

Opportunistic, not Optimal Delegation: The Political Origins of Central Bank Independence

Abstract

Economists have long argued that central banks run by technocrats have greater policy independence from the government. But in many countries, politically experienced central bankers are at the helm, including those banks that are highly independent. To explain why, we develop a formal model where central bank nominees are screened for their political ambitions and show how screening and reelection efforts by the nominating official changes the level of policy discretion awarded to different types of candidates. We predict that technocrats get higher levels of policy discretion than nominees with political experience, but as the appointing official faces tougher reelection, those candidates with political experience get higher policy discretion as well. We test our theory using new data from 29 post-communist countries between 1990-2012. We find evidence that the reelection strategy of the nominating official is an important predictor of the level of policy discretion awarded.

Introduction

Economists have long argued that central bank independence (CBI) protects citizens from opportunistic governments. They believe that appointing a politically independent, technocratic central banker can shield the economy from expectations driven inflation. Puzzling, however, is that while the level of central bank independence is increasing globally (Garriga 2016), we continue to see central bank governors (CBGs) with either past or future political experience. What explains the co-occurrence of rising central bank independence on the one hand and politically experienced central bankers on the other hand? What role (if any) do the electoral strategies of the appointing politician play in how much policy independence is awarded?

According to the standard delegation story, the government gives up monetary policy discretion to independent experts with inflation aversion (Barro and Gordon 1983; Rogoff 1985; Bodea and Higashijima 2017) so as to commit to credible low inflation.¹ Research suggests that delegation works best in democracies (Broz 2002; Bearce and Hallerberg 2011; Bodea and Higashijima 2017), although, even in non-democracies, handing over monetary authority to bureaucratic experts, or technocrats, can help save the economy from economic cycles, especially if power is shared with elites through dominant parties (Shih 2008; Bodea, Garriga, and Higashijima 2017). With its focus on credibility, previous explanations ignore the possibility that central bankers themselves may have ambitions for elected office and consequently, those individuals appointing central bankers have incentives to screen central bank candidates for their electoral ambitions as well as their policy preferences. For example, we observe a number of cases where the heads of even highly independent central banks have previously ran in and won elections. In the Czech Republic, the first governor of the newly independent central bank, Josef Tošovský, also served as the country's prime minister in 1998, subsequently going back to head the central bank until 2000. Later on, the CBG, Jiří Rusnok acted as the country's prime minister from 2013 to 2014 (Petříček 2016).

¹But see Ainsley (2017), which suggests that delegation to inflation-adverse bankers is suboptimal.

Furthermore, at times, central bank appointments to candidates with political backgrounds coincide with *increases*, not drops, in policy discretion. For example, in Ukraine in 2010, CBG Volodymyr Stelkmakh was pressured to resign to make way for Serhiy Arbuzov, yet, at the time of Arbuzov’s appointment, formal central bank independence *rose* rather than declined.² Arbuzov went on to have a prominent political career, serving as vice–prime minister and then prime minister following his stint at the National Bank of Ukraine (Dpa International 2010; BBC Monitoring: International Reports 2011).

Instead of focusing on the policy preferences of the central bank candidate, in this paper, we shift focus and instead consider how the reelection efforts of the politician with appointment powers to the central bank affects the level of policy discretion awarded to the CBG. We show how the level of policy independence a politician awards to a CBG depends on how easy or hard it is for the appointing politician to identify the “electoral threat level” of the CBG candidate. In the case where the politician is relatively uncertain about the political ambitions of the candidate, the nominating politician commits resources to deter any politically minded CBG candidates from disguising their political ambitions. Consequentially, candidates whose biography shows no inclination towards holding political office are more likely to be awarded greater levels of discretion than those with past political experience. Yet, as the appointing politician becomes more electorally insecure, it becomes less efficient for her to commit resources to deterring politically interested CBG candidates — additional effort spent on screening candidates will not increase her chance of winning the election relative to other reelection tactics. Thus, under these conditions, the nominating politician expends relatively less effort on screening CBG candidates for their political aspirations and delegates similar levels of policy independence to candidates irrespective of whether they held political office before. We therefore predict that increases in the electoral insecurity of the politician with appointment powers is associated with increases in discretion awarded to central bankers with

²According to measures from Bodea and Hicks (2015), CBI rose from 0.71 to 0.87 in the year of Arbuzov’s appointment.

political experience.

Our mechanism is analogous to traditional labor market screening models. Consider a situation where an employer does not know a job seeker's true ability and would like to screen out candidates of low ability from those of high ability. The pool of candidates that the prospective employer faces, however, can vary. If the unemployment rate is relatively high such that the employer has a wealth of candidates to choose from, it is efficient for the employer to spend resources on sorting out candidates of low quality. Alternatively, if all job candidates are expected to be of low quality, or the labor market is competitive, it is less efficient for the employer to invest in screening candidates. One consequence of this situation is that even low ability candidates may get higher wages. In our case, that means that when all CBG candidates are politically ambitious or if the appointing politician is electorally vulnerable, screening no longer "pays" and even politically ambitious CBG candidates are awarded relatively higher levels of policy discretion as well.

Our main empirical expectation is that under conditions of electoral competition, CBGs with political experience are awarded higher levels of policy discretion than the same candidates would be if the nominating politician was more electorally secure. We test our argument using original data from 29 post-communist countries between 1990 and 2012. As the main dependent variable, we measure monetary policy discretion a number of ways including rules allowing independent policy-making and formal restrictions on lending to the government (Garriga 2016). We find that when CBGs with political experience are appointed, their central banks can lend to governments more easily and are less policy-independent. However, as elections facing the appointer become more competitive, any gap in policy independence and lending limitations narrows for those governors that have political experience compared to those without. Such a finding is consistent with our argument that nominating officials can appoint technocrats to deter politically minded CBGs, but their willingness to do so decreases as their own electoral insecurity rises.

Our findings offer a new explanation for the puzzle of why we observe both central banks that are highly independent yet are also staffed with politically experienced CBGs. We show that any

policy independence penalty that politically experienced CBGs receive on account of their political background attenuates as the nominating politician becomes more electorally vulnerable. Our theory therefore highlights a new mechanism illustrating the politics of central bank appointments, demonstrating how institutional independence may be compromised by the electoral strategies of those already in power. Our theory aligns well with a growing literature showing the opportunistic use of bureaucratic institutions by political elites and the prevalence of inter-elite politics, especially in countries transitioning to democracy (Alesina and Tabellini 2007; Gandhi and Lust-Okar 2009; Svobik 2009).

The Political Origins of CBI

Previous explanations for CBI usually center on domestic factors, such as policy preferences and partisanship; the role of democracy and democratic institutions; the solving of political business cycles (see, e.g., Kydland and Prescott 1977; Barro and Gordon 1983; Chang 2003; Bearce and Hallerberg 2011; Alesina, Roubini, and Cohen 1997); or the role of international organizations, private capital markets, and pressures for reforms by internationally linked epistemic communities (Gray 2009; Johnson 2016; Maxfield 1998; Santiso 2013; Giesenow and Haan 2019). Even in non-democracies, Shih (2008), shows how Chinese party cadres are willing to hand over monetary policy to an elite faction that does not want to expand the monetary base and trigger short-term growth, but do so only when the economy is doing poorly.³

Even if governments would prefer to control the money supply, the economic and political benefits of monetary delegation often compel them to delegate. Besides reducing expectations-driven inflation, delegation of monetary policy to an autonomous central bank can help stabilize coalitions with diverse policy preferences (Crowe 2008); can restrain deficit spending (Bodea and Higashijima 2017); and can reduce information asymmetries among legislators, coalition partners, and government officials. Such latter achievements are also associated with the quelling of costly

³For a good review, see Goodman (1991) and Fernández-Albertos (2015).

domestic conflicts between factions or rivals (Bernhard 1998; Treisman 2000).

In addition to these institutional accounts, scholars also highlight the personal attributes of central bankers and the role that their individual backgrounds might play. In Kaplan (2017), left-leaning parties use information about the educational background of central bankers to infer their policy preferences and find that left governments appoint mainstream economists, but only when the economy is doing poorly. In Johnson (2016), appointers use information about careers in international organizations (IOs) to determine preferences. Actors with IO experience are expected to hold loyalties to global epistemic communities, which skews their preferences towards their international peer group. Similarly in Adolph (2013), central bankers' future career aspirations can affect their present policy preferences, with those interested in a future career in finance demonstrating more inflation aversion.

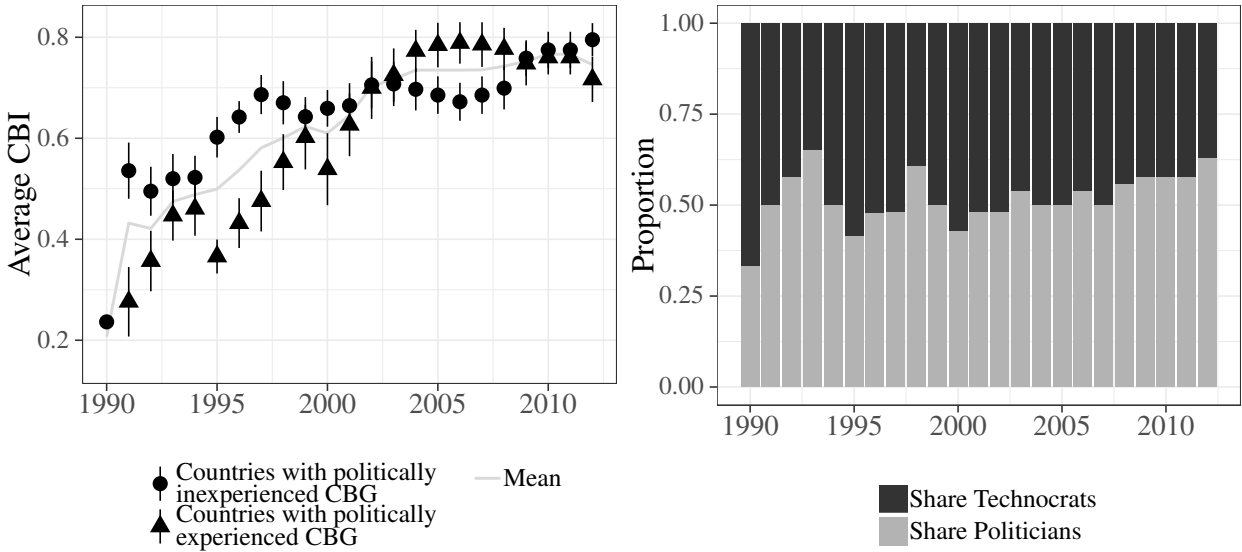
While the aforementioned literature finds that candidates are likely screened for their policy preferences or expertise, to our knowledge, previous research ignores whether (or when) candidates are screened for political backgrounds. Furthermore, no research to our knowledge examines how incentives to deter politically minded CBGs may affect the level of policy discretion awarded. Yet, in looking at countries around the world, it is important to note that members of the professional class often play multiple roles, including holding both elected and appointed office during one's career, especially in countries transitioning to democracy.⁴ Indeed, while central bankers in most developed countries seem uninterested in running or winning elections, there is little evidence that electoral disinterest applies to developing countries.

According to the biographies of CBGs in post-communist countries, which is the sample of countries we focus on in this paper, between 1990 and 2012, 76 out of 160 (47%) central bankers acted as politicians before taking the helm of the country's central bank. Figure 1 shows both the increase in CBI and also variation in the proportion of technocrats (operationalized as having had vocational experience exclusively outside of government) versus politicians (operationalized

⁴For recent exceptions, see Johnson 2016; Shih 2008; Kaplan 2017

as vocational experience inside of government) appointed as CBGs in post-communist countries since transition. Even more puzzling is that while the number of central bankers with political experience and those that do not has stayed relatively constant over time, CBI has risen, and it has risen at a faster pace for those CBGs with political experience. These two trends, the relatively constant share of technocrats and the increase in the level of CBI awarded to CBGs with political experience suggests that something in addition to the standard delegation story is at play. We offer a theoretical model that suggests that the electoral vulnerability facing the appointing politician is one previously unexplored explanation of these trends.

Figure 1: CBI and Political Appointments



Theory

This section presents a formal model illustrating our argument. We present a simple, two actor screening model where a principal, in this case a politician with appointment powers to the central bank, has imperfect information about a possible CBG’s political ambition.⁵ We present our argu-

⁵This is different than in Alesina and Tabellini 2007 who consider a similar appointment situation from a normative perspective.

ment in three steps. Firstly, we consider a situation where the nominating politician, who we call the “leader,” needs to appoint a central bank head. At the same time, she wants to ensure her own reelection and also wants to give up as little policy discretion to the nominee as possible. Assuming the leader is assessing a single candidate for the job, she needs to decide both the optimal level of policy discretion to award to the candidate as well as sufficiently invest in her reelection strategy against a potential political rival. To simplify the model, we assume that the leader only considers a single candidate and any selection criteria besides the political ambitions of the candidate occurred previously.⁶ We also assume that the candidate’s political ambitions are less well known to the leader than they are to the candidate. While the leader can observe information about the candidate’s past career to infer political ambition, the leader remains, however, only imperfectly informed. The key question that the leader then asks is how to both ensure her reelection and also limit the amount of policy discretion given to the candidate?

Secondly, we show how the leader (she) can prevent the candidate (he) from misreporting his true type by making discriminating offers. More specifically, the leader presents the candidate with a menu of appointment offers with a different set of policy discretion, d and reelection efforts, e , committed to different realizations of the candidate’s type. We show that in equilibrium, the leader makes discriminating offers in order to induce the candidate to reveal his true type. Intuitively, the leader lays out different combinations of re-election efforts and policy discretion which target the different types of candidates. By promising greater policy discretion to those more interested in policy, the leader can deter those types that are politically ambitious from misreporting. In the end, each type accepts a different offer from the leader, and, holding all else constant, policy discretion is *lower* for those with political ambitions.

Thirdly, while the candidate’s true political ambitions are unknown, their previous career path is observable. Therefore, we compare the leader’s offer to the candidate when she observes prior

⁶We do not have lists of the possible pool of candidates nor measures of their policy preferences, so we assume that any candidate meets the leader’s other criteria at some early stage.

political experience and when she does not. Since politically experienced candidates are also those candidates more likely to be interested in electoral politics, the leader wants to grant less discretion. Working in an opposing direction, however, the leader has less incentive to invest resources on separating types as the candidate becomes either more electorally motivated or as the election becomes more competitive because any information gained is marginally less efficient. For example, in the case where it becomes more certain that the candidate is politically motivated, it pays marginally less to acquire such information. Similarly, as the election becomes more fierce, spending resources on information gathering at the expense of other tools to secure the election is more costly. As either the electoral arena becomes more competitive or the exogenous pool of possible candidates becomes, on average, more electorally threatening, the level of discretion awarded to candidates with political experience *increases*, holding all else constant, as the appointer commits less resources to blocking their entry.

The Model

Formally, consider a situation where a nominating politician or leader, (L) must appoint a candidate to the central bank, (K).⁷ In the United States, the nominating official is the president, however, in other countries, other political actors make central bank appointments as well. Importantly, in our model, the candidate the leader considers is both the leader's agent and also a possible electoral rival. We assume that different candidates have different relative preferences for holding political office, f , and policy discretion, p . To keep our model general, we model these preferences as depending on three things: Candidate K 's preference for holding political office, $\theta > 0$; the Leader L 's reelection efforts, $e \in [0, 1]$; and the amount of policy discretion the leader grants the candidate $d \in [0, 1]$. We call a candidate with relatively little interest in holding political office a *Technocrat* and a candidate with a stronger interest in political life a *Contender*. We make a number of assumptions in order to keep the model simple, which we outline below. While more

⁷We use K as the nominee so as not to confuse him with a contender.

complicated models are certainly possible, we try to limit the model such that it illustrates our key mechanism.

Assumptions about the actors: First, as mentioned, we assume that the leader considers only a single candidate and wants to determine whether the candidate is politically ambitious or not. To keep it simple, we assume that other dimensions, such as his policy preferences, are acceptable to the leader. We also assume that candidate K is only of two types: policy seeking (θ) (i.e. a technocrat) or office seeking ($\bar{\theta}$) (i.e. a contender) and that K 's political ambition, or type, is private information known only to himself. We also assume that contenders always want elected office more than technocrats, so that $f(e, \bar{\theta}) > f(e, \theta)$ for all $e(\theta) > 0$.⁸ We also assume that the leader's own expected valuation of retaining office, $o(e)$, is increasing in her reelection efforts.⁹

Assumptions about the relationship between variables: Second, we assume that there is a positive relationship between policy discretion, effort, and the candidate's expected influence over policy.¹⁰ We also assume that the leader faces a greater risk of losing an election the more formidable the candidate. Therefore, we assume that the likelihood of winning the election is positively related to the leader's effort: the more effort the leader expends, the safer her reelection.¹¹

Assumptions about information: Finally, we also assume that while the leader cannot perfectly observe the candidate's type, the leader can observe the candidate's previous career.¹² From observing the candidate's previous career path, the leader can derive (imperfect) information about whether the nominee is a technocrat or a contender.¹³

⁸We also assume that K 's elected office value is continuous, twice differentiable, and decreasing in the leader's reelection effort so that $\frac{\partial f}{\partial e} = f_1 < 0$ and $\frac{\partial f}{\partial e^2} \geq 0$.

⁹ $\frac{\partial o}{\partial e} = o_1 > 0$.

¹⁰ $p(e, d)$, increases such that $\frac{\partial p}{\partial e} > 0$ and $\frac{\partial p}{\partial d} > 0$.

¹¹In our model, stronger candidates discourage the leader from investing additional effort, which increases the odds of unseating the leader (Banks and Kiewiet 1989). Formally, we define the electoral vote-margin, v , as a function of the leader's reelection efforts, $v(e)$, so that $\frac{\partial v}{\partial e} > 0$ and $\frac{\partial v}{\partial e^2} < 0$ with $v(e) \in [0, 1]$.

¹² $\pi \in \{0, 1\}$, where $\pi = 1$ indicates that the candidate has held a political office before. Let $\Phi(\pi)$ be the probability that a nominee turns out to be a contender conditional on his past political career or $\Phi(\pi) = P(\theta = \bar{\theta} | \pi)$.

¹³A contender had incentives to enter into politics prior to becoming a candidate for the central bank governorship. Similar to the connection between latent productivity and education level of workers in job-market screening models (Spence 1973), political ambitions may influence a nominee's previous career path. Contenders incur less costs of choosing a career path involving politics or have less prospects in career paths outside politics.

Equation (1) shows the candidate's payoff. K 's utility increases in the expected office valuation and the expected valuation of policy influence if he accepts the appointment. In the case where he rejects, K receives a reservation utility, $r > 0$.

$$u_K(d, e, \theta) = \begin{cases} f(e, \theta) + p(e, d) & \text{if K accepts} \\ r & \text{if K rejects.} \end{cases} \quad (1)$$

Similarly, the leader's payoff is given in equation (2).

$$u_L(d, e, \theta) = \begin{cases} o(e) - p(e, d) - c(e) & \text{if K accepts} \\ 0 & \text{if K rejects} \end{cases} \quad (2)$$

Like K , L 's payoff increases in the expected office valuation o but decreases in the level of discretion awarded. In other words, the leader would like to win the election, award little discretion, and expend effort efficiently. To keep things simple, we normalize the leader's reservation utility to zero in the case where the candidate rejects. Lastly, we assume that reelection efforts are increasing at an increasing rate.¹⁴

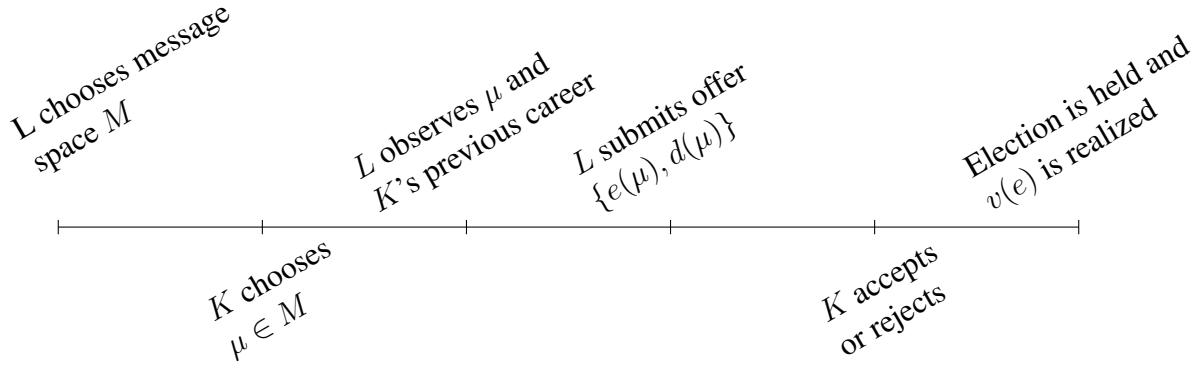
Game Sequence

The game sequence is depicted in Figure 2. Unaware of the candidate's political ambition, the leader's choice depends on a costless message, sent by the candidate, about his type. First, the leader chooses a message space, M , from which the candidate, K , chooses to report his type, $\mu \in M$. Having observed K 's message, L makes K an offer to become central bank governor, with the offer consisting of a level of policy discretion $d(\mu) \in [0, 1]$ and reelection effort $e(\mu) \in [0, 1]$. Importantly, we assume that the leader is committed to this offer and discretion

¹⁴ $c(e)$ with $c(0) = 0$, $\frac{\partial c}{\partial e} = c_1 \geq 0$ and $\frac{\partial c}{\partial e^2} = c_2 \geq 0$

and reelection efforts are offered simultaneously as a “take it or leave it” deal. The candidate then accepts or rejects the leader’s offer. We solve the game for perfect Bayesian equilibria (PBE) in pure strategies.

Figure 2: Model Sequence



Equilibrium

A key concern of the leader is that both *technocrats* and *contenders* may benefit from misreporting their type. If the leader makes a one-size-fits-all offer, both types of candidates may have an incentive to try to extract more concessions from the leader.¹⁵ Following the revelation principle (Myerson 1979), we focus on characterizing a truth-telling mechanism i.e. an offer menu that depends on the true types of candidate K . We simplify notation so that $d(\underline{\theta}) = \underline{d}$, $d(\bar{\theta}) = \bar{d}$, $e(\underline{\theta}) = \underline{e}$ and $e(\bar{\theta}) = \bar{e}$ and find that the candidate reports truthfully as long as the leader’s offer satisfies the following constraint for each type:

$$u_K(\underline{d}, \underline{e}, \underline{\theta}) \geq u_K(\bar{d}, \bar{e}, \underline{\theta}) \quad (\underline{IC})$$

$$u_K(\bar{d}, \bar{e}, \bar{\theta}) \geq u_K(\underline{d}, \underline{e}, \bar{\theta}) \quad (\bar{IC})$$

These constraints are important for uncovering the equilibrium outcome given the cases of reported

¹⁵In the appendix we show how the leader always gains by preventing the nominee from misreporting.

types shown in the next section.

Case 1: Candidate says he is a Technocrat

We first establish L's equilibrium offer if the candidate reports that he is a technocrat. Since L always prefers that K accepts her offer, she needs to make an offer that is larger than the candidate's reservation utility. As the candidates can be of two types, this implies that the offer must be greater than the reservation utility of both types, or:

$$f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \geq r \quad (\bar{P})$$

$$f(\underline{e}, \underline{\theta}) + p(\underline{e}, \underline{d}) \geq r \quad (\underline{P})$$

In conjunction with the truth telling constraint listed above, \bar{IC} , \underline{P} implies that,

$$f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \geq r + f(\underline{e}, \bar{\theta}) - f(\underline{e}, \underline{\theta}). \quad (3)$$

Two implications follow from equation (3). First, if an offer is acceptable to a technocrat, it will also be acceptable to a contender. Second, a technocrat always receives exactly his reservation utility in the form of some combination of effort and policy discretion.¹⁶

Case 2: Candidate says he is a Contender

Next, we consider the leader's equilibrium offer if the candidate reports that he is a contender. Intuitively, the leader, not being able to observe the candidate's political ambition, is concerned that the candidate might misreport his type. In order to prevent misreporting, the leader must therefore implement an offer strategy that balances the commitment of reelection efforts on the one hand and

¹⁶How effort and policy discretion relate in equilibrium depends on the relative size of his reservation utility, r , and the value that he places on holding elected office.

the delegation of policy discretion on the other hand while minimizing the information advantage that the candidate has. The leader's equilibrium offer reflects these trade-offs.

First, we find that the leader grants more discretion to a candidate reporting to be a technocrat than to a candidate reporting to be a contender.¹⁷ As effort is increasing in discretion, nominees who are technocrats also face more reelection efforts devoted by the leader. Second, any additional effort exerted towards a technocrat is increasing in the leader's prior belief that the nominee is a contender.¹⁸

Proposition 1

In equilibrium, the leader's offer, e^ , d^* satisfies discriminating offers:*

$$\begin{aligned}
 f_1(\bar{e}^*, \bar{\theta}) &= c_1(\bar{e}^*) - o_1(\bar{e}^*) & p(\bar{d}^*, \bar{e}^*) &= r - f(\bar{e}^*, \bar{\theta}) \\
 f_1(\underline{e}^*, \underline{\theta}) &= c_1(\underline{e}^*) - o_1(\underline{e}^*) & &+ f(\underline{e}^*, \bar{\theta}) - f(\underline{e}^*, \underline{\theta}) \\
 &+ \frac{\Phi}{1 - \Phi} (f_1(\underline{e}^*, \bar{\theta}) - f_1(\underline{e}^*, \underline{\theta})) & p(\underline{d}^*, \underline{e}^*) &= r - f(\underline{e}^*, \underline{\theta})
 \end{aligned}$$

Importantly, while the leader cannot observe the true political ambitions of the candidate, she can observe his prior career-path. One important question, therefore, centers on how information about the nominee's prior experience affects the relationships above?

Proposition 2

If the leader's expected value of holding office is sufficiently high, she offers less discretion to a candidate with political experience.

$$\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi} < 0 \text{ if } o(\underline{e}^*) > 2 \frac{\partial f(\underline{e}^*, \bar{\theta})}{\partial \Phi} - f(\underline{e}^*, \bar{\theta}) - c(\underline{e}^*)$$

The intuition behind Proposition 2 is shown by examining the composition of the equilibrium level

¹⁷This can be verified by evaluating $p(\bar{d}^*, \bar{e}^*)$ in light of the implication $f(\bar{e}^*, \bar{\theta}) > f(\underline{e}^*, \bar{\theta})$ from Proposition 1 and our assumption $f(e, \bar{\theta}) > f(e, \underline{\theta})$.

¹⁸This is true as long as $f_1(\underline{e}^*, \bar{\theta}) > f_1(\underline{e}^*, \underline{\theta})$, which holds by our assumption that a contender values elected office more than a technocrat does.

of policy discretion. Consider the equilibrium discretion choice from Proposition (1):

$$p(\bar{d}^*, \bar{e}^*) = r - f(\bar{e}^*, \bar{\theta}) + \underbrace{f(\underline{e}^*, \bar{\theta}) - f(\underline{e}^*, \underline{\theta})}_{\text{Information Rent}} \quad (4)$$

The key reason why the leader makes discriminating offers based on types is that the contender can extract more policy discretion from the leader if he exploits his information advantage. In order to protect against this, the leader tries to minimize the amount of discretion granted by extending discriminating offers. The leader exerts more reelection effort against the technocrat in order to make it less attractive for a contender to misreport. However, the leader needs to compensate the technocrat to ensure that he accepts the appointment, and in doing so, offers the technocrat greater policy discretion. Intuitively, this means that the technocrat is awarded more policy discretion as a function of the leader wanting to *deter contenders* and that this relationship holds independently of any personal characteristics that the technocrat may have, such as his policy preferences, ability, or expertise, and depends only on the technocrat being more interested in policy than holding elected office. In other words, technocrats are awarded greater policy discretion so as to dissuade contenders from participating in the first place.

Second, prior observable information about the candidate changes how much the leader needs to discriminate in her offers. The leader adjusts her discriminating offers such that any information rent that the candidate may enjoy, or the advantage for the candidate that arises from him knowing something the leader does not, is minimized. As long as the leader's own reelection value is sufficiently high, the leader will grant less discretion to candidates with a previous political career. Like above, this implies a negative relationship between candidates with political experience and policy discretion.

Finally, we ask how the above relationship changes when the leader faces greater threats to her reelection. Here we find that:

Proposition 3

As long as it is sufficiently likely that a candidate turns out to be a contender, the discriminating effect increases (decreases) in size as the leader faces an easier (harder) reelection.

$$\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi \partial e^*} < 0 \text{ if } \frac{\partial f_1(\underline{e}^*, \underline{\theta})}{\partial \Phi} < \frac{f_1(\underline{e}^*, \bar{\theta}) - f_1(\underline{e}^*, \underline{\theta})}{(1 - \Phi)^2}$$

Proposition 1 implies that as the leader becomes more certain that she faces a contender, she expends more effort towards reelection against a technocrat than she would under conditions of perfect information. Intuitively, the leader provides more incentives for the contender to tell the truth by making it more costly for him to pretend to be a technocrat. This implies there is an additional “discretion premium” awarded to the technocrat as a consequence of imperfect information and irrespective of the candidate’s other qualities such as preferences or ability. The intuition for Propositions 2 & 3 is similar. If the information provided by a past political career and subsequently the effort expended towards reelection effectively reduces the contender’s information rent, the leader grants less discretion to a candidate with a past political career. Yet, working in an opposite direction, the leader will limit paying this “discretion premium” as her reelection becomes more contested. The more vulnerable she is, the less it makes sense for her to deter contenders by rewarding technocrats.

Political Experience and Electoral Vulnerability

This section illustrates the main results from above graphically using specific functional forms.¹⁹ We show how the level of discretion offered to the candidates changes as: (1) whether or not the leader observes past political experience or not and (2) whether the leader’s reelection vulnerability increases or decreases.

¹⁹For simplicity, we assume linear expected value functions $f(e, \theta) = (1 - e)\theta$, $p(e, d) = ed$ and $o = eo$. We also assume a quadratic cost function for effort, $c(e) = e^2$. Further, we assume a positive linear relationship between the leader’s effort e and the electoral vote-margin, $v(e) = e$. Lastly, let $\{\bar{e}^*, \bar{d}^*\}$ $\{\underline{e}^*, \underline{d}^*\}$ be the leader’s equilibrium offers and \bar{d}_Φ^* , \underline{d}_Φ^* the change in discretion d offered to a technocrat and a contender due to observing that the nominee has past political experience, Φ .

First, given our assumptions, the leader always offers less discretion to the nominee after having observed that he has previous political experience. As shown in Figure 3, what this means in terms of our model is that d_{Φ}^* and \bar{d}_{Φ}^* are both negative. For the leader, observing a political career indicates that she is more likely to face a contender, so it is less important that she learn about the candidate's political ambitions by investing in screening. When facing a politically experienced candidate, the leader needs to threaten less reelection efforts in order to learn about the candidate's true ambitions. Along with not having to pay these costs for information, it also lowers the discretion payoff granted to both the contender and the technocrat. Furthermore, this result holds generally, as long as the candidate's outside option is more valuable than the technocrat's elected office value ($\underline{\theta} < r < \bar{\theta}$).

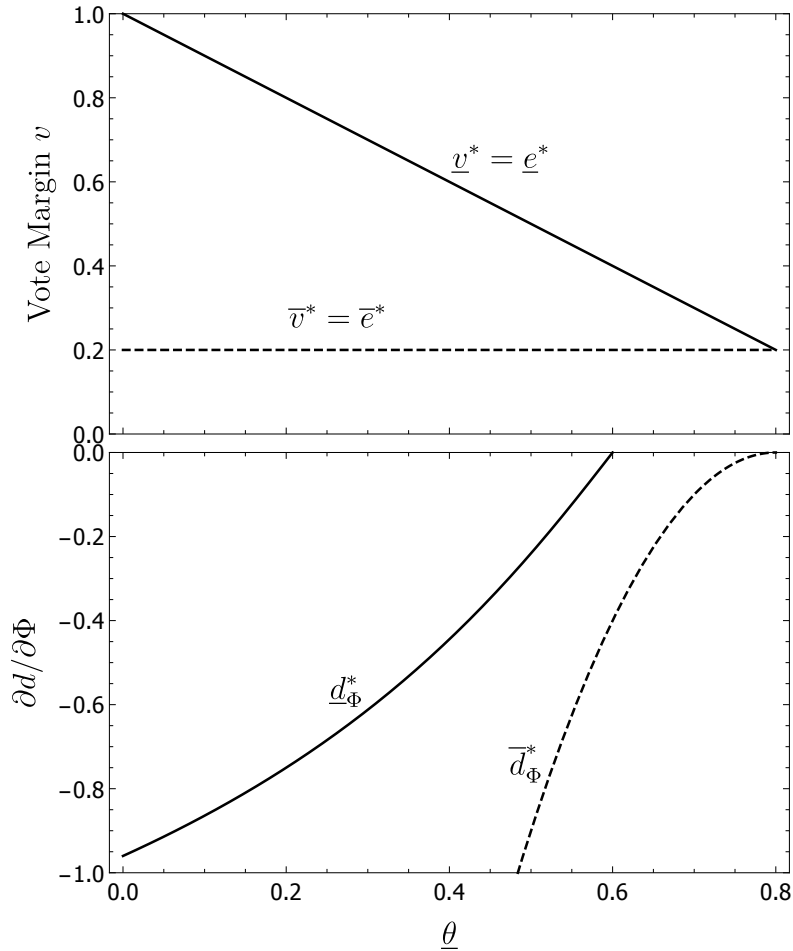
Second, the penalty for having a political career decreases as the leader faces greater electoral threats. As noted in Proposition (3), this attenuation effect is conditional on how any additional information affects the contender's information advantage. For example, if the electoral arena is becoming more competitive because the pool of candidates begins to pose a more serious electoral threat to the leader, even politically experienced candidates will receive higher offers of policy discretion from the leader.²⁰

Empirical Implications of the Model

Our model predicts a negative relationship between political experience and policy discretion. While this negative relationship is consistent with prior research, our mechanism suggests a new rationale for why this may be the case. According to previous theories, technocrats are awarded greater policy discretion either because their presumed policy biases for lower inflation help the government credibly commit to low inflation or because political parties in competitive elections want to tie the hands of future governments. Both of these theories suggest that independent central

²⁰This result generalizes to any parameter value of α , $\bar{\theta}$ and Φ . For the case that the candidate reports to be a technocrat (solid line), the effect is also negative so long as $\underline{\theta} < r < \bar{\theta}$.

Figure 3: The Effect of Political Experience on Discretion



Note: The figure shows equilibrium changes for the functional forms of f, p and o as shown in the appendix, assuming $r = 0.6, o = 1.2, \bar{\theta} = 0.8$, and $\Phi = 0.5$

banks will co-occur with the appointment of technocrats in politically competitive environments. This is because competitive environments are also those where incentives to hand-tie future governments is most pronounced. Alternatively, our model finds that in environments of low-electoral competition, politicians with appointment rights to the central bank can use technocratic appointments opportunistically so as to secure their own political power. Another way of saying this is that by granting technocrats even greater policy discretion than the leader would under conditions of perfect information, the leader effectively creates an entry barrier to political markets. This entry barrier works to block possible political challengers from entering either elected or appointed

office. In sum, technocratic appointees can be used by those already in power as a mechanism to secure their own politician survival in addition to solving commitment issues across elections and/or parties. Yet, the leader will pursue the above political market blocking strategy less the more electoral threatening the political arena. Therefore, our first empirical prediction is that:

H1 Imperfect Information: As the nominating politician's electoral insecurity increases, the level of policy discretion offered to candidates with political experience increases as well.

In order to assess whether or not our mechanism is at work, we also want to evaluate the perfect information story. In the perfect information story, technocrats get greater policy discretion because they are experts and have an advantage at choosing better monetary policy (as opposed to politicians, who have the same qualifications as the leader). Furthermore, the nominating official is more likely to appeal to outside expertise when political insecurity is higher. This is because she wants to tie the hands of any opposition party from using monetary policy opportunistically in the future. In order to evaluate whether or not the data supports this explanation instead, we also test the following hypothesis:

H2 Perfect Information: As the nominating politician's electoral insecurity increases, the level of policy discretion offered to candidates with policy expertise increases as well.

Data and Methodology

Post-communist countries represent an excellent sample to test the expected relationship between central bankers' backgrounds, electoral competition, and policy discretion. First, despite varying levels of wealth and economic conditions, all countries faced a need to undertake economic and political reforms around the same time (Frye 2010). This alone makes understanding the ways in which countries' central bank reform trajectories diverged worthwhile. Second, the paths that these countries took vary significantly over time and across countries (see also Johnson 2016). Some countries, such as Azerbaijan, Kazakhstan, Hungary, and Romania reformed in three steps, increasing their independence at each step. Not all countries show such a sustained upward trend,

however. Countries such as Belarus and Macedonia also rolled back their level of discretion. Furthermore, the level of changes also varies, with some countries implementing dramatic increases in their central bank independence, such as Lithuania and the Ukraine, when compared to other countries, such as Moldova and Albania.

We contribute a new dataset on monetary policy independence and biographical information of CBG career experience across time in 29 post-communist countries, between 1990 and 2012.²¹ This new dataset includes measures of policy discretion including a measure of monetary policy independence and constraints on government borrowing. It also includes newly compiled biographical information on all CBG appointments for those countries that were either Soviet republics, members of the Warsaw Pact, or held very close ties to the Soviet Union, such as Mongolia. To be consistent with previous literature, we follow the coding efforts of Hallerberg and Wehner (2017), who also code biographical information for political actors (CBGs, Prime Ministers, Presidents, and Finance Ministers), although these authors consider the biographies of actors in OECD countries only. To do our coding, we hired three research assistants with Russian and English language skills to compile information from online sources such as official central bank websites, individual CVs, biographies, and Wikipedia. We code whether the individual has ever held a political post in any post-communist government or legislature. In our dataset, being politically experienced in the early 1990s means that an individual held a position in the transition government/legislature, not the communist regime. As a result, this makes our key independent variable somewhat different from Hallerberg and Wehner (2017), however, we use the same coding rules as these authors for coding vocational experience. Finally, our data also includes important information about which nominating politician is eligible to make central bank appointments in the first place.

²¹We consider Czechoslovakia as a separate country. Plots of the CBI variable for each country are given in the Appendix.

Policy Discretion

Our main dependent variable is policy discretion. The aggregate CBI index commonly used in the literature is an average of four dimensions of *de jure* CBI including personnel, policy objectives, policy tools, and limitations on lending to the government. In the composite measure, these dimensions are weighted according to the judgment of the initial authors (Cukierman 1992). Rather than use the composite index, we consider those components most related to policy discretion and operationalize policy discretion two ways. First, we use the component “policy independence” in country j in year t , from the Cukierman (1992) measure, recently updated by Garriga (2016). This is the most direct test of our argument as it measures how much policy independence the central bank is awarded by the government. As a second measure of policy discretion, we also examine whether or not the central bank has legal limitations on lending to the national government, “limitations on lending” from the same index. The logic for this measure is that the greater the policy independence, the larger the legal limitations for lending to the government, and the more autonomous the central bank is from the government.²²

Career Experience

Our key explanatory variable is whether or not the appointed CBG has past *political experience* or not. We define political experience as having held a career as a party official, running in an election, or holding a political office via direct or indirect election, or holding an appointed office in one of the three branches of the government after 1990 or the first year of independence; this variable is coded 1 if yes to the above and 0 if no.²³

In addition, we also code whether or not the appointed CBG’s two significant vocational ex-

²²In order to examine the robustness of our results, we also use the composite CBI index rather than just the two components listed above. The full index ranges from 0 (completely dependent) to 1 (completely independent), with a sample mean of 0.64 and a standard error of 0.20. The main results show our findings with policy independence and limitations on lending and the index results are shown in the appendix, however, the results do not vary significantly.

²³Information about the CBGs past employment experience is not included in any measure of the CBI index, and therefore we are confident that these measures are independent from our main explanatory variables.

periences involved working in a international organization. As above, *IO experience* is coded 1 if the individual has experience in an IO and 0 if not. Importantly, these two attributes are not mutually exclusive. Approximately half of the individuals that held previous careers in politics also have vocational experience working in an IO (52%). Those that do match on these attributes, however, held office for a relatively short period of time. Only in 5% of country-years with political appointments does the CBG also have experience working in an IO.

To measure policy ability or expertise, we also code whether or not an individual holds a Ph.D. in Economics. This variable also represents a large share of those people in our sample (57 out of 162, or 35%).

Electoral Competition facing the Appointer

We focus our attention on those electoral contests where the politician has the appointment rights to the central bank. To determine this, we collected information from central bank laws, directories, websites and secondary sources to determine which leader gets to draft the initial nominee list for the central bank. Interestingly, we find significant variation in who gets to draft the initial list of nominee names across central banks in our sample. In 153 country-year cases, the initial appointment is made by parliament; in 393 country-year cases, the initial appointment is made by the president; and finally, in 43 country-year cases, the initial appointment is made by the prime minister. We drop 23 country-year cases in which the initial appointing government office is not clearly identifiable. These country-year cases include Georgia, where the suggestion for the CBG comes directly from the central bank board. We also drop all cases where the central bank law is not reformed and the country retains Soviet-era central bank governors.

We measure *electoral competition* facing the nominating official two ways. First, we proxy electoral competition using the margin of victory that the political candidate wins in the election. For legislative elections, we measure competition with seat margins, or the difference in the num-

ber of seats won by the first and second most successful parties.²⁴ We then transform the variable, taking $1 - \text{seatmargin}$ such that electoral competition is higher when the seat margin is smaller and electoral competition is lower when the seat margin is larger. For those cases where the president rather than the legislature determines the CBG appointment, we use the difference in the number of votes between the first and second candidate in the first round of the presidential elections. As above, we transform this variable $1 - \text{votemargin}$, such that a smaller vote margin is again associated with higher competition and a larger vote margin with lower competition.²⁵ The underlying data are from Coppedge et al. (2017), which aggregates election data from Europe and Asia (Nohlen and Stöver 2010; Nohlen, Grotz, and Hartmann 2001).

As a second indicator of political competition, we also measure the level of popular mobilization against the government before elections. The measure we use is the number of anti-government pre-election protests as reported in the British Broadcasting Corporation's Summary of World Broadcasts coded in the Cline Center Historical Phoenix Event Dataset (Althaus et al. 2017; Beaulieu 2014). More specifically, we count the reported number active protest, postures of force, coercion, breakdown of negotiations, assaults, and physical fights targeting government institutions or officials in a given year. For those years where the nominating official faced an election, we included only those protest events that happened before the election date.

Other Variables

We also include a number of other variables to account for possible confounding factors. In order to control for the level of financial development or trust in the central bank, we include a measure of *contract-intensive money* (CIM). CIM reflects the proportion of money that is held in the official banking sector derived from a measure of the money supply (M2) (Clague et al. 1999). One

²⁴We use the seat margins for the parliamentary elections rather than vote margins because of greater data availability. However, our results hold irrespective of whether or not we use seat margins or vote margins.

²⁵There are a few cases with the vote margin is larger than one in our dataset. This is due to cases where candidate B in the first round received less votes than candidate A, but in subsequent rounds, received more votes than candidate A.

interpretation is that CIM proxies the security of property rights (in this case, financial assets).

Previous literature finds that political institutions are essential to the proper functioning of CBI in democracies. As such, we also include a measure of *checks and balances* from the Database of Political Institutions (Beck et al. 2001). As in Keefer and Stasavage (2003), we expect the level of checks to be positively associated with higher levels of policy discretion.

The degree of urbanization may affect the level of prices and also the demand for independent economic institutions. Therefore, we include the share of the population living in urban areas, *urban population*, from the World Bank's World Development Indicators (WDI). Like the above measures, we also expect this variable to be positively associated with higher levels of CBI.

We include a measure of the country's growth rate from the WDI, which we expect matters for both the level of policy discretion as well as for the competitiveness of the election, *gdp per capita growth*.²⁶

Finally, there is an obvious upward trend in our CBI index variable over time. We include a *time* count variable. This variable starts at the beginning of our sample (1990) and goes up incrementally by 1 unit until the end of our sample (2012) (Marsh and Mikhaylov 2012).²⁷

Model Specification

In order to test our hypotheses, we estimate three models, with each model increasing in structure: a pooled model (1), a country fixed-effects model (2) and a country fixed-effects model with an

²⁶We also include EU membership and candidacy and Ilzetki, Reinhart, and Rogoff (2017)'s coarse measure of a country's exchange rate regime in robustness checks available in the Online Appendix. To preview our findings, we find no major differences across the models even when we account for these additional variables.

²⁷As another specification, we also subtracted the global mean level of CBI from the dependent variable and re-ran the analyses; the simple time trend seems to work more effectively at removing the trend, and so we report these and other robustness exercises in the supplementary appendix.

assumed AR(1) process (3).²⁸ Model (2), for example, is specified as:²⁹

$$y_{j,t} = \alpha + \beta_1 PE_{j,t} + \beta_2 EC_{j,t} + \beta_3 (PE_{j,t} * EC_{j,t}) + \beta'_x X_{j,t} + \theta_j + \epsilon_{j,t}$$

Empirical Results

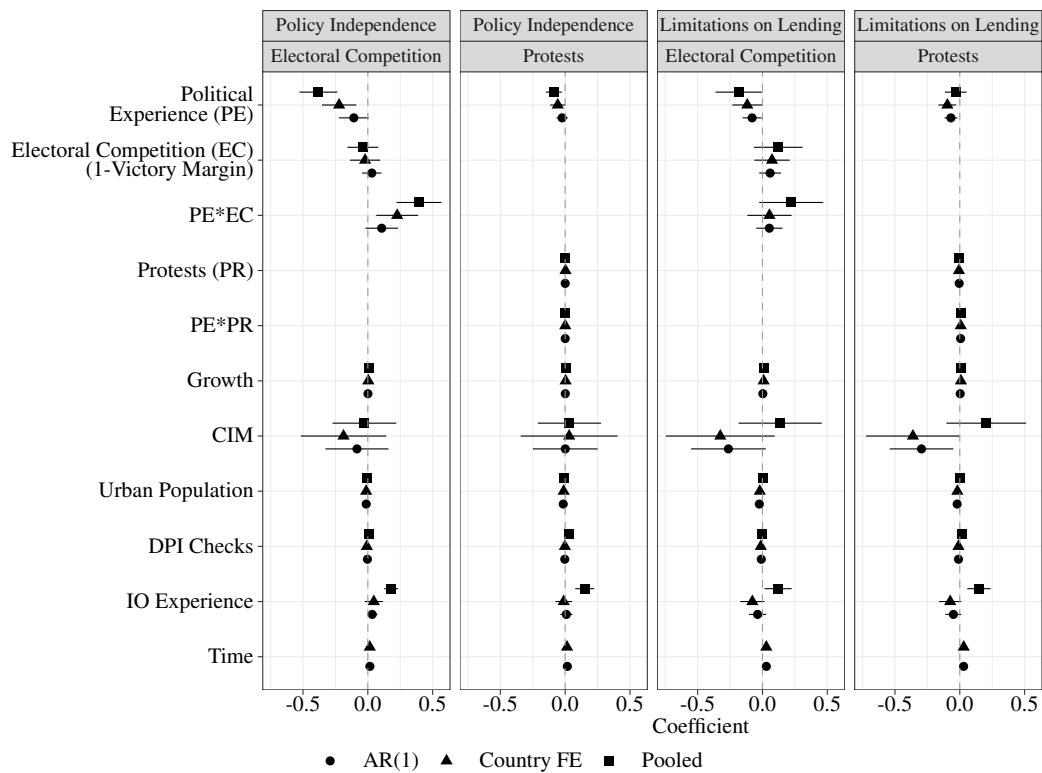
We present the results from our model specifications (1-3) using a coefficients' plot for ease of interpretation. As expected, we find a negative independent relationship between political experience and policy discretion, measured either by policy independence or limits on government lending. This implies that, conditional on the appointer being electorally secure, CBGs with political backgrounds get lower levels of discretion than those CBGs without political experience. Our other main variable, electoral competition, measured either by vote and/or seat margin or number of protests, however, demonstrates little independent effect, either statistically or substantively.

Rather than only consider the independent effects, our hypotheses consider the interaction between political experience and the strength of political competition facing the nominating politician. As reported in Figure 5, which shows the marginal effects, we find that CBGs with political experience are associated with higher levels of policy independence as political competition for the appointer's post increases. When we operationalize policy discretion as limitations on lending to the government, such a positive effect is less pronounced. Interestingly, however, we find the converse pattern when we measure electoral competition using protests against the government. Here we find that CBGs with political experience are only weakly positively associated with policy independence but the positive relationship is much stronger when we consider limitations

²⁸Model 3 addresses potential serial correlation of type AR(1) using a two-step Prais-Winsten feasible generalized least squares (FGLS) procedure with panel-specific autocorrelation coefficients. We estimate the model $y_{j,t} = \alpha + \beta_1 PE_{j,t} + \beta_2 EC_{j,t} + \beta_3 (PE_{j,t} * EC_{j,t}) + \beta'_x (X_{j,t}) + \theta_j + \nu_{j,t}$, with $\nu_{i,t} = \rho_i \nu_{i,t-1} + u_{i,t}$ assuming that $u_{i,t}$ is white noise.

²⁹The shares of missing values in our data range between 0 and 19%, which leads to the listwise deletion of 386 country-years. For our main analyses, we report the findings with missing data. In the appendix we report the models using imputed data 10 times using a prediction model featuring a wide array of predictors using the AMELIA II package (Honaker, King, Blackwell, et al. 2011). The results are consistent with the results of the main analysis.

Figure 4: Effects of Political Experience and Electoral Competition on Lending Limitations and Policy Independence

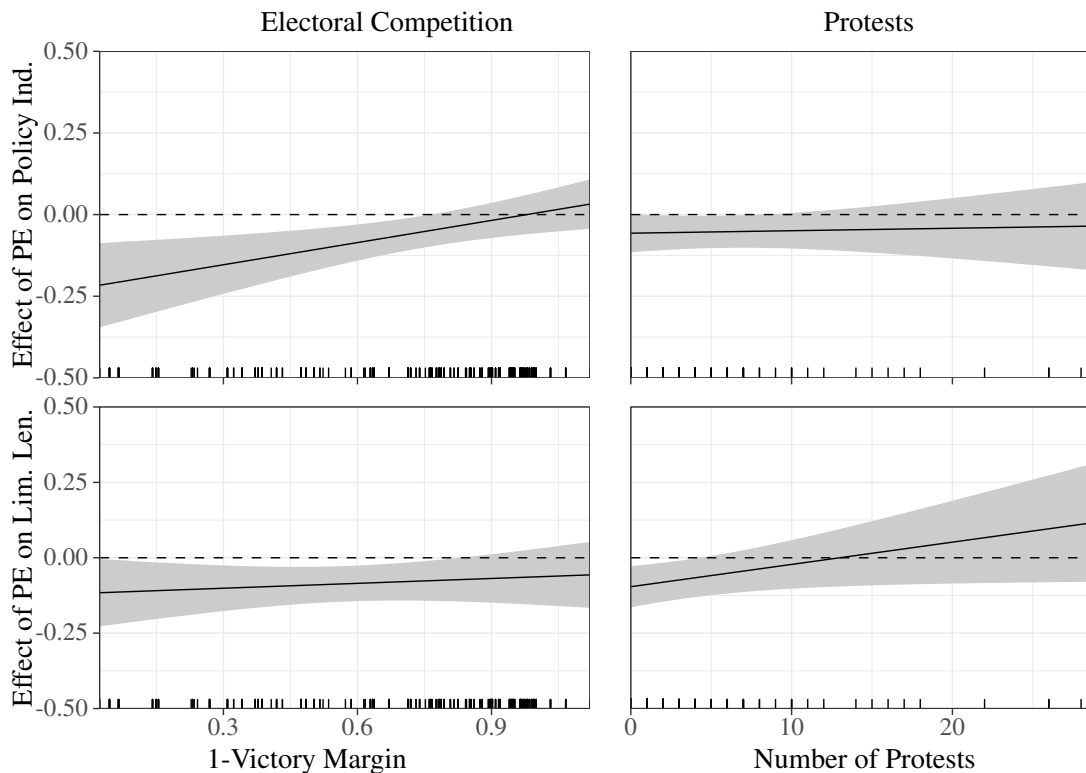


Note: The plot represent the model results depicted in the supplemental appendix. Columns (1) and (2) report coefficients from the models using the CBI index component "Limitations on Lending" as dependent variable, using "Electoral Competition" and "Protests" as independent variables. Columns (2) and (3) report the corresponding coefficients for the models using "Policy Independence" as dependent variable. We report heteroskedasticity robust standard errors except for the AR(1) model.

on government lending then it is when we consider policy independence.

In terms of our other variables, figure 5, shows that GDP growth is positively associated with policy discretion across all models, although its effects are not large. The CIM measure is positively associated with discretion until we include the time counter to account for the observed increasing trend in central bank independence over time. The time trend likely picks up over-time covariation in movements, such as an increase in the credibility of central banks over time. Our urban population variable is also not substantively important; neither is the democracy variable DPI checks. Similarly, another possible explanation is that career experience in international orga-

Figure 5: Marginal Effects of Political Experience on Lending Limitations and Policy Independence



Note: The plot reports the marginal effects from the country fixed-effects models. Rows represent the CBI components "Policy Independence" and "Limitations on Lending" as dependent variables and columns represent "Electoral Competition" and "Protests" as independent variables. The shaded areas show 95% confidence intervals using heteroscedasticity robust standard errors.

nizations (IOs) rather than electoral threats matters for policy discretion (Johnson 2016). While we find a positive relationship between IO experience and policy discretion in the pooled model, the effects are less clear once we account for country and time trends. Furthermore, our interaction is robust even when we include whether or not someone has worked in an IO suggesting that political rather than IO vocational experience matters for policy independence.

While the above results suggests some support for our theory, we also test the perfect information case as it could be that the above positive relationship also holds for experts as well. To do this, we replace CBG political experience with those CBGs with Economics PhDs. We then test whether or not we observe a similar upward slope as electoral competition rises as well. Re-

call that in contrast to the predictions made by our theory, according to the perfect information case, technocrats will receive higher levels of policy discretion because they are experts and have an advantage at choosing better monetary policy (as opposed to politicians, who have the same qualifications as the leader) and that we expect this premium to increase as electoral competition increases.

We present the results from our same model specifications (1-3) as before. Interestingly, we find little evidence of an independent relationship between having an Economics PhD and the level of policy discretion. Similarly our measures of electoral competition are not related to policy discretion in any independent way, as above.

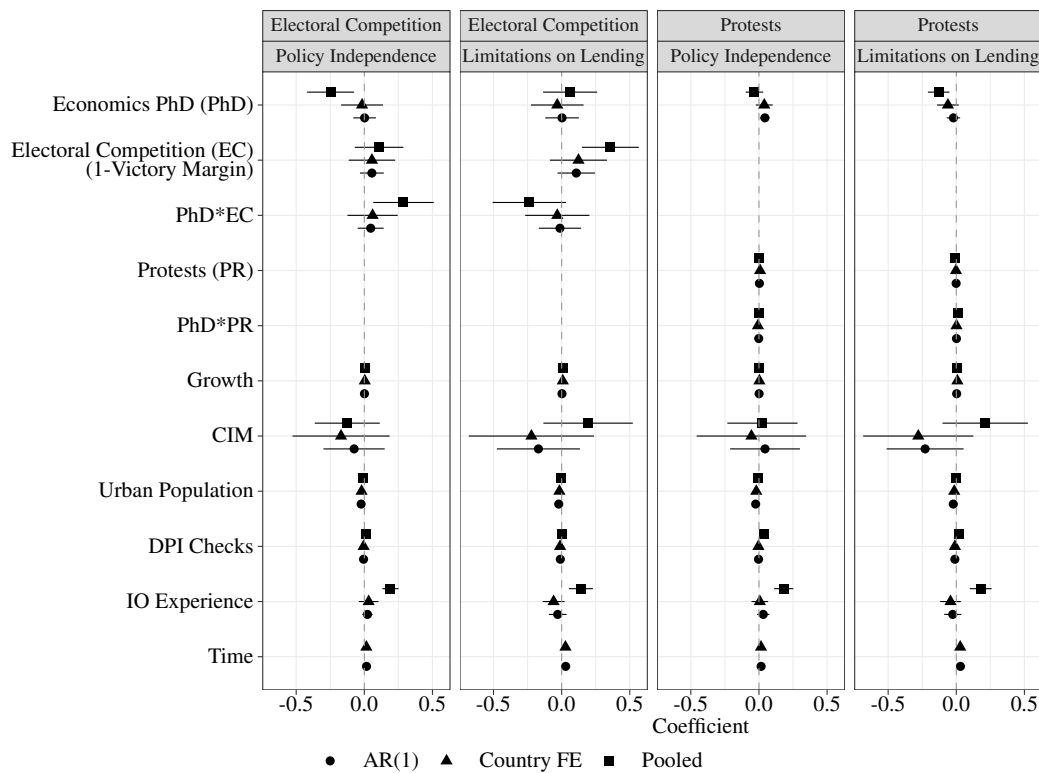
Our variable of interest is the interaction between expertise (proxied by having a PhD in Economics) and the strength of political competition facing the nominating official. As shown in Figure 7, we find that CBGs with more expertise do not get higher levels of policy discretion as political competition for the appointer's post increases. Interestingly, and unlike the political experience results reported above, we find null results irrespective of whether we measure electoral competition by vote/seat margin or by number of protests or whether we consider policy independence or limitations on government lending.

We find evidence that candidates with political experience are associated with *higher* levels of policy discretion as electoral competition facing the appointing politician rises. Furthermore, we find no evidence of such a relationship for those CBG with expertise, as measured by having a PhD in economics. This, coupled with the fact that we examine elections only for those nominating officials that directly hold appointment powers for the CBG, suggests that information screening may indeed play a role.

Alternative Explanations

We turn now to consider possible alternative explanations and examine whether we observe evidence consistent with these theories instead of ours. Rather than be associated with screening,

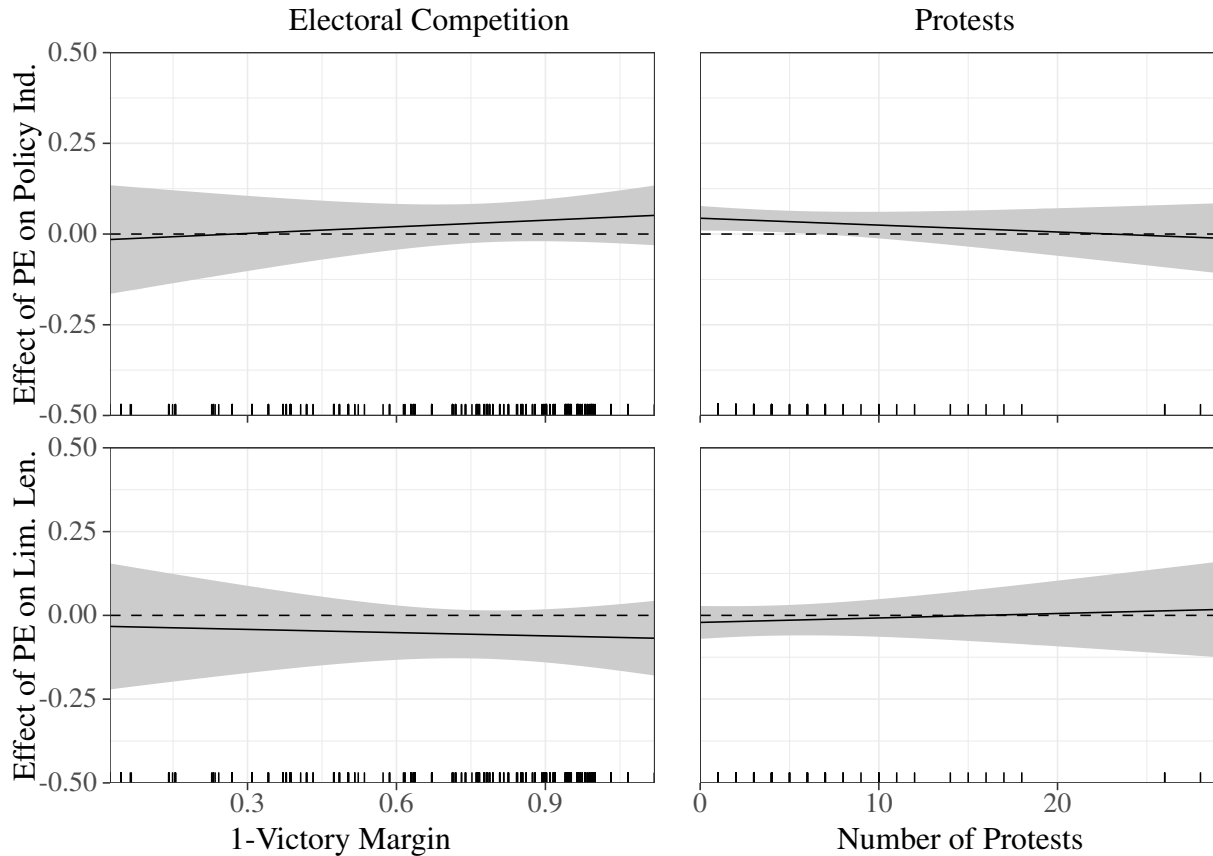
Figure 6: Effects of an Economics PhD and Electoral Competition on Lending Limitations and Policy Independence



Note: The plot represent the model results depicted in the supplemental appendix. Columns (1) and (2) report coefficients from the models using the CBI index component "Limitations on Lending" as dependent variable, using "Electoral Competition" and "Protests" as independent variables. Columns (2) and (3) report the corresponding coefficients for the models using "Policy Independence" as dependent variable. We report heteroskedasticity robust standard errors except for the AR(1) model.

appointments to the central bank may serve other functions. First, they may be a reward for party service, for example, as pre-retirement placements. This would mean that political experience is not indicative of the future political ambitions of a candidate, but would still be positively correlated with appointments, which might confound our interpretation. Second, the political leader might use the post of the central bank to co-opt strong electoral challengers. Political leaders may offer a position with considerable power (i.e., higher policy discretion) and strong electoral competition may incentivize the leader to do this more. As above, such an argument might also confound our interpretation. Common to these explanations, however, is an expectation about the sequence

Figure 7: Marginal Effect of the CB Governor holding an Economics PhD on CBI

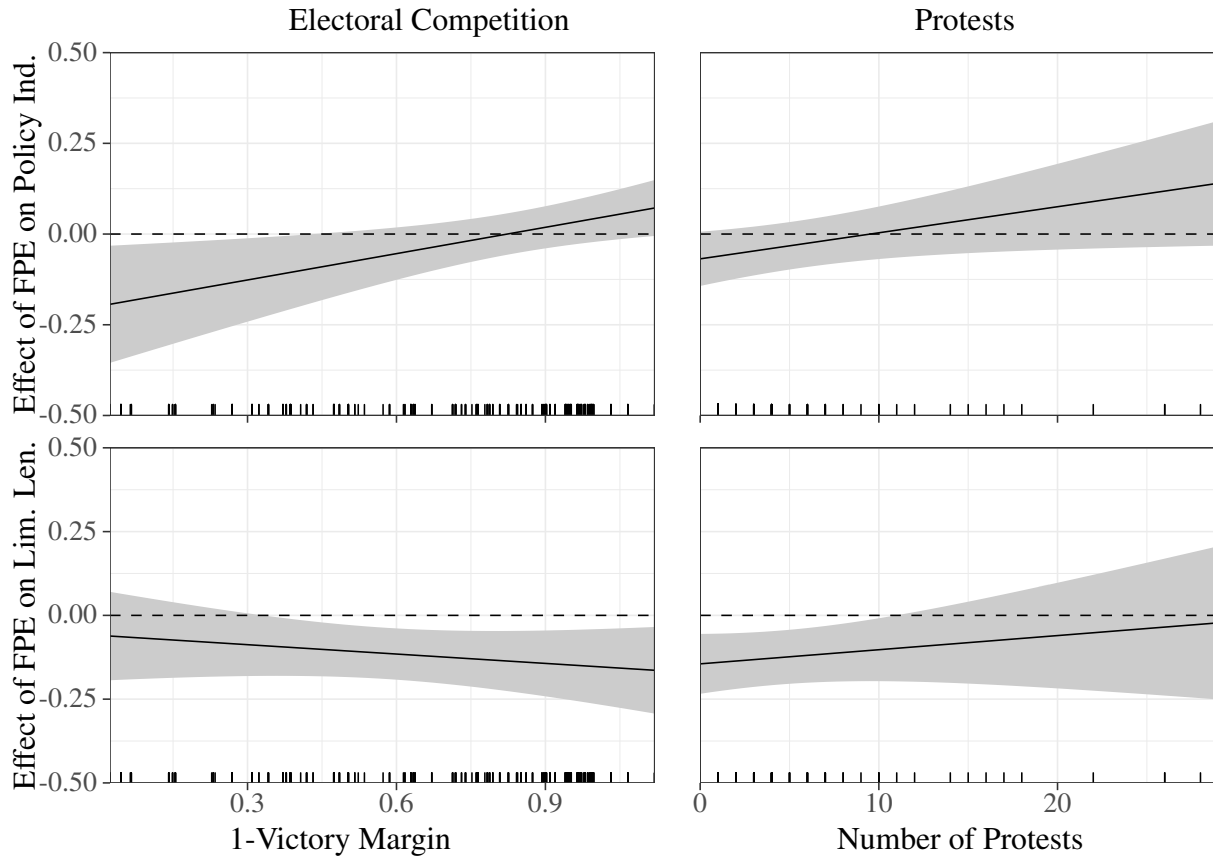


Note: The plot reports the results from the country fixed-effects models with the CBI components "Policy Independence" and "Limitations on Lending" as dependent variables and an indicator if the CB Governor holds a PhD in Economics as conditional independent variable. The shaded areas show 95% confidence intervals using heteroscedastic robust standard errors.

of political experience and holding the central bank governorship. According to these arguments, the candidate's political experience is gained *before* he is awarded the central bank governorship. If these theories are true, it then follows that we would observe the same positive interaction as above, but for only those CBGs with pre-existing political experience, before taking the helm of the central bank, and not otherwise.

To test this, we distinguish those candidates with political experience *before* and political experience *after* they became CBG. We then re-run the analyses on a sub-sample of CBG with political experience *after* they hold the CBG post. As shown in Figure 8, we find a similar positive rela-

Figure 8: Marginal Effect of Future Political Experience on CBI



Note: The plot reports the results from the country fixed-effects models with the CBI components "Policy Independence" and "Limitations on Lending" as dependent variables and an indicator if the CB governors held a political post after their appointment. The shaded areas show 95% confidence intervals using heteroscedastic robust standard errors.

relationship between political competition and levels of discretion awarded to the CBG even in this subsample. This lends further evidence to our argument that politicians with appointment powers to the central bank have incentives to appoint technocratic candidates to deter politically motivated candidates, however, their ability to do so is conditioned by the level of political competition they face: as political competition increases, it becomes less beneficial for the nominating official to invest in deterring politically minded candidates and is therefore more likely to award even politically ambitious candidates similar levels of discretion to that awarded to technocrats.

Conclusion

What conditions determine the granting of policy discretion to those at the helm of a country's central bank? Our theory demonstrates that politicians who are responsible for nominating central bank governors (CBG) may use technocratic appointments to dissuade politically motivated central bank candidates. We show that the success in doing so, however, crucially depends on the expected closeness of the race facing the nominating official. As either the overall quality of challengers increases or as elections become more competitive, the appointer's willingness to use discriminating offers to deter politically minded central bankers lessens. Our model therefore finds evidence of a previously unexplored relationship between central bank appointments and policy discretion, one that is conditioned by the level of electoral competition facing the nominating politician. We find that the level of discretion granted to candidates with political backgrounds increases as electoral victories narrow. Another contribution is the development of a new and important dataset that looks at the career experience of CBGs outside of OECD countries.

While our argument focuses on those conditions that determine discretion given to CBGs as a consequence of election concerns facing the appointer, outstanding questions remain. Future research might explore the consequences of an increasing number of CBGs with political experience on a battery of macroeconomic outcomes that independence is expected to matter for, such as inflation, asset prices, and growth rates. Similarly, more general claims about bureaucratic politics arise from our results. While some suggest that non-elected institutions need be more accountable to voters, it is worth investigating whether or not those countries with more politically experienced officials are indeed more accountable to citizens. One alternative and more pessimistic argument, which our evidence points to, is that with an increase in political competition, the marginal efficiency of investing resources to keep politically minded candidates out of independent arms of the government declines for those politicians appointing them. Our argument, therefore, points to challenges in the development of a country's bureaucracy: on the one hand, new countries must

select and promote a new generation of political leaders in order to effectively manage the country. On the other hand, the coupling of independent agencies staffed with actors with strong political motivations may bring to the forefront inter-elite conflict.

Our paper contributes a deeper understanding of the interaction between strategies aimed at electoral survival and those aimed at delegation. While previous research has centered on the need for nominating officials to signal to investors, domestic publics, and opposition parties that they are credibly committing to a low-inflation policy, our findings support recent evidence that calculations by elites about their survivability matters and that this is especially true in environments of heightened political competition. Our paper, therefore, paints a more nuanced picture of the calculations that politicians make in handing over power.

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Supplemental Appendix

Proofs

The leader's problem can be written as

$$\begin{aligned} & \max_{\{\bar{d}, \bar{e}\}, \{\underline{d}, \underline{e}\}} \Phi(o(\bar{e}) - p(\bar{e}, \bar{d}) - c(\bar{e})) + (1 - \Phi)(o(\underline{e}) - p(\underline{e}, \underline{d}) - c(\underline{e})) \\ & \text{subject to} \end{aligned}$$

$$f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \geq r \quad (\bar{P})$$

$$f(\underline{e}, \underline{\theta}) + p(\underline{e}, \underline{d}) \geq r \quad (\underline{P})$$

$$f(\underline{e}, \underline{\theta}) + p(\underline{e}, \underline{d}) \geq f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \quad (\underline{IC})$$

$$f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \geq f(\underline{e}, \underline{\theta}) + p(\underline{e}, \underline{d}) \quad (\bar{IC})$$

Further we remind the reader, that we assume that $f(e, \bar{\theta}) > f(e, \underline{\theta})$, $\frac{\partial f}{\partial e} = f_1 < 0$ and $\frac{\partial f}{\partial^2 e} \geq 0$ as well as $\frac{\partial p}{\partial e} > 0$, $\frac{\partial p}{\partial d} > 0$, $o(e) > c(e) + f(e, \bar{\theta})$, $\frac{\partial o(e)}{\partial e} = o_1 > 0$ and $\frac{\partial c(e)}{\partial e} = c_1 > 0$. As shown in the discussion of Equation (3) in the text \bar{P} holds by implication of \bar{IC} and \underline{P} . Further, because $f(e, \bar{\theta}) > f(e, \underline{\theta})$, \underline{P} and \bar{IC} are always binding. Therefore, the following problem is an equivalent problem above as long as its solution satisfies \underline{IC} . First, present the solution to the problem and then verify that it satisfies \underline{IC} .

$$\begin{aligned} & \max_{\bar{e} \geq 0, \underline{e} \geq 0} \Phi(o(\bar{e}) - p(\bar{e}, \bar{d}) - c(\bar{e})) + (1 - \Phi)(o(\underline{e}) - p(\underline{e}, \underline{d}) - c(\underline{e})) \\ & \text{subject to} \end{aligned}$$

$$f(\underline{e}, \underline{\theta}) + p(\underline{e}, \underline{d}) = r \quad (\underline{P})$$

$$f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) = f(\bar{e}, \bar{\theta}) + p(\bar{e}, \bar{d}) \quad (\bar{IC})$$

Proposition 1

In equilibrium, the leader's offer, e^* , d^* , must satisfy

$$\begin{aligned} f_1(\bar{e}^*, \bar{\theta}) &= c_1(\bar{e}^*) - o_1(\bar{e}^*) & p(\bar{d}^*, \bar{e}^*) &= r - f(\bar{e}^*, \bar{\theta}) \\ f_1(\underline{e}^*, \underline{\theta}) &= c_1(\underline{e}^*) - o_1(\underline{e}^*) & &+ f(\underline{e}^*, \bar{\theta}) - f(\underline{e}^*, \underline{\theta}) \\ &+ \frac{\Phi}{1 - \Phi}(f_1(\underline{e}^*, \bar{\theta}) - f_1(\underline{e}^*, \underline{\theta})) & p(\underline{d}^*, \underline{e}^*) &= r - f(\underline{e}^*, \underline{\theta}) \end{aligned}$$

By substituting the constraints in the objective function and rewriting the problem we get

$$\max_{\bar{e} \geq 0, \underline{e} \geq 0} o(\underline{e}) - c(\underline{e}) - r - f(\underline{e}, \underline{\theta}) + \frac{\Phi}{1 - \Phi}(o(\bar{e}) - c(\bar{e}) - r - f(\bar{e}, \bar{\theta})) - \frac{\Phi}{1 - \Phi}(f(\underline{e}, \bar{\theta}) - f(\underline{e}, \underline{\theta}))$$

Assuming that $S(e, \theta, \bar{\theta}) = o(\underline{e}) - c(\underline{e}) - r - \frac{\Phi}{1-\Phi}(f(\underline{e}, \bar{\theta}) - f(\underline{e}, \underline{\theta}))$ is strictly concave with regard to e , the Kuhn-Tucker conditions are a sufficient condition for a global maximum. The Lagrangian is $L(\underline{e}, \bar{e}, \lambda_1, \lambda_2) = o(\underline{e}) - c(\underline{e}) - r - f(\underline{e}, \underline{\theta}) + \frac{\Phi}{1-\Phi}(o(\bar{e}) - c(\bar{e}) - r - f(\bar{e}, \bar{\theta})) - \frac{\Phi}{1-\Phi}(f(\underline{e}, \bar{\theta}) - f(\underline{e}, \underline{\theta})) + \lambda_1 \underline{e} + \lambda_2 \bar{e}$. A critical point must thus satisfy

$$\begin{aligned} o_1(\underline{e}) + f_1(\underline{e}, \underline{\theta}) - c_1(\underline{e}) - \frac{\Phi}{1-\Phi}(f_1(\underline{e}, \bar{\theta}) - f_1(\underline{e}, \underline{\theta})) + \lambda_1 &= 0 \\ \frac{\Phi}{1-\Phi}(o_1(\bar{e}) + f_1(\bar{e}, \bar{\theta}) - c_1(\bar{e})) + \lambda_2 &= 0 \\ \underline{e}, \bar{e}, \lambda_1, \lambda_2 \geq 0, \lambda_1 \underline{e} = \lambda_2 \bar{e} &= 0 \end{aligned}$$

If $\bar{e} = 0$ then $o_1(0) + f_1(0, \bar{\theta}) - c_1(0) \leq 0$ which would contradict $\frac{\partial S}{\partial e} > 0$ for $e = 0$. Thus, $\bar{e} > 0$ which implies $\lambda_2 = 0$ and $o_1(\bar{e}) + f_1(\bar{e}, \bar{\theta}) - c_1(\bar{e}) = 0$. Similarly, if $\underline{e} = 0$ then $o_1(0) + f_1(0, \underline{\theta}) - c_1(0) - \frac{\Phi}{1-\Phi}(f_1(0, \bar{\theta}) - f_1(0, \underline{\theta})) \leq 0$ which would contradict $\frac{\partial S}{\partial e} > 0$ for $e = 0$. Thus, $\underline{e} > 0$ which implies $\lambda_1 = 0$ and $o_1(\underline{e}) + f_1(\underline{e}, \underline{\theta}) - c_1(\underline{e}) - \frac{\Phi}{1-\Phi}(f_1(\underline{e}, \bar{\theta}) - f_1(\underline{e}, \underline{\theta})) = 0$.

Solving these two conditions for the unique global maximum $(\bar{e}^*, \bar{\theta}^*)$ and $(\underline{e}^*, \underline{\theta}^*)$ yields

$$\begin{aligned} f_1(\bar{e}^*, \bar{\theta}) &= c_1(\bar{e}^*) - o_1(\bar{e}^*) \\ f_1(\underline{e}^*, \underline{\theta}) &= c_1(\underline{e}^*) - o_1(\underline{e}^*) + \frac{\Phi}{1-\Phi}(f_1(\underline{e}^*, \bar{\theta}) - f_1(\underline{e}^*, \underline{\theta})) \\ p(\bar{d}^*, \bar{e}^*) &= r - f(\bar{e}^*, \bar{\theta}) + f(\underline{e}^*, \bar{\theta}) - f(\underline{e}^*, \underline{\theta}) \\ p(\underline{d}^*, \underline{e}^*) &= r - f(\underline{e}^*, \underline{\theta}) \end{aligned}$$

Lastly, we must show that the above solution satisfies IC. Together, IC and \overline{IC} implies that the solution must satisfy

$$f(\bar{e}, \bar{\theta}) - f(\underline{e}, \bar{\theta}) \geq p(\underline{e}, \underline{d}) - p(\bar{e}, \bar{d}) \geq f(\bar{e}, \underline{\theta}) - f(\underline{e}, \underline{\theta})$$

which implies that if $\underline{e}^* \geq \bar{e}^*$ the solution satisfies IC.

Assume $\bar{e}^* > \underline{e}^*$, then

$$\begin{aligned} f_1(\underline{e}^*, \underline{\theta}) &= c_1(\underline{e}^*) - o_1(\underline{e}^*) + \frac{\Phi}{1-\Phi}(f_1(\underline{e}^*, \bar{\theta}) - f_1(\underline{e}^*, \underline{\theta})) \\ &> c_1(\underline{e}^*) - o_1(\underline{e}^*) \geq c_1(\bar{e}^*) - o_1(\bar{e}^*) = f_1(\bar{e}^*, \bar{\theta}) \end{aligned}$$

which implies $\bar{e}^* \geq \underline{e}^*$ which contradicts our initial assumption. Thus $\bar{e}^* \geq \underline{e}^*$ must be true and our solution satisfies IC. \square

Proposition 2

If the leader's office value is sufficiently high, she offers less discretion to a candidate with political experience.

$$\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi} < 0 \text{ if } o(e^*) > 2 \frac{\partial f(e^*, \bar{\theta})}{\partial \Phi} - f(e^*, \bar{\theta}) - c(e^*)$$

From Proposition 1 we have $\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi} = \frac{\partial f(e^*, \bar{\theta})}{\partial \Phi} - \frac{\partial f(e^*, \theta)}{\partial \Phi}$. Thus, $\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi} < 0$ under the condition

$$\frac{\partial f(e^*, \theta)}{\partial \Phi} > \frac{\partial f(e^*, \bar{\theta})}{\partial \Phi} \quad (1)$$

which after substitution simplifies to

$$\Phi > \frac{\partial f(e^*, \bar{\theta})}{\partial \Phi} - \frac{f(e^*, \bar{\theta}) + o(e^*) - c(e^*)}{\frac{\partial f(e^*, \bar{\theta})}{\partial \Phi}}$$

Since $\Phi > 0$, a sufficient condition for (1) to hold is $o(e^*) > 2 \frac{\partial f(e^*, \bar{\theta})}{\partial \Phi} - f(e^*, \bar{\theta}) - c(e^*)$. \square

Proposition 3

As long as it is sufficiently likely that a candidate turns out to be a contender, the discriminating effect decreases in size as the leader exerts more effort towards campaigning.

$$\frac{\partial p(\bar{e}^*, \bar{d}^*)}{\partial \Phi \partial e^*} < 0 \text{ if } \frac{\partial f_1(e^*, \theta)}{\partial \Phi} < \frac{f_1(e^*, \bar{\theta}) - f_1(e^*, \theta)}{(1 - \Phi)^2}$$

Taking the second derivative of $p(e^*, \theta)$ with regard to Φ and e^* we have

$$\frac{\partial p(e^*, \theta)}{\partial \Phi \partial e^*} = \frac{\partial f_1(e^*, \bar{\theta})}{\partial \Phi} - \frac{\partial f_1(e^*, \theta)}{\partial \Phi}$$

which after substitution simplifies to

$$\frac{\partial p(e^*, \theta)}{\partial \Phi \partial e^*} = \frac{o_1(e^*) - c_1(e^*) + f_1(e^*, \theta) - (1 - \Phi)\Phi \frac{\partial f_1(e^*, \theta)}{\partial \Phi}}{\Phi^2}$$

so $\frac{\partial p(e^*, \theta)}{\partial \Phi \partial e^*} < 0$ under the condition

$$\frac{\partial f_1(e^*, \theta)}{\partial \Phi} < \frac{f_1(e^*, \bar{\theta}) - f_1(e^*, \theta)}{(1 - \Phi)^2}$$

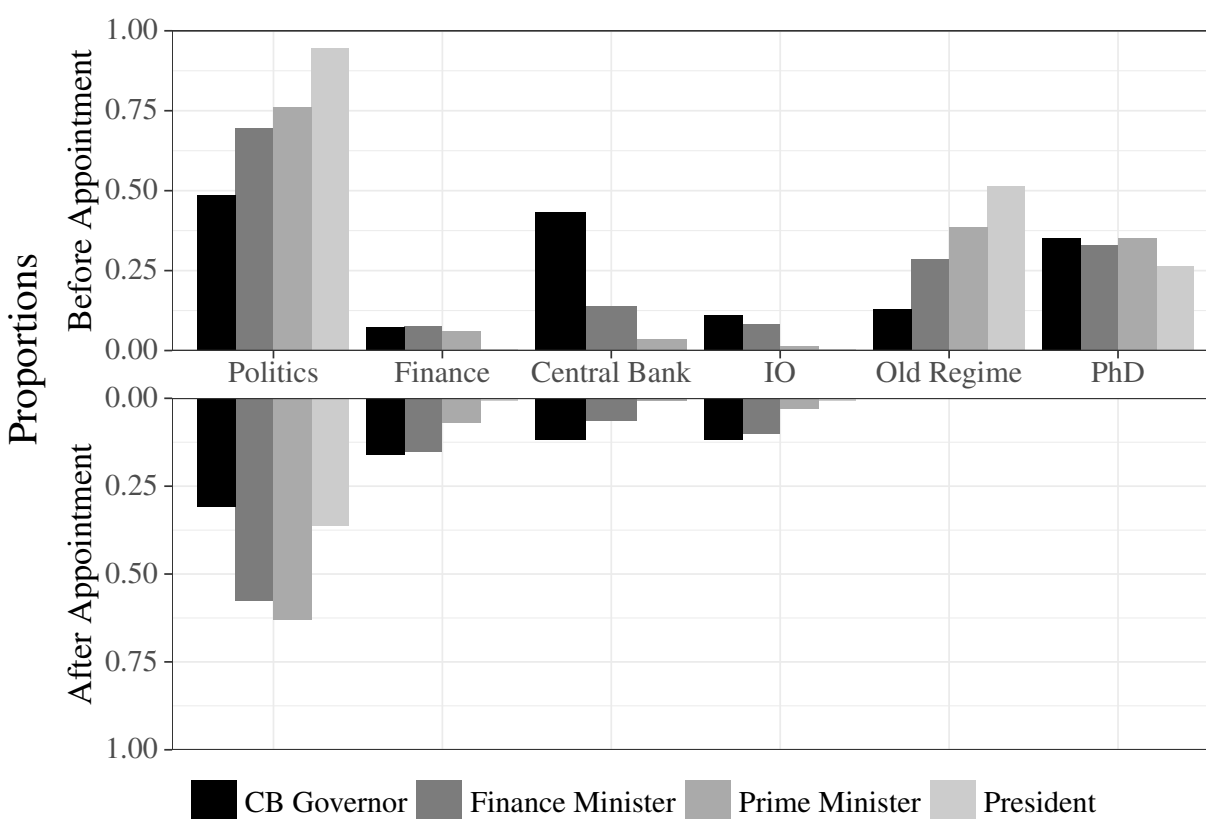
\square

Data and Sample Construction

We first collected the names of all the CBG's appointed during this period, using information from two periodicals: the Central Bank Directory (Pringle, 1994) and the Annual Reports of The World's Central Banks (Joint Bank-Fund Library, 1984). Unfortunately, we do not have a list of all possible individuals considered for the appointment, only those that are actually appointed. For those cases where there was mistakes in the periodicals, we went with the information on the CB's official website and cross-checked our names with other scholars working on this topic.

Figure 1 illustrates the variety of professional experience of post-communist leaders across our sample: CBGs, Finance Ministers, Prime Ministers, and Presidents, both before and after their appointments to the country's central bank. In the case of CBGs, we see that while many CBGs come directly from Ph.D. programs, still others come from the political system. After leaving the central bank, in their post-governor appointments, a large number of CBGs also move into political careers as well. We also see that many individuals that held positions as Finance Ministers and Prime Ministers also held posts working in central banks.

Figure 1: Careers of Leaders Before and After Appointment



Additional Empirical Tests

Table 1: Effects of Political Appointments and Electoral Competition on CBI and Components

	CBI																		
	Non-Imputed				Imputed				Non-Imputed				Imputed				Limitations on Lending		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Political Experience (PE)	-0.171 (-0.280,-0.061)	-0.105 (-0.182,-0.028)	-0.065 (-0.121,-0.008)	-0.103 (-0.206,0.001)	-0.103 (-0.145,0.018)	-0.064 (-0.104,0.012)	-0.046 (-0.148,0.051)	-0.049 (-0.160,-0.048)	-0.104 (-0.148,0.051)	-0.060 (-0.120,0.071)	-0.024 (-0.105,0.032)	-0.037 (-0.055,0.030)	-0.013 (-0.527,-0.235)	-0.222 (-0.354,-0.089)	-0.108 (-0.222,0.006)	-0.258 (-0.438,-0.078)	-0.172 (-0.326,-0.019)	-0.070 (-0.142,0.003)	
Electoral Competition (EC)	0.102 (-0.001,0.206)	0.059 (-0.025,0.143)	0.043 (-0.012,0.098)	0.158 (0.056,0.280)	0.094 (-0.010,0.199)	0.025 (-0.047,0.096)	0.110 (-0.003,0.221)	0.065 (-0.006,0.124)	0.030 (-0.008,0.068)	0.113 (-0.029,0.255)	0.089 (0.014,0.164)	0.040 (-0.001,0.082)	-0.039 (-0.158,0.079)	-0.021 (-0.138,0.096)	0.031 (-0.044,0.105)	0.116 (-0.105,0.337)	-0.007 (-0.170,0.157)	0.020 (-0.075,0.114)	
PE*EC	0.189 (0.046,0.331)	0.060 (-0.050,0.169)	0.051 (-0.021,0.123)	0.111 (-0.055,0.277)	0.013 (-0.109,0.134)	0.041 (-0.038,0.119)	0.037 (-0.090,0.165)	0.063 (-0.013,0.139)	0.049 (-0.008,0.105)	0.010 (-0.145,0.164)	-0.015 (-0.107,0.077)	-0.005 (-0.062,0.053)	0.395 (0.221,0.568)	0.226 (0.065,0.388)	0.107 (-0.019,0.233)	0.288 (0.052,0.524)	0.186 (-0.006,0.379)	0.067 (-0.038,0.173)	
Growth	0.007 (0.002,0.012)	0.003 (0.003,0.009)	0.002 (-0.0002,0.004)	0.006 (0.003,0.010)	0.001 (-0.001,0.003)	-0.001 (-0.001,0.001)	0.004 (0.001,0.008)	0.002 (0.0003,0.004)	0.004 (-0.001,0.002)	0.003 (0.0002,0.006)	0.004 (-0.001,0.002)	-0.002 (-0.003,0.019)	0.005 (0.0003,0.010)	0.004 (0.0001,0.007)	0.001 (-0.001,0.003)	0.007 (0.003,0.011)	0.002 (-0.001,0.005)	0.001 (-0.001,0.005)	
IO Experience	0.105 (0.047,0.162)	-0.038 (-0.094,0.017)	-0.012 (-0.052,0.029)	0.070 (-0.003,0.140)	-0.033 (-0.081,0.014)	-0.017 (-0.058,0.023)	0.069 (-0.035,0.154)	-0.033 (-0.082,0.015)	0.011 (-0.018,0.040)	0.017 (-0.118,0.152)	-0.050 (-0.094,-0.006)	-0.010 (-0.039,0.019)	0.180 (0.126,0.235)	0.046 (-0.024,0.116)	0.034 (-0.006,0.074)	0.038 (-0.070,0.146)	-0.010 (-0.084,0.064)	0.005 (-0.048,0.058)	
Urban Population	-0.001 (-0.003,0.002)	-0.016 (-0.025,-0.006)	-0.017 (-0.024,-0.010)	-0.002 (-0.004,0.003)	-0.017 (-0.027,-0.006)	-0.012 (-0.018,-0.007)	-0.002 (-0.004,0.002)	-0.010 (-0.017,-0.003)	-0.007 (-0.012,-0.002)	-0.004 (-0.004,0.003)	-0.006 (-0.015,0.004)	-0.002 (-0.010,0.006)	-0.007 (-0.009,-0.004)	-0.013 (-0.025,-0.001)	-0.013 (-0.021,-0.004)	-0.004 (-0.008,-0.00000)	-0.011 (-0.030,0.008)	-0.009 (-0.023,0.005)	
CIM	0.106 (-0.100,0.313)	-0.228 (-0.305,0.049)	-0.119 (-0.330,0.091)	0.075 (-0.141,0.291)	-0.161 (-0.385,0.062)	-0.110 (-0.238,0.018)	0.052 (-0.112,0.215)	-0.158 (-0.341,0.025)	0.009 (-0.125,0.143)	0.009 (-0.125,0.143)	-0.085 (-0.241,0.071)	-0.036 (-0.131,0.060)	-0.026 (-0.272,0.219)	-0.188 (-0.517,0.141)	-0.138 (-0.461,0.185)	-0.118 (-0.461,0.185)	-0.007 (-0.017,0.031)	0.005 (-0.006,0.015)	
DPI Checks	-0.001 (-0.023,0.022)	-0.010 (-0.028,0.009)	-0.006 (-0.018,0.006)	0.008 (-0.017,0.033)	0.004 (-0.015,0.022)	0.001 (-0.010,0.012)	0.009 (-0.010,0.028)	-0.009 (-0.029,0.010)	0.012 (-0.016,0.004)	0.012 (-0.010,0.035)	-0.005 (-0.026,0.015)	-0.001 (-0.009,0.007)	0.006 (-0.018,0.030)	-0.008 (-0.030,0.015)	-0.003 (-0.016,0.010)	0.022 (-0.009,0.053)	0.007 (0.012,0.023)	0.019 (0.014,0.023)	
Time Trend	0.532 (0.435,0.628)	1.739 (1.220,2.257)	1.685 (1.289,2.081)	0.457 (0.316,0.599)	1.668 (1.055,2.282)	1.392 (1.025,1.759)	0.638 (0.549,0.728)	1.269 (0.810,1.728)	0.955 (0.669,1.242)	0.586 (0.463,0.709)	0.965 (0.412,1.519)	0.698 (0.224,1.173)	1.186 (1.064,1.308)	1.770 (1.063,2.478)	1.547 (1.051,2.042)	0.903 (0.663,1.144)	1.456 (0.295,2.617)	1.294 (0.447,2.142)	
Country Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	
R ²	0.187	0.66	0.66	0.268	0.658	0.771	0.127	0.667	0.133	0.771	0.615	0.891	0.308	0.667	0.258	0.639	0.678		
SE Type	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	Newey-West	OLS	Newey-West	OLS	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	OLS	
Error Correction	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	
Time Trend	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	
Observations	373	373	373	612	612	612	373	373	612	612	612	612	373	373	373	612	612	612	

Note: Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 2: Effects of Political Appointments and Pre-Electoral Protest on CBI and Components

	Non-Imputed			Imputed			CBI			Policy Independence			Imputed			Non-Imputed			Limitations on Lending			Imputed		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)						
Political Experience (PE)	-0.008 (-0.092,0.015)	-0.075 (-0.118,-0.033)	-0.045 (-0.077,-0.012)	-0.031 (-0.099,0.038)	-0.056 (-0.101,-0.012)	-0.023 (-0.050,0.005)	-0.027 (-0.075,0.020)	-0.068 (-0.092,-0.044)	-0.031 (-0.055,-0.008)	-0.014 (-0.074,0.046)	-0.046 (-0.077,-0.015)	-0.015 (-0.035,0.005)	-0.088 (-0.149,-0.026)	-0.057 (-0.115,0.001)	-0.024 (-0.066,0.019)	-0.067 (-0.151,0.017)	-0.017 (-0.122,0.028)	-0.027 (-0.072,0.019)						
Protests (PR)	-0.003 (-0.010,0.004)	-0.003 (-0.006,0.001)	-0.002 (-0.005,0.001)	-0.002 (-0.010,0.007)	-0.001 (-0.007,0.005)	-0.001 (-0.006,0.005)	-0.003 (-0.007,0.002)	-0.004 (-0.002,0.001)	-0.001 (-0.001,0.001)	-0.001 (-0.007,0.005)	0.001 (-0.002,0.004)	0.001 (-0.001,0.002)	-0.004 (-0.011,0.003)	0.003 (-0.001,0.006)	0.004 (-0.002,0.003)	-0.001 (-0.012,0.010)	0.004 (-0.002,0.010)	0.002 (-0.002,0.005)						
PE*PR	0.003 (-0.005,0.011)	0.005 (0.001,0.009)	0.004 (0.0003,0.007)	0.002 (-0.007,0.011)	0.002 (-0.004,0.008)	-0.005 (-0.005,0.009)	-0.001 (-0.006,0.004)	0.003 (0.0001,0.006)	0.001 (-0.0003,0.003)	-0.003 (-0.009,0.004)	0.004 (-0.003,0.004)	-0.002 (-0.002,0.002)	0.002 (-0.006,0.010)	0.001 (-0.005,0.006)	0.004 (-0.003,0.003)	0.001 (-0.011,0.013)	0.001 (-0.009,0.006)	-0.001 (-0.005,0.004)						
Growth	0.006 (0.001,0.011)	0.006 (0.003,0.009)	0.002 (0.0003,0.004)	0.006 (0.003,0.010)	0.001 (-0.001,0.003)	0.002 (-0.001,0.002)	0.004 (0.001,0.007)	0.003 (0.0004,0.005)	0.001 (-0.001,0.002)	0.002 (0.0001,0.005)	0.004 (-0.002,0.002)	-0.002 (-0.001,0.001)	0.004 (-0.001,0.009)	0.003 (-0.0002,0.007)	0.001 (-0.001,0.003)	0.007 (0.003,0.011)	0.002 (-0.001,0.006)	0.001 (-0.001,0.003)						
IO Experience	0.119 (0.065,0.173)	-0.047 (-0.099,0.006)	-0.015 (-0.022,-0.007)	0.084 (0.003,0.165)	-0.023 (-0.070,0.025)	-0.014 (-0.055,0.026)	0.047 (-0.044,0.138)	-0.057 (-0.102,-0.012)	0.001 (-0.028,0.030)	0.026 (-0.122,0.174)	-0.043 (-0.088,0.003)	-0.008 (-0.039,0.024)	0.151 (0.078,0.224)	-0.011 (-0.075,0.052)	0.009 (-0.037,0.056)	0.051 (-0.067,0.169)	0.001 (-0.074,0.066)	0.008 (-0.045,0.062)						
Urban Population	-0.002 (-0.002,0.002)	-0.014 (-0.024,-0.004)	-0.007 (-0.003,0.004)	0.001 (-0.003,0.004)	-0.015 (-0.025,-0.005)	-0.011 (-0.017,-0.005)	-0.001 (-0.003,0.001)	-0.009 (-0.016,-0.001)	-0.006 (-0.012,-0.001)	0.001 (-0.003,0.004)	-0.004 (-0.014,0.006)	-0.001 (-0.010,0.007)	-0.007 (-0.010,-0.004)	-0.012 (-0.025,0.001)	-0.015 (-0.022,-0.007)	-0.003 (-0.008,0.001)	-0.010 (-0.029,0.008)	-0.008 (-0.021,0.005)						
CIM	0.164 (-0.037,0.365)	-0.227 (-0.470,0.015)	-0.136 (-0.312,0.040)	0.101 (-0.121,0.323)	-0.140 (-0.367,0.087)	-0.098 (-0.227,0.031)	0.096 (-0.072,0.264)	-0.080 (-0.245,0.085)	0.012 (-0.098,0.121)	-0.030 (-0.229,0.169)	-0.069 (-0.223,0.085)	-0.028 (-0.120,0.065)	0.033 (-0.211,0.277)	0.031 (-0.342,0.404)	0.001 (-0.249,0.251)	-0.108 (-0.425,0.209)	0.012 (-0.485,0.247)	-0.109 (-0.313,0.095)						
DPI Checks	0.016 (-0.005,0.037)	-0.007 (-0.026,0.011)	-0.006 (-0.017,0.006)	0.029 (0.004,0.054)	0.008 (-0.011,0.026)	0.002 (-0.009,0.012)	0.021 (0.005,0.038)	-0.007 (-0.027,0.013)	-0.006 (-0.016,0.004)	0.024 (0.002,0.045)	-0.002 (-0.023,0.019)	-0.002 (-0.008,0.007)	0.029 (0.005,0.053)	-0.002 (-0.025,0.021)	-0.003 (-0.015,0.009)	0.049 (0.015,0.084)	0.012 (-0.013,0.037)	0.004 (-0.006,0.015)						
Time Trend	0.019 (0.016,0.023)	0.019 (0.015,0.023)	0.017 (0.015,0.019)	0.006 (0.003,0.010)	0.006 (0.003,0.010)	0.006 (0.003,0.010)	0.006 (0.003,0.010)	0.006 (0.003,0.010)	0.006 (0.003,0.010)	0.004 (-0.00002,0.008)	0.004 (-0.00002,0.008)	0.004 (0.002,0.006)	0.014 (0.010,0.019)	0.014 (0.010,0.019)	0.017 (0.012,0.022)	0.017 (0.012,0.022)	0.017 (0.012,0.023)	0.019 (0.014,0.023)						
Constant	0.488 (0.389,0.587)	1.679 (1.118,2.240)	1.622 (1.183,2.061)	0.415 (0.265,0.564)	1.622 (0.996,2.249)	1.338 (0.968,1.708)	0.594 (0.511,0.676)	1.205 (0.723,1.688)	0.938 (0.620,1.295)	0.573 (0.445,0.701)	0.923 (0.332,1.514)	0.679 (0.196,1.161)	1.056 (0.928,1.183)	1.482 (0.697,2.268)	1.620 (1.186,2.054)	0.815 (0.560,1.069)	1.415 (0.261,2.568)	1.219 (0.435,2.063)						
Country Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes						
R ²	0.119	0.653	0.198	0.198	0.65	0.739	0.107	0.66	0.104	0.104	0.606	0.893	0.215	0.66	0.171	0.628	0.668							
SE Type	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	OLS							
Error Correction	No	No	ARI	No	No	ARI	No	No	ARI	No	No	ARI	No	No	ARI	No	ARI							
Time Trend	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes							
Observations	378	378	378	612	612	612	378	378	612	612	612	612	378	378	612	612	612							

Note: Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 3: Effects of Expertise (Holding an Economics PhD) and Electoral Competition on CBI and Components

	CBI										Limitations on Lending							
	Non-Imputed		Imputed		Non-Imputed		Imputed		Policy Independence		Non-Imputed		Imputed		Non-Imputed		Imputed	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
PHD	-0.025 (-0.154,0.104)	-0.017 (-0.151,0.117)	0.008 (-0.072,0.087)	-0.016 (-0.138,0.106)	-0.001 (-0.117,0.115)	-0.023 (-0.096,0.051)	-0.159 (-0.256,-0.061)	-0.020 (-0.104,0.064)	-0.020 (-0.078,0.037)	0.006 (-0.112,0.123)	0.026 (-0.062,0.114)	0.002 (-0.048,0.052)	-0.248 (-0.420,-0.075)	-0.016 (-0.170,0.137)	0.002 (-0.081,0.085)	-0.042 (-0.272,0.187)	-0.009 (-0.186,0.167)	-0.010 (-0.077,0.056)
Electoral Competition (EC (1-Victory Margin)	0.243 (0.117,0.370)	0.085 (-0.055,0.225)	0.075 (-0.011,0.162)	0.225 (0.090,0.360)	0.099 (-0.039,0.238)	0.029 (-0.049,0.108)	0.038 (-0.066,0.143)	0.036 (-0.032,0.104)	0.022 (-0.025,0.068)	0.105 (-0.039,0.241)	0.083 (0.011,0.155)	0.033 (-0.018,0.084)	0.109 (-0.070,0.287)	0.056 (-0.114,0.228)	0.055 (-0.032,0.143)	0.231 (-0.052,0.515)	0.065 (-0.162,0.292)	0.034 (-0.066,0.134)
PHD*EC	-0.038 (-0.211,0.136)	0.007 (-0.157,0.171)	0.006 (-0.091,0.104)	-0.019 (-0.198,0.160)	-0.002 (-0.145,0.140)	0.023 (-0.072,0.119)	0.233 (0.088,0.379)	0.096 (-0.026,0.217)	0.053 (-0.020,0.125)	0.032 (-0.149,0.213)	0.001 (-0.122,0.123)	0.001 (-0.071,0.074)	0.287 (0.065,0.510)	0.061 (-0.124,0.245)	0.017 (-0.048,0.142)	0.101 (-0.188,0.389)	0.072 (-0.132,0.275)	0.011 (-0.044,0.126)
Growth	0.006 (0.001,0.011)	0.006 (0.002,0.009)	0.002 (-0.003,0.004)	0.006 (0.003,0.010)	0.001 (-0.001,0.003)	0.00003 (-0.001,0.001)	0.005 (0.002,0.008)	0.002 (0.00000,0.004)	0.002 (-0.001,0.004)	0.003 (0.000,0.006)	0.005 (-0.001,0.002)	-0.002 (-0.001,0.001)	0.004 (-0.001,0.009)	0.004 (-0.003,0.007)	0.001 (-0.001,0.003)	0.007 (0.003,0.011)	0.002 (-0.001,0.006)	0.002 (-0.002,0.003)
IO Experience	0.115 (0.061,0.169)	-0.033 (-0.084,0.019)	-0.011 (-0.051,0.028)	0.078 (0.009,0.146)	-0.016 (-0.058,0.027)	-0.015 (-0.053,0.026)	0.056 (-0.032,0.143)	-0.044 (-0.103,0.016)	0.006 (-0.022,0.035)	0.019 (-0.107,0.145)	-0.040 (-0.082,0.003)	-0.006 (-0.032,0.020)	0.191 (0.132,0.251)	0.032 (-0.040,0.104)	0.023 (-0.015,0.066)	0.045 (-0.058,0.146)	-0.004 (-0.073,0.065)	0.011 (-0.034,0.007)
Urban Population	-0.002 (-0.004,0.000)	-0.016 (-0.050,-0.003)	-0.018 (-0.029,-0.007)	-0.001 (-0.004,0.003)	-0.017 (-0.029,-0.005)	-0.013 (-0.019,-0.007)	-0.001 (-0.003,0.001)	-0.016 (-0.027,-0.006)	-0.014 (-0.021,-0.007)	0.00000 (-0.003,0.003)	-0.006 (-0.016,0.004)	-0.004 (-0.012,0.003)	-0.008 (-0.011,-0.006)	-0.020 (-0.037,-0.004)	-0.024 (-0.034,-0.013)	-0.005 (-0.009,-0.001)	-0.013 (-0.034,0.007)	-0.010 (-0.024,0.004)
CIM	0.113 (-0.098,0.325)	-0.173 (-0.478,0.132)	-0.085 (-0.297,0.127)	0.079 (-0.138,0.296)	-0.154 (-0.374,0.067)	-0.105 (-0.235,0.025)	-0.010 (-0.174,0.154)	-0.159 (-0.365,0.047)	0.018 (-0.105,0.142)	-0.056 (-0.241,0.129)	-0.079 (-0.233,0.074)	-0.038 (-0.133,0.057)	-0.125 (-0.363,0.114)	-0.171 (-0.327,0.185)	-0.075 (-0.300,0.150)	-0.179 (-0.496,0.138)	-0.125 (-0.496,0.246)	-0.120 (-0.326,0.086)
DPI Checks	0.003 (-0.020,0.025)	-0.009 (-0.029,0.012)	-0.006 (-0.018,0.006)	0.010 (-0.015,0.034)	0.005 (-0.015,0.025)	0.001 (-0.010,0.012)	0.010 (-0.009,0.030)	-0.009 (-0.029,0.011)	-0.007 (-0.017,0.004)	0.012 (-0.009,0.034)	-0.005 (-0.025,0.016)	-0.001 (-0.009,0.007)	0.013 (-0.012,0.039)	-0.005 (-0.029,0.018)	-0.006 (-0.019,0.007)	0.025 (-0.005,0.055)	0.008 (-0.016,0.032)	0.019 (0.012,0.023)
Time Trend	0.509 (0.396,0.622)	1.667 (0.910,2.423)	1.653 (1.038,2.267)	0.439 (0.303,0.575)	1.627 (0.978,2.277)	1.387 (0.997,1.776)	0.683 (0.575,0.791)	1.591 (0.946,2.235)	1.346 (0.946,1.746)	0.577 (0.462,0.692)	0.926 (0.338,1.513)	0.824 (0.358,1.291)	1.195 (1.050,1.340)	2.076 (1.138,3.014)	2.158 (1.620,2.695)	0.843 (0.565,1.120)	1.491 (0.331,2.652)	1.304 (0.432,2.175)
Country Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
R ²	0.182	0.646	0.86	0.261	0.646	0.779	0.154	0.656	0.948	0.138	0.604	0.907	0.255	0.656	0.578	0.22	0.63	0.692
SE Type	Newey-West	Newey-West	ARI	Newey-West	Newey-West	ARI	Newey-West	Newey-West	OLS	Newey-West	Newey-West	ARI	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS
Error Correction	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No	Yes	No	No	ARI
Time Trend	353	353	353	612	612	612	353	353	353	612	612	612	353	353	353	612	612	612
Observations	353	353	353	612	612	612	353	353	353	612	612	612	353	353	353	612	612	612

Note: Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 4: Effects of Expertise (Holding an Economics PhD) and Pre-Electoral Protest on CBI and Components

	CBI						Policy Independence						Limitations on Lending					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
PHD	-0.059 (-0.111,-0.008)	-0.011 (-0.064,0.042)	0.005 (-0.025,0.036)	-0.029 (-0.092,0.034)	-0.006 (-0.054,0.042)	-0.010 (-0.040,0.021)	0.021 (-0.028,0.070)	0.021 (0.026,0.104)	0.019 (-0.003,0.041)	0.040 (-0.022,0.102)	0.028 (-0.010,0.066)	0.002 (-0.015,0.020)	-0.033 (-0.098,0.031)	0.039 (-0.023,0.101)	0.014 (0.010,0.077)	0.038 (-0.045,0.121)	0.044 (-0.029,0.117)	0.015 (-0.016,0.047)
Protests (PR)	-0.004 (-0.012,0.003)	0.002 (-0.004,0.007)	0.002 (-0.003,0.004)	0.00001 (-0.009,0.009)	-0.0002 (-0.006,0.006)	-0.0002 (-0.006,0.005)	0.001 (-0.006,0.007)	0.005 (0.001,0.008)	0.001 (0.0002,0.003)	0.002 (-0.004,0.009)	0.002 (-0.004,0.006)	0.001 (-0.001,0.002)	-0.002 (-0.010,0.006)	0.008 (0.002,0.015)	0.002 (-0.004,0.007)	0.005 (-0.007,0.017)	0.006 (-0.0003,0.12)	0.001 (-0.002,0.005)
PHD*PR	0.006 (-0.003,0.015)	-0.001 (-0.008,0.006)	0.004 (-0.003,0.004)	0.0002 (-0.009,0.009)	-0.001 (-0.007,0.005)	0.001 (-0.006,0.008)	-0.007 (-0.015,0.001)	-0.007 (-0.011,-0.002)	-0.001 (-0.002,0.001)	-0.009 (-0.018,-0.001)	-0.004 (-0.008,0.003)	-0.004 (-0.002,0.001)	-0.001 (-0.009,0.009)	-0.007 (-0.015,0.003)	-0.002 (-0.006,0.002)	-0.01 (-0.025,0.003)	-0.006 (-0.013,0.002)	0.002 (-0.004,0.004)
Growth	0.006 (0.001,0.011)	0.006 (0.002,0.009)	0.002 (-0.002,0.004)	0.006 (0.003,0.009)	0.001 (-0.001,0.003)	0.001 (-0.001,0.001)	0.004 (0.0003,0.007)	0.002 (-0.004,0.004)	0.001 (-0.001,0.001)	0.002 (0.000,0.005)	0.004 (-0.002,0.002)	-0.002 (-0.001,0.001)	0.003 (-0.002,0.009)	0.003 (-0.001,0.007)	0.001 (0.001,0.003)	0.007 (0.002,0.011)	0.002 (-0.001,0.006)	0.001 (-0.001,0.006)
IO Experience	0.140 (0.089,0.192)	-0.032 (-0.081,0.016)	-0.018 (-0.052,0.032)	0.094 (0.014,0.174)	-0.006 (-0.048,0.037)	-0.011 (-0.051,0.029)	0.018 (-0.036,0.133)	-0.03 (-0.113,-0.013)	0.007 (-0.022,0.036)	0.025 (-0.114,0.163)	-0.033 (-0.076,0.010)	-0.004 (-0.032,0.024)	0.182 (0.111,0.252)	0.006 (-0.055,0.067)	0.031 (-0.014,0.076)	0.063 (-0.048,0.174)	0.004 (-0.063,0.071)	0.001 (-0.039,0.065)
Urban Population	-0.001 (-0.003,0.001)	-0.015 (-0.032,0.001)	-0.018 (-0.026,-0.010)	0.0005 (-0.003,0.004)	-0.016 (-0.027,-0.004)	-0.012 (-0.018,-0.006)	-0.001 (-0.003,0.001)	-0.017 (-0.028,-0.006)	-0.016 (-0.025,-0.007)	0.001 (-0.002,0.004)	-0.005 (-0.015,0.005)	-0.004 (-0.012,0.004)	-0.008 (-0.010,-0.005)	-0.020 (-0.040,0.0003)	-0.024 (-0.033,-0.015)	-0.004 (-0.008,0.001)	-0.011 (-0.031,0.009)	-0.008 (-0.022,0.006)
CIM	0.164 (-0.044,0.372)	-0.102 (-0.465,0.080)	-0.088 (-0.282,0.106)	0.106 (-0.120,0.333)	-0.132 (-0.335,0.092)	-0.097 (-0.227,0.034)	0.073 (-0.097,0.243)	-0.107 (-0.304,0.091)	0.030 (-0.093,0.154)	-0.041 (-0.229,0.148)	-0.064 (-0.213,0.085)	-0.029 (-0.122,0.065)	0.025 (-0.232,0.283)	-0.055 (-0.457,0.347)	0.045 (-0.212,0.301)	-0.123 (-0.440,0.194)	-0.116 (-0.476,0.245)	0.005 (-0.309,0.093)
DPI Checks	0.020 (-0.001,0.041)	-0.007 (-0.027,0.013)	-0.006 (-0.018,0.007)	0.031 (0.006,0.056)	0.009 (-0.010,0.028)	0.002 (-0.009,0.012)	0.023 (0.007,0.039)	-0.006 (-0.027,0.015)	-0.005 (-0.016,0.005)	0.023 (0.003,0.043)	-0.001 (-0.022,0.020)	-0.004 (-0.008,0.007)	0.036 (0.011,0.061)	-0.004 (-0.028,0.020)	0.003 (-0.016,0.010)	0.050 (0.015,0.085)	0.013 (-0.012,0.037)	0.005 (-0.006,0.016)
Time Trend	0.019 (0.015,0.023)	0.019 (0.014,0.022)	0.018 (0.015,0.023)	0.018 (0.016,0.020)	0.018 (0.014,0.022)	0.018 (0.016,0.020)	0.008 (0.004,0.012)	0.008 (0.003,0.008)	0.006 (0.003,0.008)	0.006 (0.003,0.008)	0.004 (-0.002,0.008)	0.004 (0.002,0.006)	0.004 (0.001,0.019)	0.015 (0.011,0.021)	0.016 (0.011,0.021)	0.017 (0.012,0.023)	0.018 (0.014,0.023)	
Constant	0.516 (0.412,0.620)	1.664 (1.284,2.183)	1.733 (1.284,2.183)	0.424 (0.278,0.569)	1.591 (0.917,2.265)	1.373 (0.999,1.747)	0.572 (0.487,0.656)	1.622 (0.950,2.294)	1.408 (0.956,2.040)	0.552 (0.431,0.673)	0.889 (0.283,1.496)	0.804 (0.333,1.275)	1.043 (0.896,1.189)	1.961 (0.727,3.196)	2.103 (1.566,2.641)	0.789 (0.515,1.062)	1.377 (0.209,2.545)	1.189 (0.336,2.043)
Country Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes
R ²	0.131	0.637	0.822	0.198	0.639	0.784	0.104	0.651	0.945	0.117	0.507	0.91	0.193	0.651	0.861	0.165	0.626	0.686
SE Type	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS	Newey-West	Newey-West	OLS
Error Correction	No	No	ARI	No	No	ARI	No	No	ARI	No	No	ARI	No	No	ARI	No	No	ARI
Time Trend	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes
Observations	358	358	358	612	612	612	358	358	358	612	612	612	358	358	612	612	612	612

Note: Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 5: Effects of Political Experience and Electoral Competition on CBI, Controlling for EU Membership, Exchange Rate Regimes and Models without Controls

	CBI			Limitations on Lending			Policy Independence		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Political Experience (PE)	-0.104 (-0.192,-0.016)	-0.107 (-0.185,-0.029)		-0.094 (-0.234,0.046)	-0.127 (-0.244,-0.011)		-0.366 (-0.509,-0.224)	-0.218 (-0.353,-0.083)	
Electoral Competition (EC)									
(1-Victory Margin)	0.199 (0.136,0.262)	0.068 (-0.014,0.149)	0.066 (-0.030,0.162)	0.274 (0.156,0.392)	0.084 (-0.050,0.218)	0.096 (-0.061,0.253)	-0.035 (-0.130,0.061)	-0.009 (-0.124,0.106)	-0.016 (-0.137,0.105)
PE*EC	0.110 (-0.020,0.240)	0.082 (-0.026,0.189)		0.120 (-0.089,0.330)	0.095 (-0.074,0.263)		0.380 (0.203,0.558)	0.240 (0.077,0.402)	
Future Political Experience (FPE)			-0.057 (-0.147,0.033)			-0.060 (-0.195,0.076)			-0.199 (-0.364,-0.034)
FPE*EC			-0.002 (-0.124,0.119)			-0.093 (-0.286,0.100)			0.242 (0.057,0.427)
EU Member		0.069 (-0.010,0.147)			0.065 (-0.051,0.180)			0.083 (-0.027,0.192)	
Flexible Exchange Rate Regime		-0.038 (-0.086,0.011)			-0.042 (-0.120,0.037)			-0.058 (-0.115,-0.002)	
Growth		0.005 (0.002,0.008)	0.006 (0.002,0.010)		0.008 (0.003,0.012)	0.009 (0.003,0.014)		0.003 (-0.001,0.006)	0.003 (-0.001,0.008)
IO Experience		-0.048 (-0.101,0.005)	0.006 (-0.054,0.066)		-0.086 (-0.179,0.006)	0.018 (-0.082,0.118)		0.029 (-0.034,0.091)	0.056 (-0.023,0.135)
Urban Population		-0.018 (-0.027,-0.009)	-0.014 (-0.027,-0.002)		-0.023 (-0.036,-0.009)	-0.016 (-0.035,0.002)		-0.016 (-0.027,-0.004)	-0.020 (-0.036,-0.003)
CIM		-0.267 (-0.529,-0.006)	0.005 (-0.372,0.383)		-0.400 (-0.801,-0.0003)	-0.005 (-0.577,0.568)		-0.194 (-0.503,0.115)	0.256 (-0.158,0.669)
DPI Checks		-0.004 (-0.022,0.013)	-0.009 (-0.029,0.011)		-0.004 (-0.030,0.022)	-0.010 (-0.039,0.019)		-0.004 (-0.026,0.018)	-0.007 (-0.031,0.016)
Time Trend		0.017 (0.013,0.021)	0.017 (0.013,0.021)		0.027 (0.021,0.034)	0.024 (0.018,0.031)		0.012 (0.008,0.017)	0.014 (0.009,0.019)
Constant	0.538 (0.498,0.578)	1.851 (1.347,2.356)	1.442 (0.774,2.110)	0.454 (0.384,0.524)	2.186 (1.447,2.924)	1.522 (0.527,2.518)	0.807 (0.726,0.889)	1.921 (1.249,2.592)	1.774 (0.796,2.753)
Country Fixed	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Effects									
R^2	0.155	0.677	0.649	0.111	0.668	0.637	0.132	0.675	0.696
SE Type	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West
Error Correction	No	No	No	No	No	No	No	No	No
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	478	369	311	478	369	311	478	369	311

Note: The variable EU indicates is one if a country has been a full member or an official candidate in a given year. The variable Exchange Rate Regime is one if a country has a flexible exchange rate. Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 6: Effects of Political Experience and Pre-Electoral Protest on CBI, Controlling for EU Membership, Exchange Rate Regimes and Models without Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	CBI			Limitations on Lending			Policy Independence		
Political Experience (PE)	-0.034 (-0.082,0.015)	-0.063 (-0.106,-0.021)		-0.026 (-0.100,0.047)	-0.080 (-0.149,-0.011)		-0.096 (-0.156,-0.036)	-0.045 (-0.104,0.013)	
Protest (PR)	-0.001 (-0.009,0.006)	-0.003 (-0.006,0.0005)	-0.0003 (-0.003,0.002)	-0.001 (-0.013,0.010)	-0.007 (-0.012,-0.002)	-0.002 (-0.007,0.002)	-0.003 (-0.012,0.006)	0.003 (-0.001,0.007)	0.0003 (-0.004,0.004)
PR*EC	0.001 (-0.007,0.009)	0.006 (0.001,0.010)		0.003 (-0.010,0.017)	0.009 (0.002,0.017)		-0.0002 (-0.010,0.010)	0.001 (-0.005,0.006)	
Future Political Experience (FPE)			-0.074 (-0.128,-0.019)			-0.145 (-0.234,-0.055)			-0.068 (-0.143,0.006)
FPE*EC			0.004 (-0.002,0.009)			0.004 (-0.004,0.013)			0.007 (0.0004,0.014)
EU Member		0.083 (0.006,0.160)			0.086 (-0.028,0.200)			0.104 (0.0003,0.208)	
Flexible Exchange Rate Regime		-0.025 (-0.072,0.022)			-0.022 (-0.098,0.053)			-0.050 (-0.109,0.008)	
Growth		0.006 (0.002,0.009)	0.006 (0.002,0.010)		0.008 (0.003,0.013)	0.009 (0.003,0.014)		0.003 (-0.001,0.006)	0.003 (-0.001,0.008)
IO Experience		-0.052 (-0.102,-0.001)	0.001 (-0.049,0.051)		-0.078 (-0.161,0.006)	0.020 (-0.064,0.103)		-0.023 (-0.080,0.034)	0.034 (-0.039,0.108)
Urban Population		-0.016 (-0.025,-0.006)	-0.013 (-0.026,-0.001)		-0.020 (-0.034,-0.006)	-0.017 (-0.035,0.001)		-0.014 (-0.027,-0.002)	-0.017 (-0.035,0.0004)
CIM		-0.254 (-0.492,-0.015)	-0.085 (-0.403,0.233)		-0.413 (-0.766,-0.060)	-0.178 (-0.658,0.303)		0.041 (-0.332,0.414)	0.328 (-0.100,0.756)
DPI Checks		-0.003 (-0.020,0.014)	-0.009 (-0.030,0.012)		-0.002 (-0.028,0.023)	-0.011 (-0.041,0.020)		-0.0001 (-0.022,0.022)	-0.005 (-0.030,0.020)
Time Trend		0.017 (0.013,0.021)	0.017 (0.013,0.021)		0.027 (0.021,0.033)	0.025 (0.019,0.031)		0.011 (0.007,0.015)	0.012 (0.007,0.017)
Constant	0.671 (0.644,0.697)	1.769 (1.215,2.324)	1.504 (0.778,2.230)	0.639 (0.594,0.683)	2.086 (1.296,2.876)	1.741 (0.704,2.778)	0.772 (0.734,0.809)	1.637 (0.890,2.384)	1.570 (0.481,2.660)
Country Fixed	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Effects	0.007 (0.000,0.014)	0.671 (0.000,1.342)	0.644 (0.000,1.288)	0.002 (-0.002,0.002)	0.663 (0.000,1.326)	0.632 (-0.001,0.632)	0.04 (-0.004,0.04)	0.647 (0.000,1.294)	0.675 (-0.001,1.342)
R ²		Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West	Newey-West
SE Type	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Error Correction	499	372	315	499	372	315	499	372	315
Time Trend									
Observations									

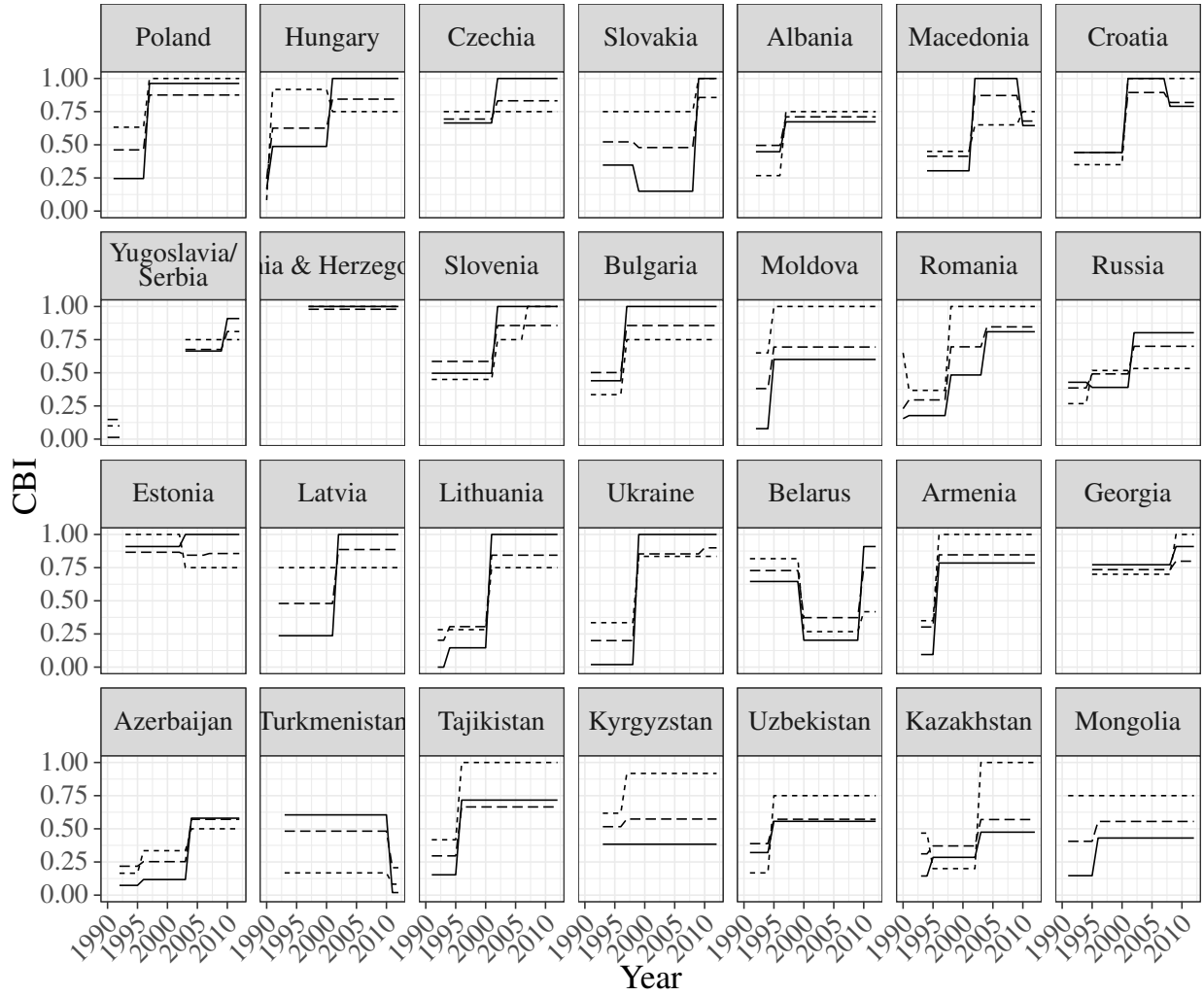
Note: The variable EU indicates is one if a country has been a full member or an official candidate in a given year. The variable Exchange Rate Regime is one if a country has a flexible exchange rate. Intervals in parentheses denote 95% confidence intervals using the type of standard error denoted in the row "SE Type".

Table 7: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
CBI	576	0.642	0.204	0.148	0.482	0.846	0.979
Political Experience	563	0.524	0.500	0.000	0.000	1.000	1.000
Victory Margin	528	0.318	0.301	-0.120	0.058	0.568	0.977
Pre-Electoral Protest	563	1.355	3.256	0.000	0.000	1.000	29.000
Growth	567	2.861	7.826	-45.325	0.601	7.211	35.390
Contract Intensive Money	495	0.747	0.153	0.242	0.667	0.869	0.962
Checks & Balances	612	57.094	11.683	26.501	50.975	67.360	75.697
IO Experience	538	3.052	1.637	1.000	2.000	4.000	8.000
intorg_pre_cb	570	0.100	0.300	0.000	0.000	0.000	1.000

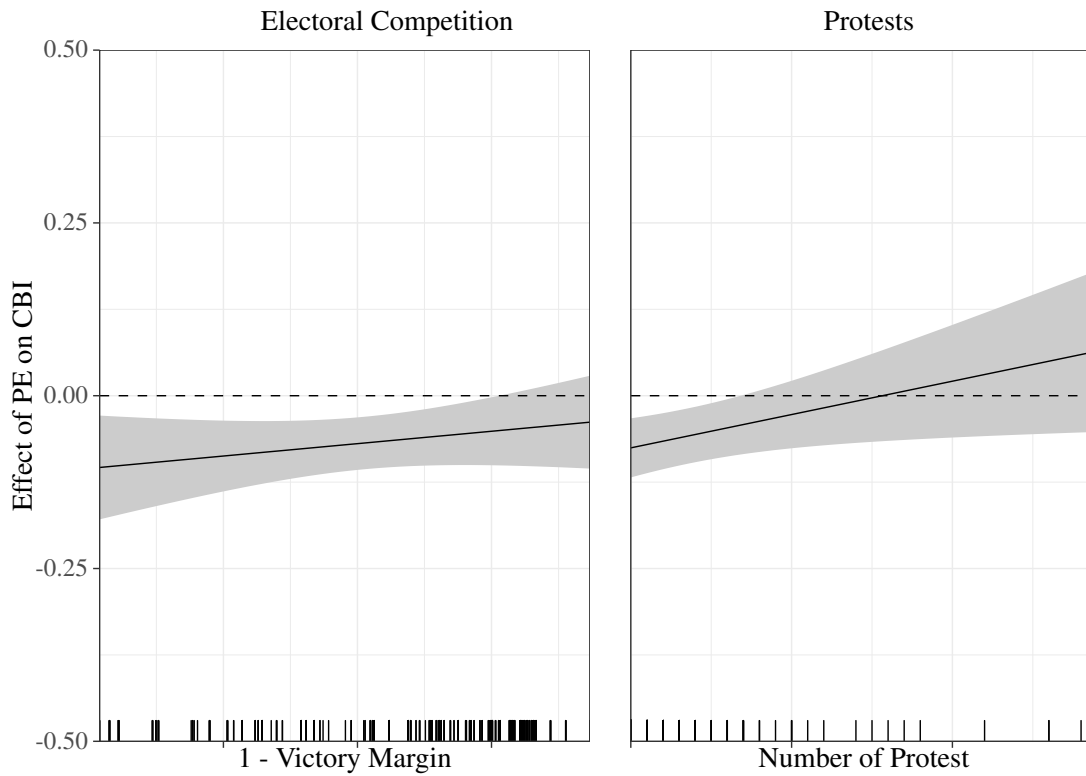
Number of country-years in sample: 613

Figure 2: CBI by Country



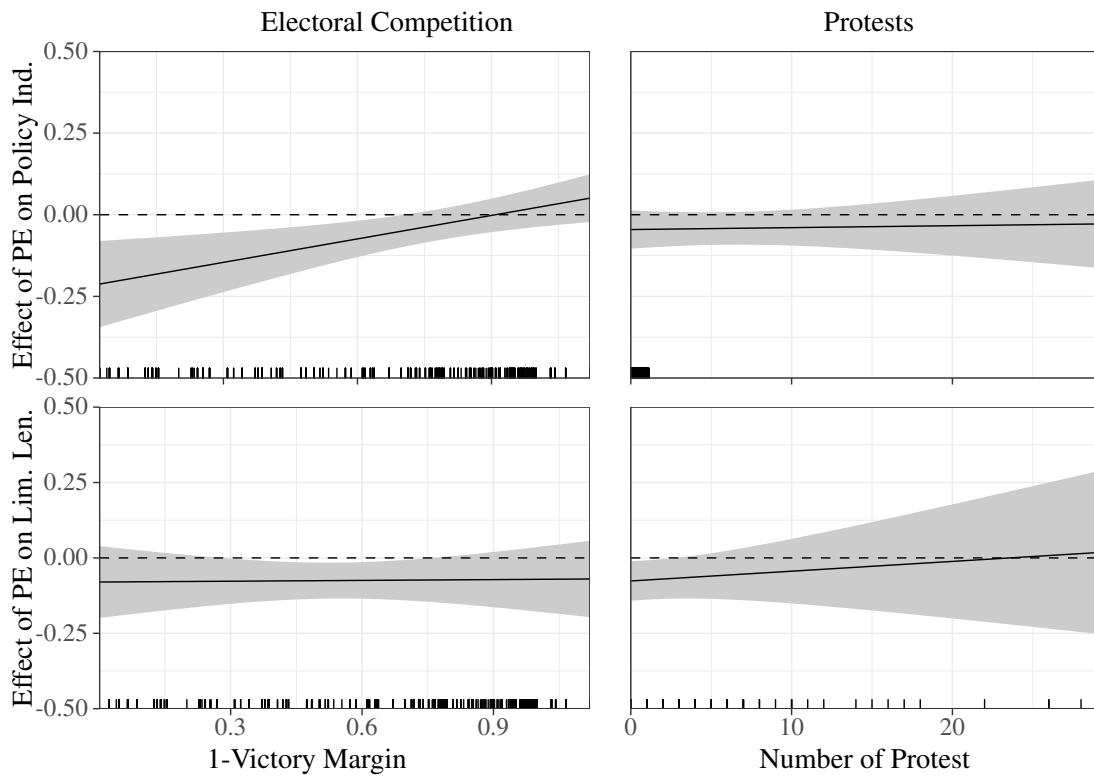
— Full CBI Index --- Policy Independence - - - Limitations on Lending

Figure 3: Marginal Effects of Political Experience on CBI



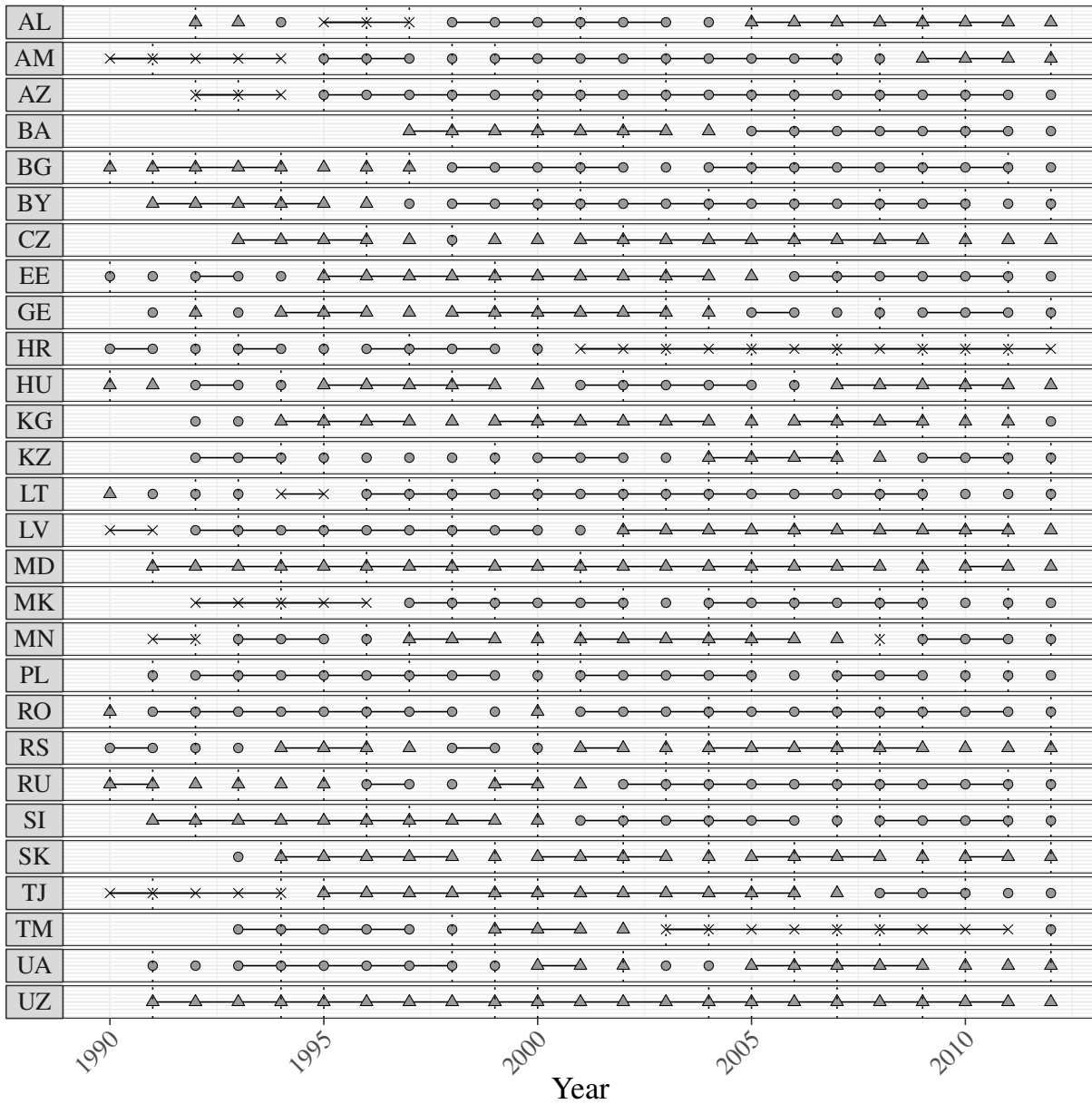
Note: The plot reports the marginal effects from the country fixed-effects model with CBI as dependent variable. Columns represent "Electoral Competition" and "Protests" as independent variables. The shaded areas show 95% confidence intervals using heteroscedasticity robust standard errors.

Figure 4: Marginal Effects of Political Experience on Lending Limitations and Policy Independence, Controlling for EU Membership and Exchange Rate Regime



Note: The plot reports the marginal effects from the country fixed-effects models from table 5 and 6, columns 5 and 8. Rows represent the CBI components "Policy Independence" and "Limitations on Lending" as dependent variables and columns represent "Electoral Competition" and "Protests" as independent moderator variables. The shaded areas show 95% confidence intervals using heteroscedasticity robust standard errors.

Figure 5: CBG Tenure, Experience and Election Years by Country



● Political Experience ▲ No Political Experience × Not Available

⋮ Election Year + Same Tenure