equilibrium does exist and our results hold so long as there is sufficient homogeneity to assure a unique policy in the core (see, e.g., Austen-Smith and Banks, 1999).

in Bernheim and Whinston (1986) and Grossman and Helpman (1994). In particular, in the lobbying game each businessman (with the exception of the winning candidate in the event that a businessman is the election winner) offers a contribution schedule $C_i(\mathbf{x})$ which offers a particular contribution for every policy $\mathbf{x} \in \mathbf{X}$. Following receipt of the schedules, the election winner chooses \mathbf{x} . We assume that the preferences of businessmen over final outcomes can be represented as the sum of $u_i(\mathbf{x})$ and of monetary contributions from lobbying; these contributions are negative for a businessman who does not hold office and provides nonzero contributions in equilibrium, and positive for a businessman who holds office and receives nonzero contributions in equilibrium. Politicians do not have preferences over policy and, therefore, if elected, choose policy to maximize lobbying contributions from businessmen.

All elements of the game are common knowledge. The timing of events is as follows:

1. Entry: Simultaneously and independently, the businessmen and politicians decide whether or not to enter the race.
2. Platform choice: Each candidate promises to implement some policy $\mathbf{x} \in \mathbf{X}$ if elected
3. Election: Voters cast their ballot for the candidate whose expected policy choice they most prefer.
4. Policy choice: In the model with binding campaign promises, the winning candidate implements the policy promised during the campaign. In the model with no commitment to campaign promises, policy is chosen through a lobbying process modeled as a menu auction.

In Section 1.2 we introduce an additional campaign-finance stage following entry and prior to platform choice.

1.1 Equilibrium

We solve for subgame-perfect equilibria of each of the two versions of the model: 1) the model with binding campaign promises, and 2) the model without binding campaign promises. As

we discuss below, we restrict attention to equilibria in which contribution schedules are compensating.

Equilibrium in model with binding campaign promises

When campaign promises are binding, the equilibrium outcome is easy to derive. Clearly, if there are two or more candidates, then any candidate promises to implement voters' most-preferred policy $\hat{\mathbf{x}}$. If every candidate has committed to $\hat{\mathbf{x}}$, then any deviation to some other platform results in that candidate's losing with certainty. In contrast, if some candidate has not committed to $\hat{\mathbf{x}}$, then at least one candidate could increase his probability of winning by deviating to $\hat{\mathbf{x}}$. This implies that every candidate who has entered wins with equal probability, and enough candidates enter to exhaust the exogenous rent from holding office v . The assumption that $\frac{v}{2} > \delta$ implies that an equilibrium always exists, and that in any equilibrium there are at least two candidates, since otherwise some politician would enter to have a chance to win v . In particular, given that at least one politician enters, the number of candidates N_b in equilibrium (where the subscript b refers to binding campaign promises) satisfies

$$\frac{v}{\delta} - 1 \leq N_b \leq \frac{v}{\delta}.$$

The inequality on the left says that no additional politician wants to enter the race, given that N_b candidates enter. Note that if no politician wants to enter then because $k > \delta$ no businessman wants to enter either. The inequality on the right says that some politician finds it worthwhile to enter the race if $(N_b - 1)$ other candidates also enter. (Below we consider the question of whether a businessman candidate would want to stay in the race if there are $(N_b - 1)$ other candidates.) Intuitively, the larger the exogenous payoff from holding office and the smaller the cost of entry, the higher the number of candidates in equilibrium.

We are primarily interested in the conditions under which a businessman would choose to enter the race as a candidate. The following proposition establishes that the *only* circumstance in which a businessman could be in the race when campaign promises are binding is

when he is one of two candidates. As the same policy $\hat{\mathbf{x}}$ is adopted so long as there is some political competition, a businessman in a race with at least three candidates could save the cost of entry and receive the same policy by instead not entering.

Proposition 1. *When campaign promises are binding, the only possible equilibrium with a businessman candidate is a two-candidate equilibrium.*

Proof. We have already established that there is no one-candidate equilibrium. To see that there is no equilibrium with $N \geq 3$ candidates, one of which is some businessman i , assume otherwise. Then the payoff for businessman i in equilibrium is $u_i(\hat{\mathbf{x}}) + \frac{v}{N} - k$. In contrast, if businessman i deviates by not entering his payoff is $u_i(\hat{\mathbf{x}})$. As $k > \frac{v}{2}$ by assumption, the payoff from deviation is greater. Thus, there is no equilibrium with $N \geq 3$ candidates, and the only possible equilibrium with a businessman candidate is a two-candidate equilibrium.

Q.E.D.

A two-candidate equilibrium with a businessman candidate may exist, even though the exogenous rent from holding office is not high enough to justify the opportunity cost of running for a businessman. To see this, observe that the payoff for businessman i in such an equilibrium is $u_i(\hat{\mathbf{x}}) + \frac{v}{2} - k$. In contrast, businessman i 's payoff from deviating by not entering is equal to his utility from the policy most preferred by the other candidate: if businessman i does not enter the other candidate runs alone and so is unconstrained in his choice of policy. Let \mathbf{x}' refer to this policy. Then the payoff for businessman i in equilibrium is greater than the payoff from deviating so long as $k \leq [u_i(\hat{\mathbf{x}}) - u_i(\mathbf{x}')] + \frac{v}{2}$, which is the case so long as businessman i 's preference for $\hat{\mathbf{x}}$ over \mathbf{x}' is sufficiently great.

Any two-candidate equilibrium with a businessman candidate, however, is inefficient. The only reason the businessman stays in the race is his fear of the policy that would be implemented if he were to leave the other candidate unopposed. But any other candidate could play the same role, introducing political competition and forcing policy to $\hat{\mathbf{x}}$. Further, a politician could play this role more cheaply than the businessman could, because by

assumption the opportunity cost of running is less for politicians. Thus, the businessman could agree with a politician for the politician to enter in his place. As the businessman saves $(k - \frac{v}{2})$ by having somebody else run in his place, in principle, he would be willing to pay the politician to do so. However, even in the absence of such an agreement the deal will stick: the politician will want to enter given that the businessman does not because his expected payoff from entry $\frac{v}{2}$ is greater than the opportunity cost of running δ .

Proposition 2. *When campaign promises are binding, any equilibrium with a businessman candidate is Pareto dominated by a two-candidate equilibrium with no businessman candidates.*

Proof. See above.

Q.E.D.

Propositions 1 and 2 together suggest that businessman candidates should be unlikely in the presence of institutions which make renegeing on campaign promises costly.

Equilibrium in model without binding campaign promises

When campaign promises are not binding, the election winner is unconstrained by his campaign promise. Policy is thus chosen after the election through a menu auction, where each businessman i (but the election winner, if a businessman) provides the election winner with a contribution schedule $C_i(\mathbf{x})$ which offers a particular contribution for every policy $\mathbf{x} \in \mathbf{X}$. We restrict attention to equilibria in which contribution schedules are *compensating*, i.e., those for which differences in promised contributions reflect differences in the businessman's utility from different policies, subject to the constraint that contributions are not negative. Bernheim and Whinston (1986) show that any compensating equilibrium of a menu-auction game is jointly efficient.⁶ This implies that regardless of who wins the election the policy implemented is $\bar{\mathbf{x}} \equiv \arg \max_{\mathbf{x}} \sum_i u_i(\mathbf{x})$, where we recall that politicians (once in office) care

⁶Bernheim and Whinston refer to compensating equilibrium as “truthful” equilibria. We follow Grossman and Helpman (1994) in using the term “compensating,” which emphasizes that differences across policies in promised contributions must compensate the businessman for changes in his policy utility.

only about maximizing lobbying contributions and that the payoff for any businessman is linear in contributions. Intuitively, the fact that contribution schedules are compensating means that the election winner fully internalizes the impact of changes in policy on each businessman’s utility. In particular, this is the case regardless of whether the election winner is a politician (in which case the election winner chooses the policy jointly efficient among all businessmen) or a businessman (in which case the election winner internalizes the effect of changes in policy on his own utility and on the utilities of every other businessman).⁷ Anticipating the outcome of the lobbying game, voters are indifferent among candidates when campaign promises are not binding. Consequently, if there are N candidates each wins with probability $\frac{1}{N}$.

Even though the equilibrium policy is the same regardless of the election winner, the distribution of rents is not. A politician who wins receives lobbying contributions from all businessmen, whereas a businessman who wins saves on his own lobbying contribution and receives contributions from all other businessmen. The following proposition establishes that there is thus a common endogenous rent from holding office, regardless of the identity of the election winner.

Proposition 3. *When campaign promises are not binding, there is an endogenous rent R from holding office common to all election winners – politicians and businessmen. This rent is given by the following expression:*

$$R = \sum_j \sum_{i \neq j} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})], \quad (1)$$

where $\mathbf{x}_{-j} \equiv \arg \max_{\mathbf{x}} \sum_{i \neq j} u_i(\mathbf{x})$ and $\bar{\mathbf{x}} \equiv \arg \max_{\mathbf{x}} \sum_i u_i(\mathbf{x})$.

Proof. First, consider the case of an election winner who is a politician. In equilibrium the

⁷This sharp prediction follows from the assumption that politicians care about lobbying contributions but not about policy. Exploring the consequences for businessman candidacy when politicians also care about policy may be a useful direction for future research, but the assumption of purely opportunistic politicians captures the central idea that the distribution of rents depends on the identity of the election winner when campaign promises are not binding.

contribution by each businessman j must leave the politician indifferent between (a) implementing $\bar{\mathbf{x}}$ and receiving $\sum_i C_i^P(\bar{\mathbf{x}})$, where $C_i^P(\cdot)$ is the equilibrium contribution schedule provided by businessman i when a politician is the election winner, and (b) walking away from businessman j 's offer and implementing \mathbf{x}_{-j}^P , where $\mathbf{x}_{-j}^P \equiv \arg \max_{\mathbf{x}} \sum_{i \neq j} C_i^P(\mathbf{x})$. Using the assumption that contribution schedules are compensating, we may rewrite this as

$$\mathbf{x}_{-j}^P \equiv \arg \max_{\mathbf{x}} \sum_{i \neq j} \max [u_i(\mathbf{x}) - (u_i(\bar{\mathbf{x}}) - C_i^P(\bar{\mathbf{x}})), 0].$$

This is equal to $\mathbf{x}_{-j} \equiv \arg \max_{\mathbf{x}} \sum_{i \neq j} u_i(\mathbf{x})$ if $u_i(\mathbf{x}_{-j}) \geq u_i(\bar{\mathbf{x}})$ for each businessman i , which is an assumption of the model. Thus, $\mathbf{x}_{-j}^P = \mathbf{x}_{-j}$.

We can then express the politician's indifference between $\bar{\mathbf{x}}$ and \mathbf{x}_{-j} as $\sum_i C_i^P(\bar{\mathbf{x}}) = \sum_{i \neq j} C_i^P(\mathbf{x}_{-j})$. Using this, we can derive the contribution from businessman j when the election winner is a politician as $C_j^P(\bar{\mathbf{x}}) = \sum_{i \neq j} [C_i^P(\mathbf{x}_{-j}) - C_i^P(\bar{\mathbf{x}})]$. Using again the assumption that contribution schedules are compensating, we can rewrite this as $C_j^P(\bar{\mathbf{x}}) = \sum_{i \neq j} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})]$.

Now consider the case when the election winner is some businessman k . In this case, the contribution by any other businessman j must leave businessman k indifferent between (a) implementing $\bar{\mathbf{x}}$ and receiving $u_k(\bar{\mathbf{x}}) + \sum_{i \neq k} C_i^k(\bar{\mathbf{x}})$, where $C_i^k(\cdot)$ is the equilibrium contribution schedule provided by businessman i when businessman k is the election winner, and (b) walking away from businessman j 's offer and implementing \mathbf{x}_{-j}^k , where

$$\begin{aligned} \mathbf{x}_{-j}^k &\equiv \arg \max_{\mathbf{x}} u_k(\mathbf{x}) + \sum_{i \neq j, k} C_i^k(\mathbf{x}) \\ &= \arg \max_{\mathbf{x}} u_k(\mathbf{x}) + \sum_{i \neq j, k} \max [u_i(\mathbf{x}) - (u_i(\bar{\mathbf{x}}) - C_i^k(\bar{\mathbf{x}})), 0]. \end{aligned}$$

Similarly to the argument above, $\mathbf{x}_{-j}^k = \mathbf{x}_{-j}$ given the assumption that $u_i(\mathbf{x}_{-j}) \geq u_i(\bar{\mathbf{x}})$ for each businessman i . We can then express businessman k 's indifference between $\bar{\mathbf{x}}$ and \mathbf{x}_{-j} as $u_k(\bar{\mathbf{x}}) + \sum_{i \neq k} C_i^k(\bar{\mathbf{x}}) = u_k(\mathbf{x}_{-j}) + \sum_{i \neq j, k} C_i^k(\mathbf{x}_{-j})$, which gives the following equilibrium

contribution for businessman j given that the election winner is businessman k : $C_j^k(\bar{\mathbf{x}}) = [u_k(\mathbf{x}_{-j}) - u_k(\bar{\mathbf{x}})] + \sum_{i \neq j, k} [C_i^k(\mathbf{x}_{-j}) - C_i^k(\bar{\mathbf{x}})]$. Using the assumption that contribution schedules are compensating, we can rewrite this as follows: $C_j^k(\bar{\mathbf{x}}) = [u_k(\mathbf{x}_{-j}) - u_k(\bar{\mathbf{x}})] + \sum_{i \neq j, k} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})] = \sum_{i \neq j} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})]$. Thus, the equilibrium contribution by any businessman not in office is the same regardless of the identity of the election winner. Using $\bar{C}_j(\bar{\mathbf{x}})$ to refer to this contribution, we define the endogenous rent R_P from holding office for any politician as the sum of contributions received from all businessmen: $R_P \equiv \sum_j \bar{C}_j(\bar{\mathbf{x}}) = \sum_j \sum_{i \neq j} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})]$. Similarly, we define the endogenous rent R_k from holding office for any businessman k as the difference between the payoff received when in office (a function of both the policy implemented and the lobbying contributions received) and that when not in office (a function of both the policy implemented and lobbying contribution paid):

$$\begin{aligned} R_k &\equiv \left[u_k(\bar{\mathbf{x}}) + \sum_{j \neq k} \bar{C}_j(\bar{\mathbf{x}}) \right] - [u_k(\bar{\mathbf{x}}) - \bar{C}_k(\bar{\mathbf{x}})] \\ &= \sum_j \bar{C}_j(\bar{\mathbf{x}}) = \sum_j \sum_{i \neq j} [u_i(\mathbf{x}_{-j}) - u_i(\bar{\mathbf{x}})]. \end{aligned}$$

Consequently, there is a common endogenous rent $R \equiv R_P = R_k$.

Q.E.D.

How does the endogenous rent R to be earned by the election winner depend on the political-economic environment? Formally, Expression 1 is the sum of contributions paid by each businessman when the election winner is a politician, and is the sum of contributions paid by all other businessmen when a businessman is the election winner plus the contribution which the election winner would otherwise pay if he were not on the receiving end of the lobbying process. Intuitively, R is bigger when the conflict of interest among businessmen is greater, because then the election winner is able to more effectively play one businessman's interests off of another's.

When campaign promises are binding the circumstances under which businessmen might

choose to run for office are sharply circumscribed. In contrast, when campaign promises are not binding the election winner has monopoly power which may be used to extract rents. Because the only way to extract these rents is to actually hold office, a businessman may be tempted to run. The following proposition gives the precise condition for existence of an equilibrium with a businessman candidate.

Proposition 4. *When campaign promises are not binding, there exists an equilibrium with at least one businessman candidate if and only if there is some integer N such that $\frac{v+R}{\delta} - 1 \leq N \leq \frac{v+R}{k}$.*

Proof. Recall that policy is the same regardless of the election winner, so that voters are indifferent among candidates and so all candidates win the exogenous rent v and endogenous rent R with equal probability. Then no politician (and no businessman because $k > \delta$) who has not entered the race wants to deviate by entering, given that N candidates have entered, if $\frac{v+R}{N+1} - \delta \geq 0$. In addition, no businessman who has entered the race wants to deviate by not entering if $\frac{v+R}{N} - k \geq 0$. These together imply the condition in the proposition. *Q.E.D.*

For δ and k sufficiently close to each other (and thus sufficiently close to $\frac{v}{2}$ because by assumption $\delta < \frac{v}{2} < k$) there is always an N which satisfies the condition in Proposition 4. If, however, the payoff from holding office ($v + R$) is sufficiently large relative to the difference in entry costs of politicians and businessmen, then there is no equilibrium with businessman candidates. Intuitively, when the (exogenous and endogenous) rent from holding office is large, politicians crowd out businessmen: though both may benefit from holding office, the cost of entry for politicians is lower. For a businessman to want to stay in the race the number of candidates must be sufficiently low to guarantee a large enough chance of winning to offset the cost of entry. But when the rents from office are large this requirement is inconsistent with the equilibrium condition that no other politician wants to enter the race.

Proposition 5. *When campaign promises are not binding, there exists no equilibrium with a businessman candidate if the payoff from holding office ($v + R$) is sufficiently large.*

Proof. The condition in Proposition 4 does not hold for any N when $\frac{v+R}{\delta} - 1 > \frac{v+R}{k}$, i.e., when $(v + R) > \frac{\delta k}{k-\delta}$. This is clearly the case for $(v + R)$ sufficiently large. *Q.E.D.*

1.2 Campaign finance

Thus far we have assumed that voters have fixed policy preferences. In this environment, the ability of businessmen to affect the election outcome is limited to entering the race and, when campaign promises are binding, adopting a platform. In practice, voters' preferences, and thus the election outcome, may be influenced by campaign spending. To the extent that businessmen have disproportionate access to funds for campaign finance, one might think that businessmen would be more likely to run for public office even when campaign promises are binding. In fact, this is not the case.

We model the role of campaign finance in the following reduced-form way. At the beginning of the game one voter is chosen at random to be the *opinion maker*. Following entry but prior to platform choice, the opinion maker announces a policy $\mathbf{x} \in \mathbf{X}$, which voters then adopt as their most-preferred policy. The opinion maker most prefers policy $\hat{\mathbf{x}} \neq \bar{\mathbf{x}}$. The opinion maker, however, is susceptible to influence by businessmen, who lobby the opinion maker in a menu auction analogous to the one which follows the election when campaign promises are not binding. In particular, each businessman i offers a contribution schedule $D_i(\mathbf{x})$, which promises a particular contribution for every possible announcement \mathbf{x} of the opinion maker. We assume that the opinion maker maximizes the sum of his payoff from policy \mathbf{x} and from lobbying contributions paid to her. As with the lobbying game which follows the election when campaign promises are not binding, we restrict our attention to equilibria in which contribution schedules are compensating.⁸

⁸An alternative approach would be to assume that some voters have preferences over candidates which are unrelated to candidate platforms and which may be influenced by campaign spending, as in Baron (1994). This setup is analytically intractable with more than two candidates. For the special case of two candidates, however, an analogous result may be derived: businessmen prefer that professional politicians run in their place when campaign promises are binding, as campaign finance may be used to influence voter preferences over candidates – and therefore the platforms adopted by those candidates in equilibrium – whether a businessman runs himself or not.

Consider first the case where campaign promises are binding. Businessmen have an incentive to lobby the opinion maker to influence the campaign promises which candidates make. So long as there are at least two candidates, the policy announced by the opinion maker will be adopted by each candidate, and that policy will be implemented by the election winner. The opinion maker thus acts as policy maker, and lobbying contributions from businessmen follow accordingly. Given the restriction to compensating contribution schedules, the policy announced by the opinion maker is jointly efficient among the opinion maker and the businessmen. Denote this policy as $\tilde{\mathbf{x}}$, and the equilibrium contribution made by businessman i to the opinion maker as $\tilde{D}_i(\tilde{\mathbf{x}})$. The payoff to any businessman i from entering the race, given that there are $(N - 1)$ other candidates, is then $u_i(\tilde{\mathbf{x}}) + \frac{v}{N} - k - \tilde{D}_i(\tilde{\mathbf{x}})$. In contrast, the payoff from deviating by staying out of the race, so long as there are at least two other candidates, is $u_i(\tilde{\mathbf{x}}) - \tilde{D}_i(\tilde{\mathbf{x}})$. Given our assumption that $k > \frac{v}{2}$, the first expression is always less than the second. Therefore, as in the model with no campaign finance, there is no equilibrium with three or more candidates, at least one of which is a businessman candidate. (Similarly, we may show that as in Proposition 2 there may be a two-candidate equilibrium with a businessman candidate, but that this equilibrium is Pareto-dominated by a two-candidate equilibrium with no businessman candidates.) Intuitively, when campaign promises are binding, a businessman need not be in the race to affect the policy which is implemented after the election. Interestingly, if the opinion maker does not care about policy but only about lobbying contributions paid to her, then the equilibrium policy outcome is the same as in the case where campaign promises are not binding and there is no campaign finance.

Now consider the case where campaign promises are not binding. Businessmen have no incentive to lobby the opinion maker. As in the model without campaign finance, voters anticipate that whoever is elected will be unconstrained by campaign promises and so will implement $\bar{\mathbf{x}}$. Given that, campaign promises are meaningless, so voters are indifferent among all candidates regardless of the position adopted by the opinion maker after being

lobbied by businessmen. The condition for existence of an equilibrium with a businessman candidate is then exactly that given by Proposition 4 above.

In summary, even though campaign finance may affect the equilibrium policy outcome (but only when campaign promises are binding), the likelihood of businessman candidates is unaffected. As in the model without campaign finance, businessman candidates are likely only when campaign promises are not binding.

2 Empirical Analysis

Our theoretical model generates two distinct testable hypotheses. First, Propositions 1 and 2 suggest that businessman candidates should be less likely in the presence of institutions which make renegeing on campaign promises costly, as political competition in such an environment forces any candidate – businessman or politician – to adopt a platform consistent with the interests of the general population. Second, Proposition 5 states that when institutions which make renegeing on campaign promises costly are absent, businessman candidates should be less likely when returns to businessmen from policy influence are large, as professional politicians with low opportunity costs of political participation crowd out businessmen with high opportunity costs.

Does the empirical evidence support these predictions? We address this question by examining the incidence of businessman candidates in Russian gubernatorial elections between 1991 and 2005.⁹ Russia provides an ideal empirical setting for two reasons. First, Russia's democratic institutions are immature and so provide few incentives for elected politicians to not break campaign promises. In many regions the media are too biased, and government decision making insufficiently transparent, for citizens to monitor the actions of elected officials (e.g., Akhmedov and Zhuravskaya, 2004; Fish, 2005). Political parties are also weak, increasing the scope for opportunistic behavior by individual politicians (e.g., White, Rose

⁹Regional executives in Russia are known variously as “governor,” “president,” and (in Moscow, which has regional status) “mayor.” For simplicity, we use the term “governor” to refer to any regional executive.

and McAllister, 1997; Rose and Munro, 2002; Colton and McFaul, 2003; Tucker, 2006; Hanson, Forthcoming). This is especially true of regional elections, where few candidates are nominated by political parties, and those parties which are active are often local organizations with little ideological orientation.¹⁰ As a consequence of this institutional weakness, “rather than invest in a candidate’s election,” businessmen “buy the cooperation of [politicians] on particular votes or issues” (Treisman, 1998, p. 14). Consistent with our argument, one might therefore expect the phenomenon of businessmen candidacy to be pervasive, as businessmen seek to extract rents and avoid lobbying costs by holding public office themselves. Indeed, as we show below, approximately sixty percent of Russian gubernatorial elections between 1991 and 2005 had at least one businessmen candidate.¹¹ Second, there is substantial institutional variation across Russia’s 89 regions, in part the result of the political and economic decentralization of the early 1990s (e.g., Shleifer and Treisman, 2000). We exploit this variation to test the model’s predictions by comparing the likelihood of businessman candidacy across different regional political-economic environments.

2.1 Data and measures

Russian gubernatorial elections were held from June 2001 through February 2005. Since then regional executives have been chosen by a system of presidential nomination. In all, there were 247 elections in 88 regions (out of 89 total) during the period of direct gubernatorial election.¹² Each of the 88 regions had at least two and at most five gubernatorial elections,

¹⁰Golosov (2004) reports that party nominees accounted for a mere 15 and 7 percent, respectively, of winning gubernatorial candidates in two election cycles between 1995 and 1999. McFaul (2001) discusses the ideological weakness of regional political parties.

¹¹There is evidence that businessmen are also running in large numbers in other elections in Russia. For example, the Russian newspaper *Kommersant* reports that 77 members (out of 450) of the Duma (the lower house of parliament) elected in 1999, and 66 members elected in 2003, were “direct representatives” of business (“Biznes i Vlast: Zakonodatelnyi Sovet Direktorov [Business and Power: The Legislature as Boardroom],” *Kommersant*, December 26, 2003). Published and unpublished data on business representation in the 2003 Duma gathered by the *Moscow Times* suggest that the latter number may be a substantial underestimate (“Duma Has a Big Business Lobby,” *Moscow Times*, January 20, 2004; Francesca Mereu, *Moscow Times*, private communication).

¹²One region – the republic of Dagestan – never had direct gubernatorial elections; executives were instead appointed by the regional parliament.

with an average of 2.8 elections per region.

We gathered information on the business affiliation of candidates in each of these elections, drawing on two sources: 1) official candidate biographies published by the Russian Central Election Commission, and 2) the Labyrinth database, available at www.labyrinth.ru, which provides biographies of Russian businessmen and politicians. We classified a candidate in a gubernatorial race as a businessman candidate if 1) at the time of the electoral race the candidate was a major owner and/or top manager of a business, and 2) this business was not acquired by the candidate while holding public office. The latter situation describes not a businessman candidate but a professional politician who used public office for private gain. As Table 1 shows, according to this definition there was at least one businessman candidate in 151 of the 247 elections. Of these, in 104 elections a businessman candidate received at least five percent of the vote, and in 66 elections a businessman candidate received at least ten percent of the vote. In all there were seventeen winners who were businessman candidates.

We define the following three dummy variables: 1) businessman candidate, which takes a value of one if there was any businessman candidate in the race, and zero otherwise; 2) businessman candidate with more than five percent of vote, which takes a value of one if there was any businessman candidate in the race who received at least five percent of the vote, and zero otherwise; and 3) businessman candidate with more than ten percent of vote, which takes a value of one if there was any businessman candidate in the race who received at least ten percent of the vote, and zero otherwise. The first variable indicates the presence of any businessman candidate in the race, whereas the second and the third indicate the presence of a “serious” businessman candidate, i.e., of a candidate with a realistic expectation of winning. This distinction is important, as businessmen may have non-electoral incentives to run for office. In Russia in particular businessmen sometimes (mis-)use the free media access guaranteed by law to each electoral candidate in order to advertise their products (Kryshtanovskaya, 2005). We primarily look at “serious” businessman candidates as we are

interested only in businessman candidates who run for electoral reasons.

To test the relationship between institutional environment and the likelihood of (serious) businessman candidates, we consider three characteristics of Russian regions which may reflect constraints on the ability of public officials to renege on campaign promises: media freedom, government transparency, and strength of national political parties. Media freedom and government transparency allow voters to better monitor public officials and so to punish office holders who have reneged on campaign promises. Strong political parties can more easily enforce party discipline and therefore prevent opportunistic behavior by their members. We therefore anticipate that businessman candidates should be less likely in regions with high media freedom, high government transparency, and strong parties. Data sources and summary statistics for these and other independent variables are given in Table 1.

Of these three institutional variables, two are expert ratings available only as cross-sectional data. The index of media freedom is collected and published by the nongovernmental organization “Public Expertise,” and measures restrictions in regional legislation on information dissemination through the media. The index of government transparency is provided by “Media Soyuz,” an independent association of journalists, and measures the extent to which policy decisions made by the executive branch of the regional government (i.e., the governor’s office) were accessible to the general public through the media and publication on official websites. Both indexes were published in 2000 and reflect conditions in Russian regions during the 1990s. We discuss potential endogeneity concerns related to these variables later in the paper. Missing data for these measures and for regional income per capita (discussed below) reduce the number of observations somewhat from the 247 elections in the data set.¹³

We constructed the third variable, a proxy for the strength of national political parties, for each region and each year using information on the party affiliation of candidates for the

¹³The media freedom index was not constructed for eight regions, and the government transparency index for two regions. Russia’s statistical agency did not publish income data separately for autonomous okrugs for some years included in our sample.

Duma, the lower chamber of the Russian parliament. From 1991 to 2005 there were four parliamentary elections in Russia (in 1993, 1995, 1999, and 2003). In each of these elections, one half of the members of the Duma were chosen by majoritarian voting with typically multiple single-member districts (SMDs) in each region; the other half of the seats were filled according to proportional representation with party-list voting in a single national district. According to the electoral rules for these elections, SMD candidates could be nominated either by a political party or by an independent group of voters of a certain minimum size.

We define strength of parties as the proportion of SMD candidates across all districts in a region who were nominated by national political parties in the previous election rather than by independent groups of voters. As there were four parliamentary elections in Russia between 1991 and 2005, this measure varies over time as well as across regions. Over these four elections, 23 percent of all SMD candidates were nominated by national political parties, where we designate a party as national if its national vote in that Duma election exceeded the legal threshold to receive seats through proportional representation.

Testing for any crowding out of businessman candidates by professional politicians requires a measure of the attractiveness of holding gubernatorial office. Our primary focus is the endogenous rent R from holding office: the unofficial “compensation” from lobbying which is received (or saved) by the election winner. We assume that the opportunity to extract such rents is higher in regions with abundant natural resources, as the opportunity to play one businessman off of another may be especially large in such regions (e.g., Sonin, 2003; Acemoglu, Robinson and Verdier, 2004; Mehlum, Moene and Torvik, 2006). Under this assumption, the prediction of the model is that businessman candidates should be less likely in regions which are rich in natural resources, but only in the absence of institutions which make renegeing on campaign promises costly. We test this prediction by interacting the institutional variables discussed above with $\log(\text{percentage of regional employment in extraction} + 1)$. We use the log transformation to more closely approximate a normal distribution. In the discussion to follow we refer more simply to “log percentage of employment

in extraction” or “log extraction share.”

2.2 Empirical methodology

To examine the effect on businessman candidacy of institutions which make renegeing on campaign promises costly, we estimate a probit model on the pooled sample of all gubernatorial elections, where the probability of a businessman candidate is

$$\Pr(b_{it} = 1) = \alpha_t + \beta m_r + \gamma p_{rt} + \delta d_{rt} + \eta' X_{it} + \varepsilon_{it}. \quad (2)$$

where i indexes gubernatorial elections, r indexes regions, and t indexes years; b_{it} denotes one of the three dummy variables for presence of a businessman candidate in the race; m_r is either media freedom or government transparency; p_{rt} is strength of parties; d_{rt} is log extraction share; and X_{irt} is a vector of control variables described below. Our hypothesis is that businessman candidates are less likely in the presence of institutions which make renegeing on campaign promises costly, i.e., that $\beta < 0$ and $\gamma < 0$. We correct standard errors to allow for clustering of error terms (ε_{it}) within regions.

To test our hypothesis that businessmen are crowded out by professional politicians when institutions which make renegeing on campaign promises costly are weak and returns from policy influence are high, we study the differential effect of the log percentage of employment in extraction in regions with strong and weak political institutions by estimating two probit regression models:

$$\Pr(b_{it} = 1) = \alpha_t + \beta m_r + \gamma p_{rt} + \delta d_{rt} + \zeta m_r d_{rt} + \eta' X_{it} + \varepsilon_{it}; \quad (3)$$

$$\Pr(b_{it} = 1) = \alpha_t + \beta m_r + \gamma p_{rt} + \delta d_{rt} + \zeta p_{rt} d_{rt} + \eta' X_{it} + \varepsilon_{it}. \quad (4)$$

Our prediction is that $\zeta > 0$ in both of these equations. As with the previous model, we correct standard errors to allow for clustering of error terms within regions.

In all empirical models we control for regional and election characteristics which may be correlated with both the likelihood of businessman candidacy and our measures of institutions and rents from holding office. We include dummy variables for two regional designations: republic status (21 regions) and autonomous okrug status (11 regions). Republic status implies the presence of a titular ethnic group and typically greater autonomy from the federal center, whereas autonomous okrug status implies that the region is geographically and – to some extent – administratively a part of another region. In both cases the institutional environment may differ from that in other regions in a way which influences the likelihood of businessman candidacy. In addition, we control for (log) population and (log) regional income per capita, as both formal compensation and “ego” rents from holding office (v in the model) may be larger in populous and wealthy regions. We include a dummy variable equal to one if the incumbent governor ran for reelection, as the advantages of incumbency in an electoral contest may influence the incentives for a businessman to participate in the race. We also include the number of candidates in the election as a covariate, as our dependent variable is the probability that at least one candidate is a businessman candidate (with a certain percentage of the vote), which we do not want to conflate with the number of “draws” from the pool of potential candidates. Finally, we include year dummies as covariates to prevent spurious correlation related to variation over time in both the average number of businessman candidates and the average level of some of our independent variables.

In the next section we report our main results. Following that we discuss robustness and possible endogeneity problems.

2.3 Empirical Results

Our first empirical result is that variation in the regional institutional environment has explanatory power only for the presence of “serious” businessman candidates, i.e. only for businessman candidates with a nontrivial chance of winning. There is virtually no relationship between our measures of media freedom, government transparency, and party strength

on the one hand, and the probability that there is *any* businessman candidate in the race on the other. (For conciseness, we do not report estimation results.) Henceforth we focus on explaining variation in the presence of “serious” businessman candidates, defined as those who received at least five or ten percent of all votes cast.

Figure 1 illustrates our baseline empirical findings, showing adjusted partial residual plots for linear probability models analogous to the probit models in Equations 2 and 3. Consistent with the first hypothesis, businessman candidates are less likely in regions with relatively free media, controlling for other characteristics of regions and elections which may be correlated with both businessman candidacy and media freedom. As it may be more costly to renege on campaign promises when media can report on the actions of elected officials, this suggests that businessman candidacy is negatively correlated with institutions which help to make campaign promises binding. Consistent with the second hypothesis, the interaction of media freedom and log extraction share is positive, again after controlling for other characteristics of regions and elections. As the estimated coefficient on log extraction share is negative (not illustrated here, but reported below for the probit models), this indicates that crowding-out effects are stronger when the media are relatively unfree than when they are relatively free.

To more formally test these hypotheses, we turn to probit estimation. Table 2 presents results from these models, reporting estimated marginal effects on the probability of a businessman candidate with at least five percent and ten percent of the vote. The first four columns report results from the probit model which tests the direct effects of our main explanatory variables (Equation 2 above). We find a significant negative association between regional institutions which make it more difficult to renege on campaign promises and the probability of having a serious businessman candidate in the gubernatorial race. The estimated effects of media freedom, government transparency, and strength of parties all have the predicted negative sign, and all are statistically significant but for the estimated effect of strength of parties on the probability of a businessman candidate with at least five percent of the vote.

The economic significance of these results is as follows. A one standard deviation increase in the media freedom index leads to a fourteen and fifteen percentage point fall in the probability of having a businessman candidate with five and ten percent of the vote, respectively. Government transparency has a somewhat weaker effect: a one standard deviation increase in the government transparency index leads roughly to an eight percentage point fall in the probability of a businessman candidate in the race with either five percent or ten percent of the vote. Finally, an increase of ten percentage points in the share of SMD parliamentary candidates nominated by political parties (our measure of party strength) results in a 5.6 percentage point fall in the probability of a businessman candidate with ten percent of the vote.

The first four columns of Table 2 also show that the average effect of log extraction share (our measure of endogenous rents from holding political office) on the probability of businessman candidates is consistently negative, though insignificant in those models with a 5% “seriousness threshold” for businessman candidates and only marginally significant in those models with a 10% threshold. The consistently negative average effect of log percentage of employment in extraction is suggestive of the overall weakness of democratic institutions in Russia’s regions, as the model predicts crowding-out effects only in the absence of institutions which make reneging on campaign promises costly. To examine the impact of regional variation in these institutions, we estimate the differential effect of resource abundance on businessman candidacy in regions with strong and weak democratic institutions by interacting log extraction share with our institutional measures (Equations 3 and 4 above). We report estimation results from these models in Columns 5-10 of Table 2. Consistent with the model’s prediction, the estimated effect of the interaction between media freedom and government transparency on the one hand, and log percentage of employment in extraction on the other, is positive and statistically significant (Columns 5-8). Only in regions with relatively low media freedom and government transparency (where businessman candidates generally are more frequent) does resource abundance lead to a decrease in the probability

of serious businessman candidates. The estimated effect of the interaction of log extraction share and party strength also has the predicted negative sign, but is imprecisely estimated (Columns 9 and 10).

To illustrate the size of these crowding-out effects, we compare the effect of resource extraction on the probability of businessman candidacy in regions with strong and weak institutions. In regions with media freedom one half standard deviation below the mean, a one standard deviation increase in log extraction share leads to an eleven percentage point decrease in the probability of a businessman candidate with ten percent of the vote. In contrast, in regions with media freedom one half standard deviation above the mean, an increase of one standard deviation in log extraction share leads to an 4.4 percentage point increase in the probability of a businessman candidate with ten percent of the vote. The interaction of government transparency and resource abundance is similar. For regions with government transparency one half standard deviation below and above the mean, a one standard deviation increase in log extraction share results in a decrease of thirteen and 0.8 percentage points, respectively, in the probability of a businessman candidate with ten percent of the vote.

Overall, the evidence is consistent with the two main predictions of the model. First, regions with freer media and more transparent government – and hence stronger commitment to campaign promises – witness significantly fewer businessman candidates, with some evidence of similar effects for party strength. Second, businessman candidates are crowded out by professional politicians when the endogenous rents from holding office (as measured by the resource intensity of the local economy) are high, but only when institutions which make renegeing on campaign promises costly are weak.

2.4 Robustness

We performed a number of checks to assure that our results are robust. First, we confirmed that our findings are not driven by any outlier regions or elections, searching for influential

observations and finding none. Second, we verified that exclusion of any covariate or group of covariates did not yield results substantively different from those reported above. In most cases, the particular set of covariates affects neither the qualitative results nor their statistical significance. The coefficient on the cross-term of media freedom and extraction occasionally loses statistical significance with the exclusion of some covariates, but the sign and magnitude remain unchanged and t-statistics never fall below unity. Third, the results are robust to model selection. In addition to the probit model reported in the paper, we estimated linear probability and logit models and allowed for regional random effects. The baseline results were unaffected.

A crucial assumption necessary for the validity of our empirical approach is the exogeneity of our explanatory variables. There are potentially two problems with this assumption. First, there could be reverse causality between our dependent variables and some of the regressors. In particular, one might argue that media freedom and government transparency could be affected by the identity of the office holder, which in turn may be correlated with businessman candidacy. Yet as the discussion of the lobbying process makes clear, in equilibrium any office holder should prefer less to more media freedom and government transparency. For both businessmen and professional politicians, the opportunity to benefit from control of the policy process is greater in the absence of institutions which make reneging on campaign promises costly. Nonetheless, we repeated our empirical exercise on the subsample of 119 elections that took place in 2000 and later, which is the time period after our measures of media freedom and government transparency were constructed. The results are robust: the signs and magnitude of estimated effects are very close to those in the full sample. Some effects of interest do lose significance, but this may be attributed to a decrease in the number of observations by approximately one half from the baseline regressions. Similarly, one could argue that both the number of candidates and incumbent participation could be affected by participation of businessmen in the election. Intuitively, the participation decision of any politician or businessman depends in equilibrium on who else enters. There are no good

instruments for these regressors, but we did verify that our basic results are robust to the exclusion of these variables from the list of covariates.

Second, endogeneity could arise from unobserved regional variation. This is a particular concern because our empirical results are derived from cross-sectional analysis and Russia's regions are very diverse. We are unable to control for this variation with fixed effects, as two of our three institutional measures (media freedom and government transparency) are available only as a cross section, and our measure of resource abundance – while available as a panel – varies little over time. To partially address this problem, we control for the regional characteristics discussed above: republic and autonomous okrug status, population, and income per capita. We also tried adding a number of other regional characteristics as covariates, including population density, urban population share, average temperature, latitude, longitude, and distance from Moscow. Our results were unaffected. Finally, and perhaps more importantly, we included a control for the political preferences of electorate. One might argue that businessman candidates would be less likely to win – and thus less likely to run – in regions with communist electorates. At the same time, such regions might have weaker democratic institutions. To assure that our results are not driven by any such spurious correlation, we included the percentage vote received by Genadii Zyuganov - the leader of Russia's Communist Party - in the 1996 presidential election as an additional control. In fact, the probability of a serious businessman candidate is uncorrelated with this variable after controlling for other regional and election characteristics, and our basic results are unaffected. Overall, our results prove robust.

3 Conclusion

Why do businessmen run for office themselves despite the large opportunity costs of doing so? In what institutional environments is this behavior most common? We have argued that businessmen may choose to run for office only when two conditions hold. First, institutions

which make renegeing on campaign promises costly must be weak. When this is the case, office holders have monopoly power which may be used to extract rents, and businessmen may run to capture those rents. Second, however, the returns to policy influence must not be too large, as otherwise the endogenous rents from holding office draw professional politicians into the race, crowding out businessmen candidates. These theoretical results find empirical support in an analysis of Russian gubernatorial elections. Businessman candidates are less likely in regions with high media freedom and government transparency, institutions which make renegeing on campaign promises costly. Further, crowding-out effects are evident in regions with large returns to policy influence, as proxied by regional resource abundance, but only when institutions which keep office holders accountable are weak.

The major contribution of this paper is thus to show the impact of institutions on the political participation decisions of businessmen. An obvious extension would be to consider the possibility that the political participation of other interests may be similarly affected. Further empirical investigation might take advantage of intertemporal as well as cross-sectional variation in institutions. If the arguments in this paper hold generally, we should expect to find fewer professional politicians, and more “special-interest candidates,” when and where institutions which hold elected officials to campaign promises are weak.

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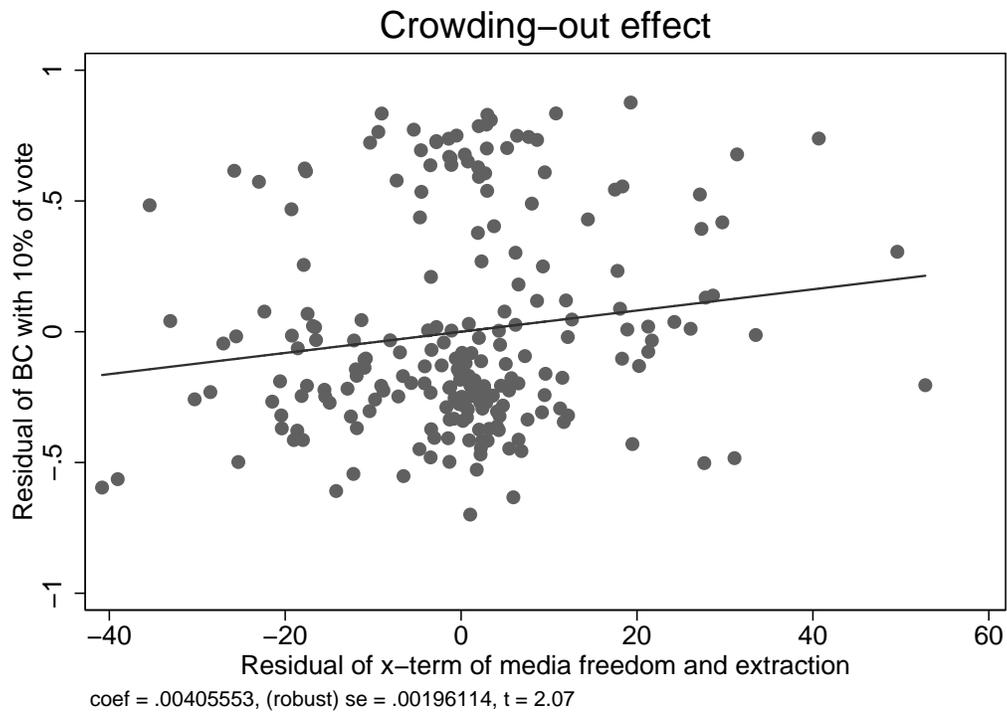
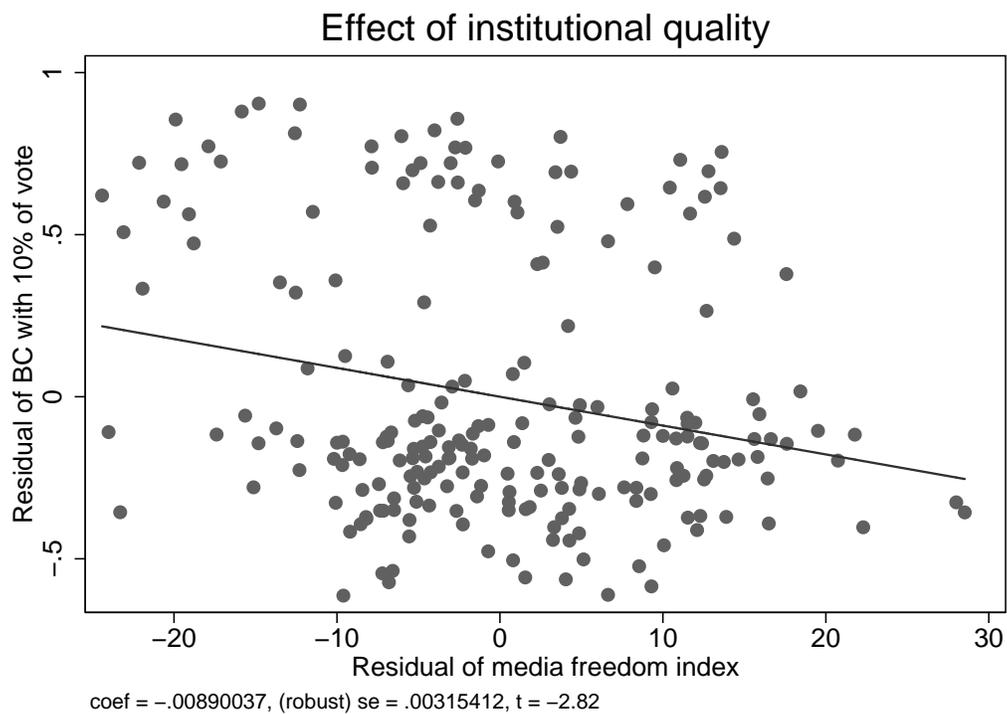


Figure 1: Adjusted partial residual plots illustrating key results.

Table 1: Variables Sources and Summary Statistics

Panel A: Businessman Candidates (collected by the authors for each regional election)					
Variable	Frequency				
Businessman candidate	Dummy variable = 1 for 151 out of 247 elections (145 out of 231 elections*)				
Businessman candidate with at least 5% of vote	Dummy variable = 1 for 104 out of 247 elections (102 out of 231 elections*)				
Businessman candidate with at least 10% of vote	Dummy variable = 1 for 66 out of 247 elections (65 out of 231 elections*)				
*Subsample for which regional data are available					
Panel B: Sources and Definitions for Independent Variables					
Variable	Source and/or definition				
Media freedom index	Expert rating, published by Public Expertise, www.freepress.ru				
Government transparency index	Expert rating, published by Media Soyuz, www.mediasoyuz.ru				
Strength of parties	Proportion of single member district candidates from region in parliamentary elections nominated by major parties, constructed by the authors using data from the Russian Central Elections Commission				
Percentage of employment in extraction industries	Yearbook <i>Russia's Regions</i> , Rosstat				
Republic status	Dummy variable = 1 if region has republic status				
Autonomous okrug (AO) status	Dummy variable = 1 if region has autonomous okrug status				
Population	Yearbook <i>Russia's Regions</i> , Rosstat				
Income per capita	Yearbook <i>Russia's Regions</i> , Rosstat				
Incumbent participation	Russian Central Elections Commission				
Number of candidates	Russian Central Elections Commission				
Panel C: Summary Statistics					
Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Media freedom index	219	37.274	13.864	0	75
Government transparency index	229	3.667	1.984	0.03	8.75
Strength of parties	231	0.236	0.128	0	1
Log(percentage of employment in extraction industries + 1)	231	2.173	1.185	0	4.277
Dummy for republic status	231	0.229	0.421	0	1
Dummy for AO status	231	0.078	0.269	0	1
Log population	231	7.045	1.106	2.890	9.248
Log income per capita	231	2.612	-1.333	2.402	5.499
Dummy for incumbent participation	231	0.892	0.311	0	1
Number of candidates	231	5.935	2.943	1	16

Table 2: Determinants of Businessman Candidacy

	1		2		3		4		5		6		7		8		9		10		
	BC with 5%		BC with 10%		BC with 5%		BC with 10%		BC with 5%		BC with 10%		BC with 5%		BC with 10%		BC with 5%		BC with 10%		
Media freedom	-0.010 [0.004]***	-0.011 [0.004]***																			
Government transparency					-0.041 [0.023]*	-0.044 [0.020]**															
Strength of parties	-0.212 [0.334]	-0.557 [0.280]**	-0.132 [0.326]	-0.447 [0.271]*	-0.232 [0.342]	-0.613 [0.286]**															
Log extraction share	-0.012 [0.035]	-0.056 [0.029]*	-0.017 [0.034]	-0.057 [0.030]*	-0.154 [0.086]*	-0.214 [0.077]**															
X-term: Media Freedom × Log extraction share					0.004 [0.002]*	0.004 [0.002]**															
X-term: Government transparency × Log extraction share																					
X-term: Strength of Parties × Log extraction share																					
Republic																					
Autonomous okrug	-0.122 [0.108]	-0.082 [0.089]	-0.035 [0.106]	0.025 [0.111]	-0.117 [0.109]	-0.072 [0.089]															
Log population	-0.120 [0.242]	0.230 [0.291]	-0.059 [0.234]	0.389 [0.240]	-0.046 [0.242]	0.363 [0.257]															
Log income per capita	-0.064 [0.049]	0.016 [0.047]	-0.059 [0.049]	0.007 [0.046]	-0.061 [0.048]	0.019 [0.047]															
Incumbent participation	-0.049 [0.074]	-0.025 [0.050]	-0.033 [0.058]	-0.001 [0.040]	-0.033 [0.076]	-0.005 [0.055]															
Number of candidates	-0.079 [0.126]	-0.026 [0.107]	-0.047 [0.121]	-0.006 [0.104]	-0.096 [0.131]	-0.042 [0.116]															
Year dummies	0.040 [0.014]***	0.049 [0.012]***	0.036 [0.013]***	0.045 [0.012]***	0.042 [0.014]***	0.052 [0.012]***															
Observations	219	219	229	229	219	219															
Pseudo R-squared	0.14	0.20	0.12	0.17	0.15	0.21															
Number of clusters(regions)	81	81	86	86	81	81															

Notes: Probit model. Marginal effects reported. Standard errors corrected for clustering at regional level in brackets. Significance levels: *** = .01, ** = .05, * = .10. "Log extraction share" is log(percentage of employment in extraction industries + 1).