The Loyalty-Competence Trade-Off in Dictatorships and Outside Options for Subordinates

Alexei V. Zakharov, National Research University, Higher School of Economics

Why do dictators sometimes prefer incompetent subordinates? I explore this question using a formal model. In each period of a dynamic game, a subordinate chooses his level of loyalty, which determines the dictator's survival probability. He also performs another task—such as carrying out economic policy. The dictator's decision each period is whether to hire a subordinate who is competent or incompetent at that task. An unemployed subordinate may be hired in the future, when the current dictator is removed from office. I show that less competent subordinates will be more loyal. As a result, dictators who value performance at economic tasks will hire more competent subordinates and will have shorter tenures. Incompetent subordinates will be hired more often if the dictators discount future payoffs less heavily or if the payoff from competence is smaller. The results show that, consistent with observation, longer tenures will not be associated with better economic performance.

Dictators do not rule alone. Each dictator must rely on a team of lieutenants to accomplish a number of tasks both to ensure his survival in office and to promote the efficient functioning of the government. Such tasks may include drafting and carrying out economic policy, collecting taxes, punishing dissent, or brainwashing the public.

Lieutenants differ in their ability, but capable candidates for top administrative positions are often passed over in favor of incompetent loyalists, cronies, and leaders' relatives. Such loyalty-based promotions are a pervasive feature of authoritarian regimes (Egorov and Sonin 2011).[1] In personalist dictatorships in particular competence may be an undesirable trait to such an extent that state capacity—and sometimes even the leader's own political survival—is seriously undermined by subordinates (often, the leader's own relatives) who are too unfit for their positions (Bueno de Mesquita and Smith 2011; Chehabi and Linz 1998; Ezrow and Frantz 2011).

In this work, the following argument is made. A dictator's political survival depends on the effort of his subordinate, which comes at a cost[2] and is noncontractible. Subordinates differ in their ability at tasks that are not related to prolonging their patron's term in office (such as public good provision), and dictators also differ in how they value the performance of their subordinates at these tasks. If a dictator is overthrown, his subordinate loses his position but may be recruited by the dictator's successor or by some other dictator in the future.

The main result of my analysis is that there will be a loyalty-competence trade-off. Truly capable lieutenants are few and far between, and a gifted administrator can expect a demand for his services from the dictator's potential successor. This, in turn, will make him want to exert less effort to keep his current patron in power—compared to an incompetent crony whose fortunes are tied to those of the dictator.

Alexei V. Zakharov (al.v.zakharov@gmail.com) is an assistant professor at National Research University, Higher School of Economics, Moscow, Russia.
Data and supporting materials necessary to reproduce the numerical results in the paper are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). An online appendix with supplementary material is available at http://dx.doi.org/10.1086/684365.

1. The loyalty-competence trade-offs is also faced by democratically elected leaders (Buisseret and Prato 2013; Edwards 2001) and owners of private firms (Burkart, Panunzi, and Shleifer 2003; Glazer 2002; Prendergast and Topel 1996).

2. There are several reasons, beside the undesirability of effort itself, why working to increase the dictator's probability of survival can be costly. First, a subordinate's duties may involve the use of violence against regime's opposition or performing other tasks that bear the risk of retribution once the current leader is out of power (Kim and Sikkink 2010; Olsen, Payne, and Reiter 2010). Second, a high ranking government executive may be tempted to "go native"—try to build relationships with their bureaucratic environment and interest groups, at the expense of his superior's interests (Wilson 1989). Third, remaining loyal implies foregoing opportunities to participate in plots to overthrow the country's leadership. Finally, excessive corruption by lieutenants can result in insurgency and regime overthrow (Chayes 2015).

The Journal of Politics, volume 78, number 2. Published online January 21, 2016. http://dx.doi.org/10.1086/684365
 0022-3816/2016/7802-0010$10.00

I assume that dictators constantly face a threat of exit. According to Boix and Svolik (2013), over 41% of all dictators who left power during 1945–2001 did so as a result of coups, revolts, and foreign interventions; this figure does not include exits due to civil wars or assassinations.[3] The threat of an irregular leader exit is known to depend on a number of country-specific factors that are exogenous to my model.

It follows that dictator tenures will be negatively correlated with the quality of their subordinates. The model assumes that the value that a dictator puts on the ability of his subordinates varies—depending on institutional constraints, economic circumstances, and perhaps personal qualities of the leader.[4] Low-ability subordinates will spend greater effort to keep dictators in power, resulting in longer tenures.

This prediction is contrary to one that follows from a well-known argument (such as McGuire and Olson 1996) that a dictator who expects to remain in power for a long period of time should act as a "stationary bandit" and be interested in improving economic performance. My model predicts that a competent subordinate is more likely to be hired if the leader faces a high exogenous threat of removal—such as when a country has a prior history of coups (Ezrow and Franz 2011; Powell 2012), in military regimes (Powell 2012), if the neighboring countries are more democratic (Escriba-Folch 2013), if the country suffers from an ongoing interstate conflict or hostility from a foreign power (Thyne 2010), if the country is ethnically heterogeneous (Collier and Hoeffer 2007; Kim 2014; Svolik 2013), or the country's geography is favorable to insurgency (Fearon and Laitin 2003). We should also observe a higher likelihood that a competent subordinate is hired if the leader is unlikely to prevent an opposition victory at the next scheduled elections.[5]

If the payoffs from competence are higher—such as during interstate conflicts or when the prices of main export commodities are lower—we should expect competent subordinates to be hired more often. However, if the valuation of competence increases for future leaders but not for the incumbent, we may expect a competent subordinate to be purged and replaced with someone who is incompetent but more loyal.

A number of recent theoretical works attempted to model such decisions as the dictator's choice of subordinate's competence or subordinate's choice of loyalty. However, none of them capture the key logic of my work—that capable subordinates are less loyal because they have higher outside options, and that their outside options are high because a capable subordinate is more likely to be hired than an incapable one.

In Glazer (2002), the employer faces an optimization problem when choosing subordinate quality. A high-quality subordinate can help increase the firm's profits, but he is also more capable at rent-seeking within the firm—such as stealing from the owner, claiming credit for the firm's achievements, or (in the political framework) acquiring too much political power and possibly unseating his superior.[6] This setting, however, is static and assumes that the subordinate takes no action, while in my context loyalty arises as a result of the forward-looking behavior of subordinates.

In the Egorov and Sonin (2011) model, competent subordinates were avoided by dictators since they were better

3. In particular, random output contractions driven by exogenous shocks such as variations in rainfall and temperature have been shown to cause coups (Kim 2014), civil conflict (Burke et al. 2009; Miguel, Satyanath, and Sergenti 2004), and democratic regime change (Brückner and Ciccone 2011; Burke and Leigh 2010). Transitory negative shocks to the economy act by reducing opportunity costs of participation in mass political action, and can increase grievances.

4. The fact that dictators have varying preferences toward achieving economic performance versus staying in power (and hence a varying demand for competent officials) is implied by the wide disparity of economic outcomes produced by autocratic regimes (Weede 1996); this is especially true regarding repressive regimes. For every Chiang Kai-shek, who presided over a period of five-fold per capita GDP growth (Maddison 2006) there is more than one Mobutu Sese Seko who boasted that he "never built one road" during his 31 years in office (Robinson 1999). A number of factors and institutional constraints were implicated in affecting the autocrat's choice between economic development and economic ruin. Wintrobe (1998) distinguishes between "tinpot" dictators, who maximize personal wealth and consumption, and "totalitarian" types interested in exercising more pervasive control over economic, social and intellectual life of his subjects; the sorting of dictators into types depends on economic constraints (e.g., how well does money convert into the loyalty of the subjects). Other factors that may contribute to the dictator's choice are technological constraints on building infrastructure (Guttman and Reuveny 2014), existing stock of capital in the economy (Overland, Simons, and Spagat 2005), the relationship between public utility and the probability of regime survival (Grossman and Noh 1994), prices of main export goods (Egorov, Guriev, and Sonin 2009; McBride 2005; Ploeg 2011), and leader's personality and education (Jones and Olken [2005]; disputed by Easterly and Pennings [2014] and also Gandhi [2008] and Besley, Montalvo, and Reynal-Querol [2011]).

5. Most dictatorial regimes stage regular but unfree and unfair elections (Simpser 2013).

6. Similarly, in Matozzi and Merlo (2010), politicians selected by parties engage in intraparty contests that are assumed to be beneficial to the parties; winners of these contests compete in the election. It thus might not be the best strategy for a party to recruit a star politician because that may depress competition for nomination within the party (although the winner of that contest will have a greater chance of winning the election). A different contest setting is analyzed by Kräkel (2012) who looks at the promotion process as a multistage contests between candidates. Under some assumptions, candidates with lower outside options will put forward more effort and have higher winning probabilities.

equipped to sense when the dictator is weak and hence had lower costs of betrayal. I show that this assumption is not necessary, and that loyalty-competence trade-off can occur even when both competent and incompetent subordinates face the same costs of keeping the dictator in power. My model offers a more parsimonious explanation to the phenomenon: the trade-off is driven by the higher outside options of competent subordinates that, in turn, arise endogenously in the model.

Debs (2006) looks at a dynamic game where a dictator faces a possibility of revolt from the population that would replace him with his subordinate. It may be in the dictator's interest to replace a subordinate who was too successful in implementing economic policy, in case the public realizes that this subordinate is of a higher quality than the dictator. However, a subordinate cannot serve several different rulers, so one cannot explain a decision to be disloyal while expecting to be hired by the dictator's successor.

Wagner (2006, 2011) assumes both employer and the subordinate to be infinitely lived, and every period the subordinate may have an opportunity to partake in an activity that is beneficial to him and detrimental to the employer. The actions of the worker, however, have no consequence for the survival of the manager; more importantly, the outside employment opportunities are not affected by the strategies of any of the players. Subordinates of two different types—cronies and experts—are chosen in Zudenkova (2015), but the two-stage game ends after the subordinates choose their effort levels at the two tasks, and the politician is either reelected (based on the amount of public goods produced) or not; unlike in my model, the subordinates of both types receive identical payoffs if the politician is reelected. In Lagerlöf (2012), subordinates are heterogeneous both in their competence and in their distance to the ruler. When the ruler is replaced, the likelihood that subordinates are purged decreases in their competence, leading to path dependency; however, that setting does not address the issue of why a particular subordinate chooses to become loyal or not.

THE MODEL

At every stage of an infinitely repeated game there are the following players: a dictator and several infinitely-lived subordinates. Of the subordinates, some are competent, denoted by H, and some are incompetent, denoted by L. The number of subordinates of each type is N_H and N_L. The state of the game is characterized by two variables: the type of the dictator $r \in [1, R]$ and the identity of the subordinate employed by the dictator. At each stage of the game the following sequence of events takes place:

1. The subordinate who is employed by the dictator chooses his "loyalty effort" $p \in [0, 1]$. All other subordinates are unemployed and take no action.
2. The dictator survives into the next period with probability p and is overthrown with probability $1 - p$. If a dictator is overthrown, he leaves the game permanently.[7]
3. If the dictator is overthrown, nature determines the type of the new dictator r, drawing it from a uniform distribution on $[1, R]$.
4. If there was a change of dictator this period, the new dictator chooses the type of subordinate to recruit. He either chooses a competent subordinate at random from the pool of N_H candidates or chooses an incompetent subordinate in a similar manner. All candidates of the chosen type have the same probability of being hired by a dictator. If the dictator was not overthrown, he takes no action and retains his current subordinate into the next period.

At the beginning of every period, the dictator receives a payoff of 1 if his subordinate is incompetent and r if the subordinate is competent. Denote by $\delta_d \in [0, 1)$ the discount factor of a dictator, which reflects the exogenous, country-specific risks faced by the dictator. This value will be smaller if the dictator faces a high risk of removal from office—whether irregular (such as through coup, revolution, or foreign intervention) or regular (such as by not being able to prevent an opposition win through election). Each subordinate receives a payoff of 1 every period that he is employed by a dictator and a payoff of 0 every period that he is unemployed.[8] An employed incompetent subordinate who chooses loyalty effort p_L incurs cost $c(p_L)$ due to his efforts to prolong the dictator's term in office. Let $c'(0) = 0, c(0) = 0, c(1) \leq 1, c' > 0, c'' > 0$, and $c'(1) = \infty$. An employed competent subordinate with loyalty effort p_H incurs a cost of $\alpha c(p_H)$, where $0 < \alpha \leq 1$ is a parameter that reflects the relative efficiency of competent subordinates at ensuring leader survival.[9] Let $\delta \in [0, 1)$ denote the discount factor of a subordinate.

7. Dragu and Polborn (2013) also assume that the survival of a political leader depends on a noncontractible, costly action of his subordinate. However, they study a different phenomenon—whether institutional constraints that punish the subordinate for implementing certain polities can influence the policy that the ruler chooses to implement.

8. One of the ways that an incumbent dictator can commit, as long as he remains in power, a certain sum to reward his supporters is through wasteful "white elephant" projects (see Robinson and Torvik 2005).

9. Given an equal level of effort, a less capable subordinate can produce a lower survival probability because, for example, his actions may result in a higher probability of an economic crisis, which can be a trigger

A "symmetric stationary strategy profile" is a 3-tuple $(d(\cdot),\ p_H,\ p_L)$, where p_H is the loyalty effort of a competent subordinate, p_L—loyalty effort of an incompetent subordinate, and $d(\cdot) : [1,\ R] \to \{H,\ L\}$ is the dictator's choice of subordinate depending on the dictator's type. A "Markov perfect equilibrium" is a symmetric stationary strategy profile that is a subgame-perfect equilibrium of the infinitely repeated game. The definition of a stationary strategy in this work is in fact more restrictive than the standard definition (Myerson 1997). I require each subordinate to choose a strategy that depends only on the state of the game (so all subordinates of a given type will choose the same loyalty effort, regardless of dictator type). Given an infinite number of dictator players, I also assume that all dictators of a given type play identical strategies. However, the equilibrium still conforms to the standard definition, as the discounted payoff of each player is maximized by his strategy at any stage of the game and in every state.

The following result can be established (all proofs are in the appendix, available online).

Proposition 1. For any $\alpha \in (0,\ 1)$, there exists $N_{H1} > 1$ such that for all $N_H < N_{H1}$, in any Markov perfect equilibrium we have $0 < p_H < p_L < 1$. In such an equilibrium, all dictators with $r \in [1,\ \bar{r})$ choose incompetent subordinates, and all dictators with $r \in [\bar{r},\ R]$ choose competent subordinates, where

$$\bar{r} = \frac{1 - \delta_d p_H}{1 - \delta_d p_L} \tag{1}$$

lies in $(1,\ R)$. The probability that a competent subordinate is chosen is given by

$$\pi = 1 - \frac{\delta_d (p_L - p_H)}{(R-1)(1 - \delta_d p_L)}. \tag{2}$$

If $\alpha = 1$, then the above statements hold in any Markov perfect equilibrium, for any $N_H \geq 1$.

If both types of subordinates are equally efficient at ensuring dictator survival, then in equilibrium there will be a loyalty-competence trade-off. Competent subordinates will exert less loyalty effort than incompetent subordinates, and those dictators who value the performance of subordinates relatively low will choose incompetent subordinates. The dictators who value performance relatively high choose competent ones. This is true because, if competent subordinates produce higher survival probabilities, every dictator type will prefer a competent subordinate. In that case an incompetent subordinate can only be hired if some dictator deviates from his equilibrium strategy and will never be hired again once the current dictator loses power; that will cause him to choose a high survival probability. On the contrary, a competent subordinate will be rehired with probability $1/N_H$ and will exert a smaller level of effort in equilibrium. As a result, those dictators who value the performance of their subordinates will be short-lived compared to their counterparts who are willing to hire incompetents due to their greater loyalty.

A similar argument applies if the competent subordinates are also more efficient at prolonging the dictator's tenure, as long as there are relatively few competent subordinates to choose from. In particular, if there is only one competent subordinate, then he will necessarily exert a smaller amount of effort than an incompetent subordinate. If he knows he will always remain employed, then he will not be induced to show any effort at all—even when α is low, and he is able to keep his employer in power at a small cost. When the Talleyrands of this world are few and far in between, they will not be very loyal, even if it costs them little; as a result, leaders will have to trade competence off against loyalty.

If, on the other hand, the pool of potential competent subordinates is large—so for any subordinate the probability of being hired by the dictator's successor is small—then competent subordinates may, for $\alpha < 1$, produce a higher level of p than their incompetent counterparts, and the loyalty-competence trade-off vanishes: all dictator types will prefer to hire competent subordinates.[10] This result is summarized as follows:

Proposition 2. Let $(p_H,\ p_L,\ \pi)$ be a Markov perfect equilibrium. Then, as N_H increases, p_H converges to $\bar{p}_\alpha$ and p_L converges to $\bar{p}$, with $\bar{p}_\alpha$ decreasing in α, and $\bar{p}_\alpha = \bar{p}$ for $\alpha = 1$. If $\alpha < 1$, then there exists N_{H2} such that $\pi = 1$ for $N_H > N_{H2}$. If $\alpha = 1$, then π converges to 1 as N_H increases.

If the number of potential competent subordinates increases, with the number of incompetent subordinates remaining fixed, the probability that each competent subor-

for both violent authoritarian leader turnover and democratic reversal (Bruckner and Ciccone 2011; Gasiorowski 1995).

10. The same can happen if the assumption $c'(1)$ is relaxed. If $N_H > 1$ and this value is sufficiently small, a competent subordinate with $\alpha < 1$ may have a corner solution at $p_H = 1$, which will result in all dictator types hiring competent subordinates. However, if there is only one competent subordinate, then in any equilibrium the competent subordinate will still produce a smaller survival probability p_H than the survival probability produced p_L by the incompetent subordinates. Otherwise, all dictators will prefer to hire the competent subordinate, who will be induced to choose zero effort, regardless of $c'(1)$.

dinate is hired by the dictator's successor decreases. When this number becomes very large, the probability of being rehired becomes very small for both types of subordinates. If $\alpha < 1$ and the competent dictators are more efficient at ensuring dictator survival, then for a large enough N_H we will have eventually have $p_H > p_L$, and the loyalty-competence trade-off will disappear. Figure 1 illustrates the comparative statics with respect to N_H when $\alpha = 1$ and $\alpha = 0.8$.

I now proceed to analyze the case when competent subordinates are scarce, but incompetent ones are easy to find. In particular, I assume that there is only one competent subordinate, and an infinite number of incompetents. The following statement can be made.

Proposition 3. Suppose that $N_H = 1$ and $N_L = \infty$. Then a Markov perfect equilibrium exists, and in equilibrium we have $p_L > p_H$. Moreover, equilibrium will continuously vary with α, δ_d, and R as follows:

i. p_H will increase in δ_d and will decrease in R and α;
ii. p_L will not change with δ_d, R, and α; and
iii. π will increase in α and R and will decrease in δ_d.

As the competent subordinate becomes more efficient at ensuring leader survival, the likelihood that he will be hired by the dictator's successor will increase as well. The effort of an incompetent subordinate does not depend on the discount rate of dictators, or on how efficient the competent subordinate is at providing income to a dictator and at ensuring dictator survival. This is true because we assume an infinite number of incompetent subordinates. The effort of an incompetent subordinate will be equal to $\bar{p}$ defined in proposition 2, and will not be affected by the hiring strategy of the dictator, as he cannot expect to be hired by the dictator's successor.

The discount rate of the dictators δ_d and the expected momentary payoff that a dictator receives when a competent subordinate is employed (which is linear in R) have countervailing effects on efforts of the competent subordinate, and on the probability that the competent subordinate is hired. If the discount rate of a dictator is low, he prefers to hire the competent subordinate (because he does not worry whether he will survive into the next period); the competent subordinate, as a result, exerts little effort to prolong the dictator's term in office. If the discount rate of the dictators increases, more of them will prefer to hire incompetent subordinates because they offer higher survival probabilities. As a result, the competent subordinate will be induced to show more effort. However, there is still some demand for the services of the competent subordinate. This is because incompetent subordinates do a less-than-perfect job of keeping dictators in power, and some dictator types will prefer to deal with the competent subordinate even if they are very forward looking (see fig. 2A). We will see the opposite effect as R increases. As competence becomes more valuable, more dictators prefer to hire the competent subordinate, while the effort of that subordinate falls (fig. 2B).

A direct consequence of proposition 3 is that the expected valuation of competence by future leaders will affect the current decisions of subordinates, as well as the hiring decision of the present leader. If R increases, the future leaders are more likely to hire the competent subordinate,

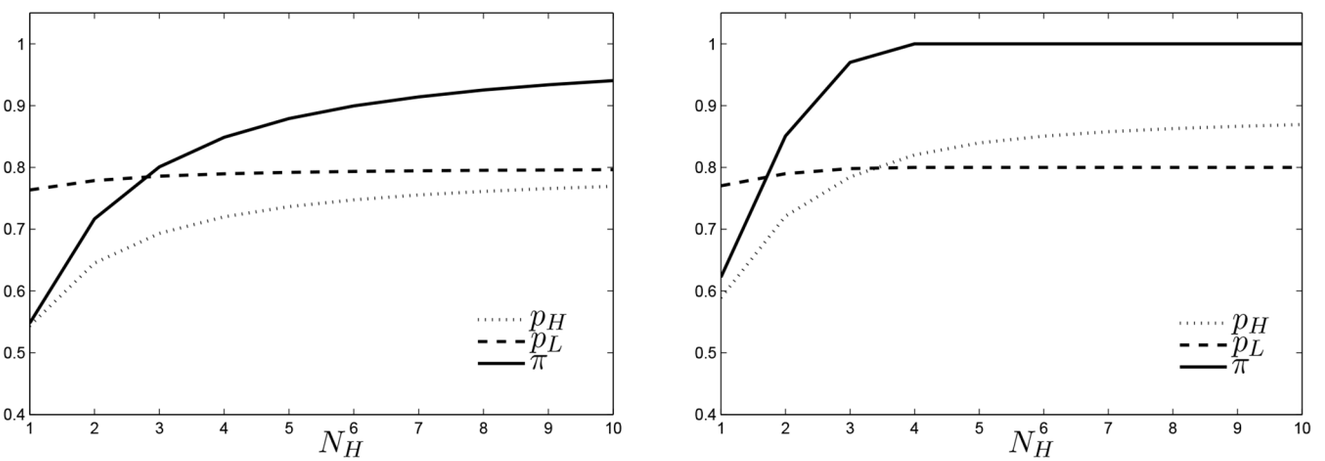

Figure 1. Markov perfect equilibria depending on N_H, with $\delta_d = \delta = 0.8$, $N_L = 5$

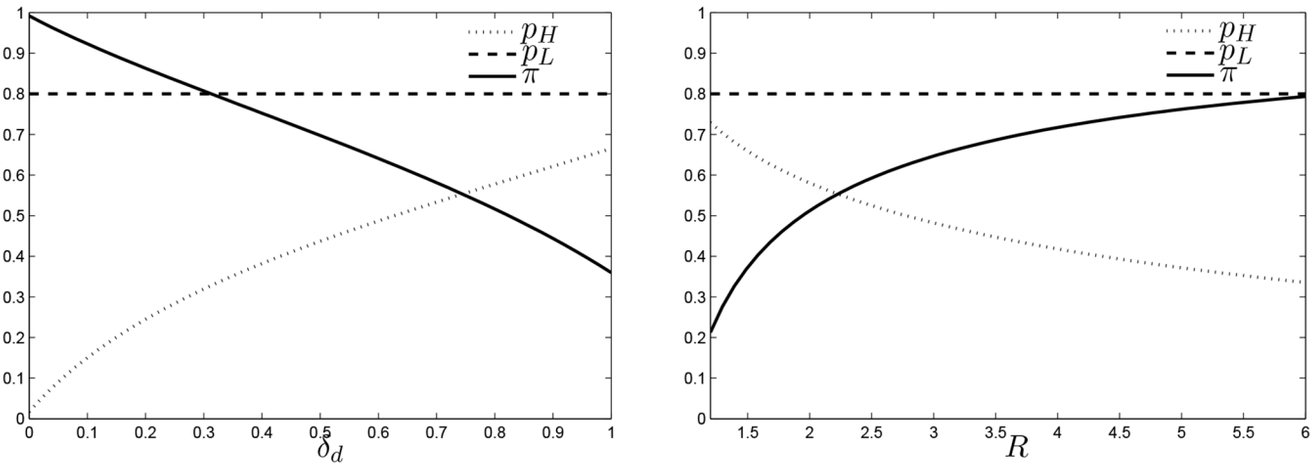

Figure 2. Markov perfect equilibria depending on parameter values $N_H = 1$, $N_L = \infty$

and the current effort of the competent subordinate decreases. If the valuation of competence by the current leader remains unchanged, his expected payoff from hiring a competent subordinate will decrease, while the payoff from hiring an incompetent subordinate will remain unchanged. That may result in dictator purging the competent subordinate and replacing him with an incompetent but more loyal one.

We next see what happens when the subordinates become more forward looking.

Proposition 4. Suppose that $N_H = 1$ and $N_L = \infty$. Then the Markov perfect equilibrium will continuously vary with δ. Both p_H and p_L will increase in δ. There also exist $0 < \delta_1 \leq \delta_2 < 1$ such that π decreases on $\delta \in [0,\ \delta_1]$ and increases on $\delta \in [\delta_2,\ 1)$.

The efforts of both competent and incompetent subordinates will be increasing in δ. As the discount rate of subordinates increases, each of them will be more willing to bear the cost of keeping his superior in power (and himself on the job). The effect of the discount rate on the probability that the competent subordinate is hired depends on the magnitude of the discount rate. If the subordinates are not forward looking, their efforts are small, and dictators prefer to hire the competent subordinate (for $\delta = 0$, all subordinates will choose zero effort, and the dictators will always hire the competent subordinate).

As δ increases, the efforts of the subordinates increase, as well as the difference between the efforts of the incompetent and competent subordinates. As a result, some of the dictators begin to hire incompetent subordinates because they offer a higher probability of survival in office. Finally, as δ approaches unity, the competent subordinate is also forced to exert a high level of effort; this makes him once again attractive to dictators with low r, and the loyalty-competence trade-off disappears (see fig. 3).

The comparative statics derived here cannot be produced with an alternative explanation—namely, that the dictators who value subordinate competence are high quality and more benevolent and that competent subordinates simply refuse to serve nonbenevolent dictators. Under these assumptions, we should also observe a correlation between leader and subordinate qualities. However, if we assume that the outside options of subordinates are fixed and do not depend on the hiring strategies of dictators, then the efforts of a subordinate will no longer be affected by either the distribution of future dictator types, the discount rates of dictators, or the scarcity or abundance of talent among subordinates.

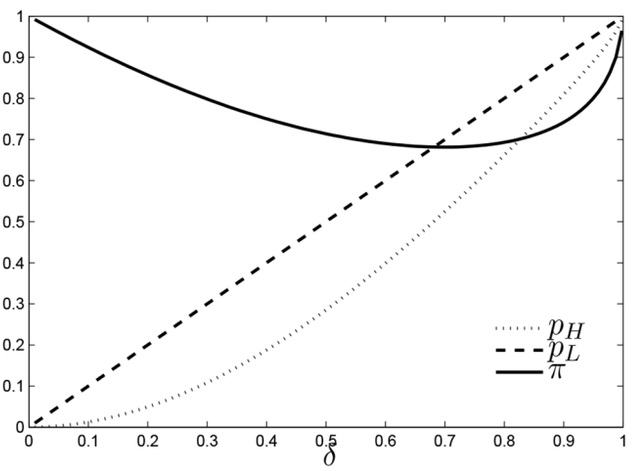

Figure 3. Markov perfect equilibria depending on δ, with $N_H = 1$, $N_L = \infty$, $\delta_d = 0.8$, $R = 2$, $\alpha = 0.6$.

If the number of incompetent subordinates is finite, then their effort will depend on dictator hiring strategies and, correspondingly, on the values of δ_d, R, and α. For $N_H = 1$ and $N_L = 1$, a result similar to proposition 3 can be derived but only for limiting values of the parameters. As R increases, the probability that the competent subordinate is hired increases; this reduces the outside option for the incompetent subordinate, leading him to put forth more effort (see fig. 2). As δ_d increases, the effect is reversed, while the effect of δ on p_L is qualitatively the same as for the case when $N_L = \infty$.

I find that if $N_H = 1$, for any subordinate discount rate $\delta \in (0, 1)$, any dictator discount rate $\delta_d \in (0, 1)$, and any $R > 1$, there will be some dictator types $r \in [1, \bar{r})$ that will choose to hire incompetent subordinates. This is because I assume that, for some dictator types, the momentary payoff r of the dictator from hiring the competent subordinate will be close enough to 1—which is the dictator's momentary payoff if the incompetent subordinate is hired.

Now let the dictator type r be distributed on $[\underline{r}, R]$ with $\underline{r} > 1$. Suppose that the dictators always prefer the competent subordinate. In that case we should have $\pi = 1$, $p_H = 0$, and $p_L = \bar{p}$ as defined in proposition 2. That will be an equilibrium if and only if $\underline{r}$ is large enough. A dictator of type r who hires an incompetent subordinate will get a payoff of

$$\tilde{U}_L = \frac{1}{1 - \delta_d \bar{p}}. \tag{3}$$

If he hires the competent subordinate, his payoff will be

$$\tilde{U}_H = r. \tag{4}$$

Therefore, we will have an equilibrium in which the incompetent subordinate is never hired if and only if

$$\underline{r} \geq \frac{1}{1 - \delta_d \bar{p}}. \tag{5}$$

Moreover, that will be the only equilibrium in the game, because this is a sufficient condition for dictators of all types hiring the competent subordinate.

Inequality (5) will hold under two conditions. First, this is when the discount factor of dictators δ_d is small enough. If the dictators are not sufficiently forward looking, they will hire the competent subordinate, preferring the high momentary payoff he produces to receiving a smaller payoff and surviving. Second, the competent type is always hired if $\bar{p}$—the loyalty effort of a subordinate who expects that he will never be hired if his patron's tenure ends—is low enough. This, in turn, will happen if the discount factor of the subordinates δ is low. It can be shown that $\bar{p}$ increases with δ, while for small δ, $\bar{p}$ is close to 0. Hence, if $\underline{r} > 1$ and the subordinates are sufficiently not forward looking, then all dictator types hire the competent subordinate (fig. 4)

I next explore the possibility that a subordinate incurs a penalty for being connected to the previous dictator. I model this by assuming that the subordinate's per period income is reduced to $w < 1$ if he served the previous leader. Denote by π_1 the probability that the competent subordinate is hired if the subordinate employed by the previous dictator was incompetent, and let π_2 be the probability that the competent subordinate is hired if he served the previous dictator. As $w < 1$, an incompetent subordinate will always show less effort if he was employed by the previous dictator, so for any dictator a dominant strategy is instead to hire a new incompetent subordinate. However, the effort that is put forth by the competent subordinate will be smaller if he was employed by the previous dictator, because the subordinate's per period payoff w will be smaller, but his expected payoff in case the dictator is removed will be the same.

Equilibria for different values of w are shown on figure 5, available in the appendix. If w is small, the effort p_{H2} of the competent subordinate who served the previous dictator is so small that all dictators prefer instead to hire an incompetent subordinate. Correspondingly, the effort p_{H1} of the competent subordinate if he was not employed by the previous leader is high, because he will not be hired once the current dictator is ousted and will remain unemployed for some time. This makes the competent subordinate even more valued if he was not connected to the previous leadership. As the penalty for serving the previous leader decreases, π_2 eventually becomes positive, while both π_1 and p_{H1} decrease as the outside options for the competent subordinate become higher.

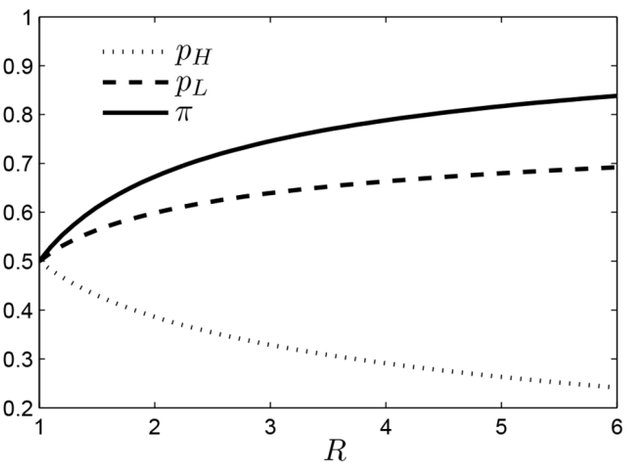

Figure 4. Markov perfect equilibria depending on R, with $\delta_d = \delta = 0.8$, $\alpha = 1$, $N_H = N_L = 1$.

CONCLUSION

Many autocratic regimes are characterized by poor governance and suboptimal selection of officials; creating competent and merit-based bureaucracies contributes to institutional performance (Rauch and Evans 2000) but is politically costly for nondemocratic leaders (Geddes 1994) and conflicts with other goals, including immediate political survival. An autocrat faces a number of threats, such as elite schisms, betrayal, or public unrest (Bueno de Mesquita et al. 2003; Egorov and Sonin 2011; Svolik 2012); dealing with these threats takes effort on behalf of his lieutenants. According to my argument, a low-quality subordinate will be induced to exert greater effort at such tasks because his outside options will be lower. On the other hand, the political future of a highly capable subordinate is not tied to that of his patron; hence, his effort at prolonging the patron's tenure will be lower.

One historic example of a gifted but disloyal lieutenant is Charles Maurice Talleyrand of France, who was famous for both diplomatic prowess and for political longevity and ability to quickly switch sides in politics. He held senior offices (including those of foreign minister, prime minister, and ambassador to the UK) under four different political regimes, repeatedly falling out of favor and shifting allegiances.

Talleyrand started his administrative career during the ancien regime and became the minister of foreign affairs in 1797 under the French Directory, after a period of exile. In 1799 he conspired with Napoleon in the coup of 18 Brumaire when the Directory was overthrown. Talleyrand once again became the foreign minister.

He resigned his position in 1807 but continued to play a significant role in Napoleon's court, perhaps being one of the most influential men in the Empire (Cooper 2001). At the same time, he started secret negotiations with Austria and Russia, accepting bribes for information on Napoleon's plans. Napoleon seemed to be aware of Talleyrand's lack of loyalty and limited his influence, at one time subjecting him to public humiliation. However, Napoleon stopped short of using violence against Talleyrand, believing him to be indispensable. When the armies of Russia, Austria, and Prussia marched on Paris in the spring of 1814, Napoleon regretted that his old foreign minister was not there to help: "If only Talleyrand were here—he would get me out of it."[11]

After the first defeat of Napoleon, Talleyrand was instrumental in restoring the Bourbon dynasty to the throne, becoming the prime minister in 1814 and once again in 1815 after Napoleon's final defeat at Waterloo. Resigning shortly after, he spend the next 15 years in political semi-exile. After the 1830 July revolution he was summoned once again to become the ambassador to the United Kingdom—a position he held for four years, before retiring from politics for good due to his old age.

The actions of Talleyrand are explained by my model. Loyalty is costly: if Talleyrand wanted to be loyal, he would have had to refuse significant bribes from foreign states. However, he might well have considered himself to be indispensable to the country (judging from his own experience and Napoleon's attitudes); perceiving a high probability of being included in coalitions of Napoleon's potential successors, he chose not to bear the costs of loyalty.

Highly capable senior officials are a threat to the regime because of their value to any future government. Field marshal Erwin Rommel was one of the most decorated military commanders in Nazi Germany. In 1944 he was approached by leaders of the anti-Hitler plot who planned an overthrow of the Nazi-led German government. They needed a general who was of a senior rank, on active duty, and highly popular with the military. Rommel was one of the few Wehrmacht officers who fit this description (Shirer 1990) and agreed to join the conspiracy.[12] In their government, the conspirators also planned to include a number of senior Nazi officials who were not part of the plot. One such person was Albert Speer, who was to retain his position as the Minister of Armament and War Production (Speer 1970) but was not aware of these plans or even of the conspiracy itself.

Leaders are aware of the threat posed by lieutenants who are competent enough to outlive them and often elect to choose incompetent subordinates. Tzar Nicholas I of Russia was explicit about putting loyalty above competence and integrity, even though some of his loyal subordinates were very corrupt. When Nicholas learned about an extremely egregious case of theft by one of his closest confidants, he blurted: "Ryleyev and his conspirators would never have done this to me."[13] Kondraty Ryleyev was one of the executed leaders of the failed 1825 Decembrist revolt that sought the abolition of serfdom and other political reforms. The Decembrists belonged to a subculture within Russian nobility that emphasized honesty, integrity, patriotism, and learning (Lotman 1984). Choices such as Nicholas's are also explained by my model. If competence is not highly valued (it was valued in France during the turbulent decades following the French revolution), then it makes sense to recruit an incompetent subordinate who will rise and fall with the ruler.

11. Quoted in Cooper (2001).

12. The coup failed, and Rommel was forced to commit suicide.

13. Quoted in Tarle (1950).

Several recent large-*N* studies show that, in certain circumstances, loyalty is more important than competence for promotion in nondemocratic countries. Xi (2013) analyzed appointment of provincial governors in Qing China; Reuter and Buckley (2012, 2015) looked at gubernatorial and vice-gubernatorial appointments in modern Russia; and Shih, Adolph, and Liu (2012) analyzed promotions to and within the Chinese Central Committee during 1982–2002. Francois, Rainer, and Trebbi (2013) estimated hazard rates for the posts of cabinet ministers in sub-Saharan countries. The hazard rates increased with time and were higher for most powerful positions, which is consistent with the hypothesis that leaders do not allow their subordinates to accumulate political capital and competence.

Of particular relevance to my work, Bai and Zhou (2014) focused on the early period of Chinese Cultural Revolution. The authors argue that the Chinese leader Mao Zhedong followed an explicitly anticompetence policy when selecting members of the Communist Party's Central Committee in April 1969. Other things being equal, education or military rank negatively affected one's chances of retaining one's place in the Committee. This event followed a period during which Mao tightened his grip on power, purging and imprisoning political rivals. The replacement of competent subordinates by incompetents who have lower outside options (and, most likely, are more abundant) following a consolidation of power by the dictator is predicted by my model.

Principals were also observed to prefer incompetent agents in experimental settings in Montinari, Nicolo, and Oexl (2012). In their design, a principal had to choose one of the two agents to carry out a task; one of the agents had a lower productivity level. A significant share of principals chose agents with the lower productivity who, on average, contributed higher effort. The authors attributed this behavior to a reciprocity norm on behalf of the agent who wanted to reward the principal for choosing them over their more qualified counterparts.

The prediction that longer leader tenures will be negatively correlated with the quality of subordinates is implicitly supported by several empirical works linking accountability and frequency of leader turnover to various measures of government efficiency (Adsera, Boix, and Payne 2003) and economic growth (Besley and Kudamatsu 2007). Long-lived personalist dictators tend to be particularly predatory and produce inferior economic outcomes (Haber 2005). An explicit panel or cross-country test of the quality-tenure relationship and other predictions made in this work will be possible once new cross-country data sets detailing the competence of top state officials become available.

ACKNOWLEDGMENTS

I am grateful to Maxim Ananiev, Georgy Egorov, Andrei Gomberg, Sergei Guriev, Philip Keefer, Tommaso Nannicini, Anton Sobolev, Konstantin Sonin, and Richard van Weelden for their comments. Thanks also to three anonymous referees for their feedback.

REFERENCES

Adsera, Alicia, Carles Boix, and Mark Payne. 2003. "Are You Being Served? Political Accountability and Quality of Government." *Journal of Law and Economics* 19 (2): 445–90.

Bai, Ying, and Titi Zhou. 2014. "Mao's Last Revolution: A Loyalty-Competence Tradeoff." Unpublished manuscript.

Besley, Timothy, and Masayuki Kudamatsu. 2007. "Making Autocracy Work." LSE STICERD Research Paper no. DEDPS48.

Besley, Timothy, Jose G. Montalvo, and Marta Reynal-Querol. 2011. "Do Educated Leaders Matter?" *Economic Journal* 121:205–27.

Boix, Carles, and Milan Svolik. 2013. "The Foundations of Limited Authoritarian Government: Institutions, Commitment, and Power-Sharing in Dictatorships." *Journal of Politics* 75 (2): 300–316.

Bruckner, Markus, and Antonio Ciccone. 2011. "Rain and the Democratic Window of Opportunity." *Econometrica* 79 (3): 923–47.

Bueno de Mesquita, Bruce, and Alastair Smith. 2011. *The Dictator's Handbook: Why Bad Behavior Is Almost Always Good Politics*. New York: Public Affairs.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press.

Buisseret, Peter E., and Carlo Prato. 2013. "Electoral Control and the Human Capital of Politicians." http://ssrn.com/abstract=2325694 (accessed May 5, 2015).

Burkart, Mike, Fausto Panunzi, and Andrei Shleifer. 2003. "Family Firms." *Journal of Finance* 58 (5): 2167–202.

Burke, Marshall B., Edward Miguel, Shanker Satyanath, John A. Dykema, and David B. Lobell. 2009. "Warming Increases the Risk of Civil War in Africa." *Proceedings of the National Academy of Sciences* 106 (49): 20670–674.

Burke, Paul J., and Andrew Leight. 2010. "Do Output Contractions Trigger Democratic Change?" *American Economic Journal: Macroeconomics* 2 (4): 124–57.

Chayes, Sarah. 2015. *Thieves of State: Why Corruption Threatens Global Stability*. New York: W. W. Norton.

Chehabi, Houchang, and Juan Linz, eds. 1998. *Sultanistic Regimes*. Baltimore: Johns Hopkins University Press.

Collier, Paul, and Anke Hoeffler. 2007. "Military Spending and the Risks of Coups d'Etat." Unpublished manuscript.

Cooper, Duff. 2001. *Talleyrand*. New York: Grove Press.

Debs, Alexandre. 2006. "Political Strength and Economic Efficiency in a Multi-Agent State." Unpublished manuscript.

Dragu, Tiberiu, and Mattias Polborn. 2013. "The Administrative Foundation of the Rule of Law." *Journal of Politics* 75 (4): 1038–50.

Easterly, William, and Steven Pennings. 2014. "How Much Do Leaders Explain Growth? An Exercise in Growth Accounting." Unpublished manuscript.

Edwards, George C. 2001. "Why Not the Best? The Loyalty-Competence Trade-Off in Presidential Appointments." *Brookings Review* 19:12–26.

Egorov, Georgy, Sergei Guriev, and Konstantin Sonin. 2009. "Why Resource-Poor Dictators Allow Freer Media: A Theory and Evidence from Panel Data." *American Political Science Review* 103 (4): 645–68.

Egorov, Georgy, and Konstantin Sonin. 2011. "Dictators and Their Viziers: Endogenizing the Loyalty-Competence Tradeoff." *Journal of the European Economic Association* 9 (5): 903–30.

Escribà-Folch, Abel. 2013. "Repression, Political Threats, and Survival under Autocracy." *International Political Science Review* 34 (5): 534–60.

Ezrow, Natasha M., and Erica Frantz. 2011. *Dictators and Dictatorships: Understanding Authoritarian Regimes and Their Leaders*. New York: Continuum.

Fearon, James D., and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75–90.

Francois, Patrick, Ilia Rainer, and Francesco Trebbi. 2013. "The Dictator's Inner Circle." Working Paper no. 20216, National Bureau of Economic Research, Cambridge, MA.

Gandhi, Jennifer. 2008. *Political Institutions under Dictatorship*. New York: Cambridge University Press.

Gasiorowski, Mark J. 1995. "Economic Crisis and Political Regime Change: An Event History Analysis." *American Political Science Review* 89 (4): 882–97.

Geddes, Barbara. 1994. *Politician's Dilemma: Building State Capacity in Latin America*. Oakland: University of California Press.

Glazer, Amihai. 2002. "Allies as Rivals: Internal and External Rent Seeking." *Journal of Economic Behavior and Organization* 48:155–62.

Grossman, Herchel I., and Suk Jae Noh. 1994. "Proprietary Public Finance and Economic Welfare." *Journal of Public Economics* 53:187–204.

Guttman, Joel M., and Rafael Reuveny. 2014. "On Revolt and Endogenous Economic Policy in Autocratic Regimes." *Public Choice* 159 (1): 27–52.

Haber, Stephan. 2005. "Authoritarian Government." In Donald A. Wittman and Barry R. Weingast, eds., *The Oxford Handbook of Political Economy*. New York: Oxford University Press.

Jones, Benjamin F., and Benjamin A. Olken. 2005. "Do Leaders Matter? National Leadership and Growth since World War II." *Quarterly Journal of Economics* 120 (3): 835–64.

Kim, Hunjoon, and Kathryn Sikkink. 2010. "Explaining the Deterrence Effect of Human Rights Prosecutions for Transitional Countries." *International Studies Quarterly* 54 (4): 939–63.

Kim, Nam Kyu. 2014. "Revisiting Economic Shocks and Coups." *Journal of Conflict Resolution* doi: 10.1177/0022002713520531.

Kräkel, Matthias. 2012. "Competitive Careers as a Way to Mediocracy." *European Journal of Political Economy* 28 (1): 76–87.

Lagerlöf, Nils-Petter. 2012. "A Dynamic Theory of Competence, Loyalty and Stability in Dictatorships." *B.E. Journal of Macroeconomics* 12 (1) doi: 10.1515.1935-1690.2409.

Lotman, Jury M. 1984. "The Decembrist in Everyday Life." In Ann Shukman, ed., *The Semiotics of Russian Culture*. Ann Arbor: University of Michigan Press.

Maddison, Agnus. 2006. *The World Economy*. OECD Development Centre.

Matozzi, Andrea, and Antonio Merlo. 2010. "Mediocracy." Working Paper, National Bureau of Economic Research, Cambridge, MA.

McBride, Michael. 2005. "Crises, Reforms, and Regime Persistence in Sub-Saharan Africa." *European Journal of Political Economy* 21:688–707.

McGuire, Martin C., and Mancur Olson Jr. 1996. "The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force." *Journal of Economic Literature* 34 (1): 72–96.

Miguel, Edward, Shanker Satyanath, and Ernest Sergenti. 2004. "Economic Shocks and Civil Conflict: An Instrumental Variables Approach." *Journal of Political Economy* 112 (4): 725–53.

Montinari, Natalia, Antonio Nicolo, and Regine Oexl. 2012. "Mediocrity and Induced Reciprocity." Working Paper no. 2012-19, University of Innsbruck, Economics and Statistics.

Myerson, Roger B. 1997. *Game Theory: Analysis of Conflict*. Cambridge, MA: Harvard University Press.

Olsen, Tricia D., Leigh A Payne, and Andrew G. Reiter. 2010. "Transitional Justice in the World, 1970–2007: Insights from a New Dataset." *Journal of Peace Research* 47 (6): 803–9.

Overland, Jody, Kenneth L. Simons, and Michael Spagat. 2005. "Political Instability and Growth in Dictatorships." *Public Choice* 125 (3/4): 445–70.

Powell, Jonathan. 2012. "Determinants of the Attempting and Outcome of Coups d'Etat." *Journal of Conflict Resolution* 56 (6): 1017–40.

Prendergast, Canice, and Robert Topel. 1996. "Favoritism in Organizations." *Journal of Political Economy* 104:958–78.

Rauch, James E., and Peter B. Evans. 2000. "Bureaucratic Structure and Bureaucratic Performance in Less Developed Countries." *Journal of Public Economics* 75:49–71.

Reuter, Ora John, and Noah Buckley. 2012. "Subnational Appointments in Authoritarian Regimes: Evidence from Russian Gubernatorial Appointments." *Journal of Politics* 74 (4): 1023–37.

Reuter, Ora John, and Noah Buckley. 2015. "Performance Incentives under Autocracy: Evidence from Russia's Regions." http://ssrn.com/abstract=2506868 (accessed May 5, 2015).

Robinson, James A. 1999. "When Is a State Predatory?" Working Paper no. 178, Center for European Studies.

Robinson, James A., and Ragnar Torvik. 2005. "White Elephants." *Journal of Public Economics* 89:197–210.

Shih, Victor, Christopher Adolph, and MingXing Liu. 2012. "Getting Ahead in the Communist Party: Explaining the Advancement of Central Committee Members in China." *American Political Science Review* 106 (1): 166–87.

Shirer, William. 1990. *The Rise and Fall of the Third Reich: A History of Nazi Germany*. New York: Simon & Schuster.

Simpser, Alberto. 2013. *Why Governments and Parties Manipulate Elections: Theory, Practice, and Implications*. Cambridge: Cambridge University Press.

Speer, Albert. 1970. *Inside the Third Reich: Memoirs*. New York: Macmillan.

Svolik, Milan W. 2012. *The Politics of Authoritarian Rule*. Cambridge: Cambridge University Press.

Svolik, Milan W. 2013. "Contracting on Violence: The Moral Hazard in Authoritarian Repression and Military Intervention in Politics." *Journal of Conflict Resolution* 57 (5): 765–94.

Tarle, Yevgenii. 1950. *Krymskaia voina*, 2 vols. Moscow and Leningrad.

Thyne, Clayton L. 2010. "Supporter of Stability or Agent of Agitation? The Effect of US Foreign Policy on Coups in Latin America, 1960–99." *Journal of Peace Research* 47 (4): 449–61.

van der Ploeg, Frederick. 2011. "Natural Resources: Curse or Blessing?" *Journal of Economic Literature* 49 (2): 366–420.

Wagner, Alexander F. 2006. "Loyalty and Competence in Public Agencies." *Public Choice* 146:145–62.

Wagner, Alexander F. 2011. "An Economic Analysis of Loyalty and Competence." Unpublished manuscript.

Weede, Erich. 1996. "Political Regime Type and Variation in Economic Growth Rates." *Constitutional Political Economy* 7:167–76.

Wilson, James Q. 1989. *Bureaucracy*. New York: Basic Books.

Wintrobe, Ronald. 1998. *The Political Economy of Dictatorship*. Cambridge: Cambridge University Press.

Xi, Tianyang. 2013. "Loyalty versus Competence: Internal Conflicts and the Pattern of Bureaucratic Control in China, 1644–1911." Unpublished manuscript.

Zudenkova, Galina. 2015. "Political Cronyism." *Social Choice and Welfare* 44:473–92.