Criminal Politicians, Political Parties, and Selection[1]

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Abstract

I use data from four recent parliamentary elections in India to understand how criminally accused candidates win three times more often than non-criminals upon nomination. I write a simple model of party nomination choice, which predicts that criminals are nominated only when they are needed to win and not otherwise. Using local linear regressions, I confirm this prediction in the data. In particular, I find that the predicted probability from the ex post decision to nominate a criminal has an inverse-U relationship with a party's ex ante margin of victory. This may explain why criminal candidates are more successful than non-criminal candidates upon nomination: they are *selected* by political parties to do so.

JEL Codes: C14, D72

Keywords: Elections, Criminal Politicians, Political Parties, Selection

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1 Introduction

Politicians with links to corrupt or criminal activity frequently occupy elected office in India. Despite publicly available information on criminal cases against candidates, the proportion of criminal candidates in the Indian parliament is substantial—and increasing[3]. Using data from self-declared affidavits filed at the time of nomination[4], it has been established that electing politicians with criminal and financial charges encourages criminal activity (Chemin 2012) and reduces economic activity and public good provision (Prakash, Rockmore, and Uppal 2019). And yet, criminally indicted candidates continue to thrive at the ballot box: they win three times more often than non-criminals upon nomination in parliamentary elections.

In this paper, I examine how candidate nomination choice by political parties might explain the disproportionate success of criminal politicians. Political parties act as essential filters for voters in the electoral process and since their primary objective is to win elections, their decision to nominate a criminal or a non-criminal candidate necessarily accounts for voter attitudes towards criminals. In practice, criminals win more often upon nomination when they are affiliated to a national or state party than when they stand as independent candidates. Thus, in a context where hundreds of national, state, and local political parties contest, they are agents in their own right and their incentives and trade-offs have important consequences on electoral outcomes.

I model the nomination decision of a representative political party as a simple choice problem. In the model, the party's decision rests on the premise that the political party faces a trade-off between needing funds to win the election and suffering a "reputation loss" upon nominating a criminal candidate. Criminal politicians have more wealth than non-criminals, which provides incentive for political parties to nominate them when they sufficiently offset the corresponding reputation loss. The model predicts that when faced with such a trade-off, the party nominates a criminal candidate only if it would win the election with a criminal but lose otherwise. On the other hand, when it expects to win or lose the election irrespective of which type of candidate it nominates, the party chooses the non-criminal candidate so as to not incur a reputation cost. This prediction suggest that, in practice, a political party is more likely to nominate a criminal in a competitive election rather than one it expects to win by a landslide.

I use data from four recent parliamentary elections in India to support the premise and the prediction of the model. To support the premise, I run least squares regressions of candidate vote share on their wealth and criminality. I find that candidate vote share rises unambiguously with their personal wealth, and that voters may even reward criminals more for their wealth than they do

3. Following the 2019 elections, 43% of the Members of Parliament are criminally indicted, which is a 25% increase from the previous election in 2014. The charges against them amount to several thousand counts of murder, kidnapping, crimes against women, robbery and dacoity, cheating, forgery, and counterfeiting (ECI 2019).

4. Following a ruling by the Supreme Court of India in 2002, candidates for parliament and state assemblies are required to disclose all criminal cases pending against them while filing their nomination papers.

non-criminals[5]. However, vote share has a significant negative relationship with criminality. Thus, while wealthy candidates (more often criminal than not) attract votes, voters do punish candidates for being criminal, which is consistent with the trade-off in the model[6]. To support the prediction in the model, I run local linear regressions of the criminality of party's nominee on their margin of victory in the previous election. I find that the predicted probability from the *ex post* decision of parties to nominate a criminal has an inverse-U relationship with the party's *ex ante* winning margin, defined as the difference between a party's vote share in the previous election and that of its closest competitor. That is, holding other factors constant, a party is more likely to nominate a criminal in competitive elections.

By putting a structure on the selection of criminal candidates by political parties, this paper emphasizes how they may act as intermediaries in enabling criminal candidates to fare orders of magnitude better than non-criminal ones upon nomination. It also reiterates the important role of wealth in politics. Since criminal politicians are prevalent in democracies throughout the world,[7] this insight has implications well beyond the Indian context for the role political parties play in a democratic politics.

2 Data and Empirical Evidence

I use publicly available data from the Election Commission of India (ECI) on four elections conducted in 2004, 2009, 2014, and 2019 to elect members of the Lok Sabha, the lower house of India's bicameral parliament. This is linked to data from candidates' self-declared affidavits on wealth and criminal charges processed by the Association for Democratic Reforms (ADR)[8]. There are approximately 30,000 observations in my sample with variables on age, sex, caste, constituency, electoral outcome, wealth, and criminal charges of individual candidates. I match constituencies to districts using the Socioeconomic High-resolution Rural-Urban Geographic Platform for India (SHRUG 2022) and add information from the Cen-

5. Political parties, candidates, and regulatory bodies spent $8.6 billion in 2019, compared to an estimated $6.5 billion in the 2016 presidential and congressional contests in the United States (CNN 2019). Since there is no public funding of elections in India, political parties understandably prefer candidates who can fund themselves, and thus, campaign financing is typically the responsibility of the candidate.

6. The positive effect on vote share could be because some voters actually prefer criminal candidates, for instance, for their ability to "get things done" (Vaishnav 2012). So, the ability of candidates, both criminal and non-criminal, to have a "Robin Hood" effect is possibly an omitted variable in my regressions. However, a recent study argued that this channel may not hold weight due to the poor performance of criminally accused candidates in delivering public goods to their constituents (Murray 2020). In any case, criminals who act as beneficiaries likely do so due to their personal wealth, so the interaction between candidate wealth and criminality possibly acts as proxy for this effect.

7. The militia in Brazil (Ferraz and Finan 2008), paramilitaries in Colombia (Acemoglu, Robinson, and Santos 2013; Gallego 2018), armed gangs in Jamaica (Jaffe 2013), mafia in Italy (Daniele 2019), and godfathers in Thailand (Ockey 2003) are all examples of criminals having either played a prominent role in galvanizing support for politicians or contesting and winning elections themselves.

8. The linked data from the 2004, 2009, and 2014 elections were shared by Milan Vaishnav.

sus of India, the National Crime Records Bureau, and the Telecom Regulatory Authority of India on district-level literacy rate, share of households with radio/television, and crime rate.

Candidates may contest in elections independently or represent one of the hundreds of national, state, and local parties. While there is no limit to the number of candidates who can stand for election, a political party may nominate only one representative per constituency. Not all political parties are present in every constituency, however, and their geographic reach varies by party. Broadly, the six national parties have a nationwide presence, the state parties are present in most constituencies in their own state and sometimes in a neighbouring state, and local parties are present in a few neighboring constituencies. In each election, one candidate is selected from a set of nominees in each of the 543 electoral constituencies through the following voting rule: each voter casts a ballot for one and only one candidate and the candidate with the most votes wins.

To understand how criminality, wealth, and vote shared are related, I estimate the following least squares specification:

$$\begin{aligned}\ln\left(\frac{vote\ share_{ijt}}{1-vote\ share_{ijt}}\right) = \beta_0 + \ & \beta_1 \mathbb{1}\{\text{Criminal}_{ijt}\} + \ \beta_2 \ln(\text{Wealth}_{ijt}) \\ & + \ \beta_3 \mathbb{1}\{\text{Criminal}_{ijt}\} \times \ln(\text{Wealth}_{ijt}) \\ & + \ \beta_4 \text{ Candidate Characteristics}_{ijt} \ + \beta_5 \text{ Political Controls}_{jt} \\ & + \ \beta_5 \text{ Voter Characteristics } + \gamma_{it} \ + \gamma_{jt} \ + \epsilon_{ijt},\end{aligned} \tag{1}$$

where the dependent variable is the log odds ratio for vote share of candidate from party i in constituency j at year t and the explanatory variables of interest are $\mathbb{1}\{\text{Criminal}\}$, which is an indicator for whether the candidate is criminally accused, and ln(Wealth), which is the log transformation of their wealth. I include a number of candidate characteristics (age, sex, education level, caste), political controls (incumbency, prior margin, prior party), and voter characteristics common across candidates in a constituency (literacy rate, household income, proportion of households with access to radio, TV, broadband, SC population, ST population)[9] to the specification. I also include fixed effects to account for underlying differences in voters' taste for criminals across parties and states over time. The idiosyncratic error term, ϵ_{ijt}, is assumed to be exogenous.

I estimate three variations of the above specification. The results in Table 1 show that the coefficient on criminality is positive and significant when vote share is regressed on criminality alone. This positive coefficient on criminality decreases when ln(Wealth) is added to the specification but remains significant. However, when an interaction term between criminality and ln(Wealth) is introduced, the coefficient on the interaction term remains positive and significant but the coefficient on criminality becomes significantly *negative*.

9. I add political controls to account for candidate quality. The variables regarding literacy rate and access to radio, TV, and broadband are to account for availability and transmission of information to voters, which, some studies have argued, is of concern (Dutta and Gupta 2014; Banerjee et al. 2014).

These coefficients suggest that criminality has two opposing correlations with vote share. On the one hand, criminality has a positive correlation through wealth, which may be because criminals have additional resources and campaign power that is an omitted variable in the regression or because criminals under-report their wealth systematically differently from non-criminals. On the other hand, voters seem to punish criminals, as the negative correlation with criminality outweighs the positive correlation with wealth. I build this insight into the premise of the model.

Table 1: Criminality, Wealth, and Votes

Dependent Variable: $\ln\left(\frac{vote\ share_{ijt}}{1-vote\ share_{ijt}}\right)$	(1)	(2)	(3)
$\mathbb{1}\{\text{Criminal}\}$	.064**	.049**	−.108**
	(.003)	(.003)	(.016)
ln(Wealth)		.010**	.010**
		(.0003)	(.0003)
$\mathbb{1}\{\text{Criminal}\} \times \ln(\text{Wealth})$			.011**
			(.001)
Candidate Characteristics	Yes	Yes	Yes
Political Controls	Yes	Yes	Yes
Voter Characteristics	Yes	Yes	Yes
Party × Year FE	Yes	Yes	Yes
State × Year FE	Yes	Yes	Yes
Constant	.014	−.096**	−.087**
	(.006)	(.007)	(.007)
R^2	0.256	0.305	0.309
Observations	27,644	27,644	27,644

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

3 The Model

Consider a political party i in a given constituency and election year, which must choose from the "best" criminal and "best" non-criminal available to them. Let i's utility function have the following linear specification:

$$u^* = a\mathbb{1}\{\text{Win}\} - b\mathbb{1}\{\text{Criminal}\},$$

where $a - b > 0$ means that the party (1) faces a trade-off between winning the election and loss of reputation from nominating a criminal and (2) prefers to win with a criminal than to lose with a non-criminal.[10]

10. The * superscript means that i's utility is unobserved.

Let i win if its vote share is more than some exogenously given threshold, $\bar{v}$. I assume that i's votes depends on the party's strength, money spent on the election, criminality of candidate, and other candidate-specific controls (age, education level, caste, incumbency etc.),

$$\textit{vote share} = \theta_{01} + \alpha \text{ Strength} + \beta \text{ Money}^* - \gamma \ \mathbb{1}\{\text{Criminal}\} + \eta \text{ Controls} + \epsilon,$$

where *vote share* is observed only for the candidate who was nominated and not the alternative, Strength is the party's foothold in the constituency, Money is the (unobserved) campaign expenditure, and the exogenous shock has the distribution, $\epsilon \sim N(0, \sigma_\epsilon^2)$. Since the actual campaign expenditure is unobserved, I assume that it comprises of donations from supporters, which rises with party strength and campaign contributions by the nominee if they are a criminal,

$$\text{Money}^* = \theta_{02} + \delta \text{ Strength} + \phi \ \mathbb{1}\{\text{Criminal}\} + \psi,$$

where $\psi \sim N(0, \sigma_\psi^2)$. Substituting for Money, we arrive at the following vote share equation for potential nominees,

$$\begin{aligned} \textit{vote share} &= \underbrace{\theta_{01} + \beta\theta_{02}}_{\equiv\theta_0} + \underbrace{(\alpha + \beta\delta)}_{\theta_1} \text{Strength} + \underbrace{(\beta\phi - \gamma)}_{\equiv\theta_2} \mathbb{1}\{\text{Criminal}\} \\ &\quad + \eta \text{ Controls} + \underbrace{\beta\psi + \epsilon}_{\tilde{e}} \\ &= \theta_0 + \theta_1 \text{ Strength} + \theta_2 \ \mathbb{1}\{C\} + \eta \text{ Controls} + \tilde{e}, \end{aligned} \tag{2}$$

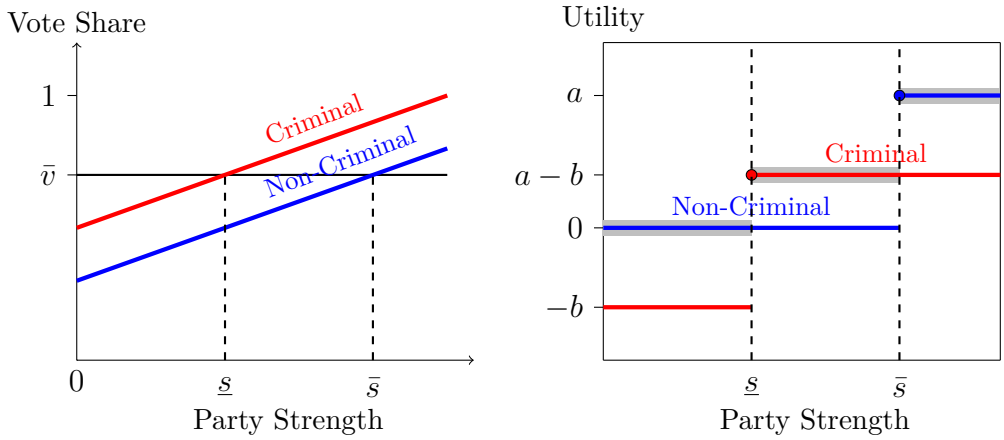
where $\tilde{e} \sim N(0, \beta^2\sigma_\psi^2 + \sigma_\epsilon^2)$, assuming $\epsilon \perp\!\!\!\perp \psi$.

Since criminals are nominated in the data, it must be that $\theta_2 > 0$. Figure 1 (a) plots the expected vote share against party strength for criminal and non-criminal choices and illustrates that the model implies the following nomination decision,

$$\mathbb{1}\{\text{Criminal}\} = 1 \text{ if Strength} \in [\underline{s}, \bar{s}), \text{ and}$$
$$\mathbb{1}\{\text{Criminal}\} = 0 \text{ if Strength} \notin [\underline{s}, \bar{s}).$$

Figure 1 (b) illustrates the nomination decision through the party's utility maximization. When a party's strength is below $\underline{s}$, it loses regardless of which candidate it nominates, so it prefers to nominate a non-criminal so as to avoid suffering a reputation cost without any chance of winning ($0 > -b$). Similarly, when a party's strength is above $\bar{s}$, it wins regardless of which candidate it nominates, so it prefers to nominate a non-criminal and enjoy its utility from winning rather than nominate a criminal and suffer a reputation cost with no additional gains ($a > a - b$). When a party's strength is between $\underline{s}$ and $\bar{s}$, it wins if it nominates a criminal and loses if it nominates a non-criminal, so the party will nominate a criminal because loss of reputation from nominating a criminal is offset by gain from winning the election ($a - b > 0$). The central trade-off in the party's utility function drives this result, which implies that when a party faces a reputation cost from nominating a criminal and gains from money that a criminal brings in, it only

Figure 1
Strength Thresholds that Determine a Political Party's Nomination Decision



(a) Strength Thresholds (b) Nomination Decision

Notes: In Figure (a), the red and blue lines denote the expected vote share when the party nominates a criminal and a non-criminal, respectively, conditioning on other factors, X. The exogenous vote threshold needed to win, $\bar{v}$, determines two strength thresholds, $\underline{s}$ and $\bar{s}$. The nomination decision of the party is then determined for these strength thresholds.

In Figure (b), the red and blue lines show the utility from nominating a criminal and non-criminal candidate, respectively, for different levels of party strength. The grey shadow highlights whether the party obtains higher utility from the criminal or non criminal-candidate, thus determining the party's nomination choice in each case. When Strength $< \underline{s}$ or Strength $\geq \bar{s}$, the party obtains a higher utility from nominating a non-criminal. It is only when Strength $\in [\underline{s}, \bar{s})$ that nominating a criminal leaves the party better off, so that is when it nominates a criminal.

nominates a criminal when they are needed to win and not otherwise. The result offers a novel explanation for why criminals win more often than non-criminals upon nomination: political parties *select* criminals when they are expected to win and not otherwise.

4 Empirical Test

In this section, I use data from Indian parliamentary elections to test the model prediction. If the model prediction is true, we should see that a party nominates non-criminals when it believes it will win or lose with a high margin and nominates criminals when it believes that it will win or lose with a low margin. In other words, assuming the party accurately predicts its predicament in the election, we should see that the predicted probability from the *ex post* decision to nominate a criminal has an inverse-U relationship with the *ex ante* margin of victory or loss.

To this end, I define a variable to capture a party's *ex ante* margin of vic-

tory or loss based on its vote share in the previous election year. For party i in constituency j at time t, let $win\ margin_{ijt} \equiv \max\{vote\ share_{-ij,t-1}\} - vote\ share_{ij,t-1}$. This variable takes negative values when i expects to win election at time t (because it won last period) and positive values when it expects to lose (because it lost period). When it takes values that are only slightly negative or slightly positive, it means that the party won or lost, respectively, by a narrow margin. When it takes values that are highly negative or highly positive, it means that the party won or lost, respectively, by a wide margin. By using this definition of *win margin*, the sample retains only candidates affiliated to political parties that contested in the previous election in the same constituency.

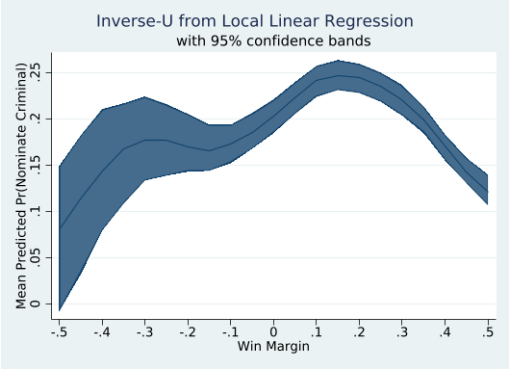
To capture the party's *ex post* decision to nominate a criminal, I use the indicator variable, $\mathbb{1}\{\text{Criminal}_{ijt}\}$, which takes the value 1 when party i nominates a criminal in constituency j year t. I assume this to be a flexible function of *win margin* and estimate $E[\mathbb{1}\{\text{Criminal}_{ijt}\} \mid win\ margin_{ijt}] = f(win\ margin_{ijt})$ using a local linear kernel regression. The optimal bandwidth is obtained using cross-validation and standard errors by fitting the model through bootstrap.

In Figure 2, I plot the mean predicted probability of nominating a criminal, $\hat{Pr}(\mathbb{1}\{\text{Criminal}\} \mid win\ margin)$, against *win margin*. On the vertical axis is the estimated population-averaged mean of the predicted probability of nominating a criminal when *win margin* takes a specific value on the horizontal axis. Since there are fewer winners in the data relative to nominees, the confidence bands for negative values of *win margin* are large and the first peak is not statistically significant. However, the graph is unmistakably non-monotonic at the second peak. I interpret this inverse-U shape as evidence that the *ex post* probability of nominating a criminal is high when a party's *ex ante* margin of victory is low and vice versa.

5 Conclusion

In this paper, I study how the nomination decisions of political parties might explain the disproportionate success of criminally accused politicians in Indian parliamentary elections. I find that criminality has two opposite correlations with vote share: on the one hand, the coefficient on criminality alone is negative and significant and on the other hand, the coefficient on the interaction between wealth and criminality is positive and significant. Thus, the nomination decision problem of a representative political party is premised on the trade-off between wealth that criminals bring in and the reputation cost to the party from nominating them. The model predicts that when faced with such a trade-off, a political party nominates a criminal candidate only when they are needed to win and not otherwise. I verify this prediction in the data using local linear regressions and find that a party's predicted probability from its *ex post* decision to nominate a criminal has an inverse-U relationship with its *ex ante* margin of victory. Thus, this paper offers a simple explanation of why criminals win more often than non-criminals upon nomination: they are *selected* by political parties to do so.

Figure 2
Inverse-U Relationship between Predicted Probability of Nominating a Criminal and Win Margin



Notes: This figure plots the relationship of the predicted probability of nominating a criminal with win margin obtained from a local linear regression of the ex post decision to nominate a criminal on ex ante win margin. I allow win margin to take values between -0.5 and 0.5 with increments of 0.05 and fit the model using 100 bootstrap replications. The confidence bands are at the 95% *level. The epanechnikov kernel is used for continuous regressors and the liracine kernal for discrete regressors.*

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