Third-Party Actors and the Success of Democracy: How Electoral Commissions, Courts, and Observers Shape Incentives for Electoral Manipulation and Post-Election Protests

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When and how do third-party actors—most prominently electoral commissions, courts, and observers—contribute to the integrity of the electoral process? We approach these questions by studying how third-party actors shape politicians’ incentives to comply with the outcomes of elections. Third parties are most beneficial in close elections, when the threat of a post-election confrontation alone fails to ensure self-enforcing compliance with election outcomes. Our analysis highlights that third parties do not need to be impartial to be politically consequential, that it is third parties with a moderate pro-incumbent bias that will be acceptable to not only the opposition but also the incumbent, and that incumbents adopt politically consequential third-party institutions when they fear that their narrow victory might result in a costly post-election confrontation. Extensions of our model address the role of repression and urban bias, examine the differences between commissions, courts, and observers, and clarify not only the potential but also the limits to institutional solutions to the problem of electoral compliance in new and transitioning democracies.

As long as I count the ballots, what are you going to do about it?
(—Boss Tweed)

When do third-party actors contribute to the integrity of the electoral process? How do they shape parties’ and candidates’ incentives to comply with the outcomes of elections? Various third-party institutions—most prominently electoral commissions, courts, and observers—are frequently credited with the capacity to deter electoral manipulation and prevent post-election disputes. According to Diamond and Morlino, for instance, “the single most important institutional guarantee of freedom and fairness . . . in elections is an independent and authoritative electoral commission” (2004, 25). Yet why an electoral commission would have such a capacity is far from obvious. After all, most electoral commissions—and certainly all observers—have only a few de jure powers and almost never any de facto powers: they do not command police forces, armies, or mobs that could enforce their verdicts. Hence it is not clear what prevents the incumbent or the opposition from ignoring them.

We approach these puzzles by studying how third-party actors contribute to “self-enforcing” compliance with the outcomes of elections. Beginning with Przeworski (1991), a growing line of research addresses questions about the viability of democracy by contrasting elections and violence as two alternative methods for resolving political conflicts, with elections being the less wasteful of the two. According to these accounts, democracy is self-enforcing when all com-
competing parties prefer the outcome of elections to the costly violent confrontation that would otherwise ensue. 5

Yet even from this perspective, the emphasis on third-party actors as well as the frequent occurrence of electoral manipulation and post-election protests present a puzzle: an incumbent who is genuinely popular should not need to manipulate elections in order to remain in office, while an unpopular incumbent should be deterred from stealing elections by the mere threat of a violent post-election confrontation. As long as candidate popularity translates into both votes and the capacity for violence, compliance with the outcomes of elections by the incumbent as well as the opposition should be self-enforcing. Put in the jargon of contemporary political science, stolen elections and post-election conflict should be “off the equilibrium path” and third-party actors redundant.

We address these puzzles by examining the implications of an important informational asymmetry that distinguishes elections in stable democracies from those in dictatorships and in new and transitioning democracies. 4 In the latter cases, the incumbent typically enjoys privileged access to information that plays a key role in post-election crises: the true level of his popular support. Once votes have been cast, most incumbents have access to such information by virtue of their control over the electoral administration. By contrast, the opposition must rely on either imperfect estimates of its popularity or a potentially misleading announcement of the election outcome by the incumbent. In the controversial 1988 Mexican presidential election, for instance, the candidate of the incumbent Institutional Revolutionary Party (PRI) Carlos Salinas could obtain information about his vote share from the Ministry of the Interior and the Federal Electoral Commission, both of which were controlled by the PRI. Thus when the opposition candidate Cuauhtémoc Cárdenas claimed that the PRI stole the election, he had to cite the “suspicious slowness” with which official results were announced and the “confidential information” that he received from inside the government—unlike Salinas, who actually knew whether the PRI in fact stole the election or not. 5

This informational asymmetry, which we refer to as the incumbent’s informational advantage, has far-reaching implications for the viability of self-enforcing compliance with election outcomes. We start by examining its role in a benchmark model that helps us answer a key question: Can the threat of a violent post-election confrontation alone compel politicians to comply with the outcomes of elections? In the model, an incumbent and an opposition candidate compete in an election, and once votes have been cast, the incumbent learns his true vote share and, if necessary, decides whether to steal the election. If the incumbent claims a victory—possibly lying about the outcome—the opposition either concedes the election or attempts to unseat the incumbent in a costly post-election protest. 6 Because the opposition’s information about its support among the electorate is imperfect, it understands that it may be overestimating its popularity and risks a costly defeat if it initiates a protest. In equilibrium, both electoral manipulation and post-election protests emerge endogenously, balancing the incumbent’s temptation to steal elections and the opposition’s doubts about whether it is popular enough to successfully unseat the incumbent in a post-election protest.

This benchmark analysis reveals that the opposition’s ability to deter electoral manipulation by threatening a post-election protest is limited: while self-enforcing compliance will occur in elections overwhelmingly won by one of the candidates, the threat of a post-election confrontation fails to deter manipulation when elections are close. In close elections, the incumbent’s informational advantage limits the credibility of the opposition’s threat to confront the incumbent in a post-election protest: the closer the two parties’ true popular support, the more pressing the opposition’s concern that it is overestimating its own popularity and will suffer a costly defeat if it initiates a violent post-election confrontation. Such doubts in turn create an incentive for the incumbent to claim a victory in elections that have actually been narrowly won by the opposition. The incumbent’s informational advantage thus turns into a political advantage that results in the failure of self-enforcing democracy.

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5. See William Branigin, “Mexican Opposition Presses Vote Claims; Leftist Asserts He Won; Rightist Calls for ‘Civil Resistance,’” Washington Post, July 11, 1988, p. A-6; Ginger Thompson, “Ex-President in Mexico...
We next examine how three prominent types of a third-party actor—electoral commissions, courts, and observers—improve both the incumbent’s and the opposition’s incentives to comply with the outcomes of elections.7 We develop a general model of each third party. We study an electoral commission that publicly certifies an election outcome and whose pro-incumbent bias may range from impartiality to complete subservience to the incumbent.8 When we examine observers, we account for the fact that their monitoring capacity may be limited. And when we model courts, we assume that they may differ in their concern about “convicting the innocent,” that is, unfairly rejecting the incumbent’s genuine victory. After all, in many new and transitioning democracies, the make-up of courts and commissions is neither completely impartial nor entirely controlled by the incumbent, and election observers frequently face logistical obstacles and conflicting incentives when evaluating elections, especially if an endorsement will deter a violent post-election confrontation.9

Surprisingly, we find that third parties do not need to be independent in order to improve self-enforcing compliance with election outcomes, and crucially, that it is precisely such third parties—with a moderate pro-incumbent bias—that will be acceptable to not only the opposition but also the incumbent. In the case of electoral commissions, for instance, an endorsement of the incumbent’s victory by even a biased commission may convey enough politically relevant information to discourage the opposition from resorting to a post-election confrontation. At the same time, the anticipation of a potential rejection by the commission compels the incumbent to concede elections that he would otherwise attempt to manipulate. These intuitions extend—with appropriate modifications—to electoral courts and observers. Third parties thus have the capacity to reduce the likelihood of costly post-election confrontations even if they are not perfectly impartial and even if their only de facto power is to publicly certify the winner of an election.

Crucially, our analysis of the trade-offs entailed in the adoption of politically consequential third parties clarifies not only their potential but also the limits to their contribution to the integrity of the electoral process. Real-world commissions, courts, and observers must be acceptable to both the opposition and the incumbent. On the one hand, incumbents benefit from impartial third parties when they fear that an election that they expect to narrowly win might be incorrectly perceived as the opposition’s victory and followed by a costly post-election confrontation. In such scenarios, an endorsement by an impartial third party will discourage the opposition from protesting. As the air force representative in the Chilean junta General Fernando Matthei put it when commenting on the 1988 referendum about whether to extend Augusto Pinochet’s rule for another eight years, “If the government’s candidate wins everyone will say it was fraud. . . . So it is more in our interest than in anyone else’s to be able to show it was an absolutely fair election.”10

On the other hand, incumbents will resist impartial third parties when pre-election expectations favor the opposition. In general, therefore, third parties will be both acceptable to the incumbent and politically consequential only in those elections in which the opposition beats pre-election expectations. Pinochet’s defeat in the 1988 Chilean referendum is one prominent example of when the risk of allowing for impartial third parties eventually backfired. At the time of the referendum’s planning, Pinochet’s regime expected a victory (Constable and Valenzuela 1989, 172). It therefore considered the reinstatement of the pre-1973 multiparty system of election oversight and the participation of foreign observers a safe bet.11 Once the vote revealed that the regime lost and observers confirmed it, the opposition was confident that it was supported by a majority of the public, and the regime had no option but to concede a defeat.

While extant research frequently attributes incumbents’ success in manipulating elections to their use of repression, our arguments show that the incumbent’s informational

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7. On electoral commissions and courts, see Pastor (1999) and Przeworski and Silva (2013); on courts, see Eisenstadt (2004); on election observers, see Hyde (2011), Kelley (2012), and Sjoberg (2013).
8. The key function of electoral commissions emphasized here—to administer the election and certify the result—is in many cases not performed by a “commission” but by a government authority (e.g., the Secretary of State in some US states) or a judiciary authority (e.g., the Conseil Constitutionnel in France); see López-Pintor (2000). Similarly, election disputes are only sometimes adjudicated by a dedicated electoral court (e.g., the Electoral Tribunal in Mexico); more frequently this function is performed by the high court (e.g., the Supreme Court in the case of Ukraine in 2004).
11. Consistently with our arguments about the positive minimal pro-incumbent bias of third-party actors acceptable to the incumbent, opposition parties especially encouraged the participation of observers with “centrist and center-right political views.” See Shirley Christian, “Foreigners to Observe the Plebiscite in Chile,” New York Times, September 18, 1988, p. 6.
advantage favors the incumbent even when he does not employ any repression. By initially setting repression aside in our benchmark model, we highlight that electoral manipulation is as much an informational problem as it is a problem of repression. In fact, our results imply that in elections that are close to perfectly tied, even the smallest amount of a third-party actor’s pro-incumbent bias can lead to a wasteful post-election confrontation. Close elections therefore present a challenge to electoral compliance in both new and advanced democracies, as the 2006 Mexican and 2000 US presidential elections illustrate. Nonetheless, we do consider repression in an extension of our benchmark model and confirm that the incumbent’s ability to get away with manipulating elections is indeed increasing in his repressive capacity.

Our analysis of the role of third-party institutional actors contributes to a growing line of research that studies the informational role of elections. According to these accounts, even manipulated or authoritarian elections may preclude violent political conflicts by revealing information about the strength of the contending parties. By contrast, we highlight that elections in dictatorships as well as in many new and transitioning democracies typically generate an asymmetry of information that both disadvantages the opposition and results in wasteful post-election conflicts when elections are close.

While our analysis is primarily theoretical, it yields a number of implications for the empirical study of election monitoring and post-election protests. We show that incentives for manipulation—and hence any potential deterrent effect of observers or protests—critically depend on the popularity of the contending parties. On the one hand, the threat of a violent post-election confrontation deters electoral manipulation only when it amounts to the stealing of an election that would have otherwise been overwhelmingly won by the opposition. We thus confirm Tucker’s (2007) conjecture that it is such “major” electoral fraud that will spark successful post-election protests. Yet at the same time, our analysis highlights that these cases should be rare—precisely because most incumbents will be deterred from manipulating such elections in the first place.

On the other hand, election observers matter most in close elections, when the threat of a protest alone fails to deter manipulation. Yet our models suggest that it is precisely in such circumstances that incumbents will resist politically consequential third parties. An association between the presence of observers and a polling station-level decline in the incumbent’s vote share alone is therefore at best a weak test of the deterrent effect of election monitoring. In the 2003 presidential election in Armenia, for instance, Hyde (2011) finds that observers reduced the incumbent’s vote share by between 2% and 6% (depending on the round.) Yet the incumbent Robert Kocharyan eventually won that election by a margin of 35 percentage points, safely vitiating any plausible deterrent effect of observers. A stronger test of the consequences of election monitoring would therefore focus on close elections—when election monitoring both makes a difference beyond what the threat of a protest can accomplish and when its presumed deterrent effect plausibly threatens the incumbent’s survival in office. More broadly, our models highlight that empirical research evaluating the deterrent effect election monitoring and post-election protests needs to pay closer attention to strategic selection effects.

In the next section, we present our benchmark model of electoral manipulation and post-election protest and study how the incumbent’s informational advantage limits the opposition’s ability to deter electoral manipulation. We then introduce three distinct types of third-party actors—an electoral commission, a court, and an observer—and examine how each improves self-enforcing compliance with election outcomes and when each is acceptable to not only the opposition but also the incumbent. We conclude by discussing the implications of our analysis for the study of pre-election as opposed to election-day fraud, third parties whose objectives include not only electoral fairness but also the avoidance of post-election violence, and for the role of third parties in presidential versus parliamentary democracies. Due to space constraints, we present our formal analysis of courts and observers in the supplementary appendix, which also includes the proofs of all technical results, alternative parameterizations of the incumbent’s informational advantage, and extensions of our analysis that examine the role of repression and pro-opposition urban bias in protest.

**THE BENCHMARK MODEL**

Figure 1 portrays the extensive form of our benchmark model of electoral manipulation and post-election protest. We index the incumbent and the opposition by 1 and 2,

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deciding between protesting and conceding the election, the opposition does not know whether the incumbent has indeed won the election or whether he is manipulating the result. This informational asymmetry is denoted by an information set that connects the two histories at the opposition’s decision node in Figure 1.

Throughout, we deliberately work with a very simple information structure: we assume that \( \theta \) is drawn from a uniform distribution on the interval \((\sigma_1, 1 - \sigma_2)\) and, conditional on \( \theta \), the signal \( S_2 \) is uniformly distributed on the interval \((\theta - \sigma_2, \theta + \sigma_2)\), where \( 0 < \sigma_2 < \frac{1}{2} \). We interpret \( \sigma_2 \) as a metric of the informational asymmetry between the incumbent and the opposition: the smaller \( \sigma_2 \) is, the more precise \( S_2 \) is as a signal of \( \theta \). The advantage of this simple framework is the availability of explicit, closed-form solutions for key quantities in our analysis.16

Finally, if the opposition protests, the post-election confrontation that occurs is costly to both the incumbent and the opposition. We denote this cost by \( c_i \), \( \frac{1}{2} \leq c_i < 1 \) for \( i = 1, 2 \).17 Only for now, we assume that the opposition prevails in the post-election confrontation if it is indeed supported by a majority of voters, \( \theta > \frac{1}{2} \). As Figure 1 indicates, we normalize the incumbent’s and the opposition’s payoffs from being in and out of office after the election and the potential post-election confrontation to 1 and 0, respectively.

This benchmark setting helps us answer a key question: Can the threat of a violent post-election confrontation alone compel politicians to comply with the outcomes of elections? We examine the perfect Bayesian equilibria of this benchmark model in threshold strategies, which we denote by \( s_i(\theta) \) and \( s_i(S_2) \). According to these strategies, the in-

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14. Substantively, \( S_1 \) may correspond to the opposition’s own exit poll or parallel vote count. But in many elections in our context, exit polls or parallel vote counts are either banned or beyond the opposition’s capacity. In those cases, \( S_1 \) plausibly corresponds to the opposition’s own “per-

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15. The assumption that \( \sigma_2 < 1/8 \) simplifies our analysis by avoiding the truncation at 0 and 1 of the support of several conditional densities in the analysis below.

16. In the supplementary appendix, we present results based on two alternative information structures: one where the signal \( S_2 \) is distributed normally with mean \( \theta \) and variance \( \sigma^2 \) (after appropriate transformations) and one according to which \( S_2 \) follows the Binomial distribution with the success probability \( \theta \) and \( N \) trials (in which case the precision of \( S_2 \) is increasing in \( N \).)

17. The assumption \( \sigma_i \geq \frac{1}{2} \) excludes costs of protest so low that the opposition would be willing to protest even if it were expected to be defeated. Meanwhile, the assumption \( \sigma_i < 1 \) eliminates costs of protest so high that the opposition would not be willing to protest even if it were certain that it is supported by a majority of the electorate and would therefore prevail in a post-election confrontation. See the supplementary appendix for details.

18. We relax this assumption in the supplementary appendix where we introduce repression and discuss the implications of pro-opposition urban bias.
cumbent manipulates the election if and only if the opposition’s popularity \( \theta \) is at most some threshold value \( \hat{\theta} \),

\[
\begin{align*}
s_1(\theta) = \begin{cases} 
\text{manipulate,} & \text{if } \theta \leq \hat{\theta}; \\
\text{step down,} & \text{if } \theta > \hat{\theta}.
\end{cases}
\end{align*}
\]

Meanwhile, the opposition protests if and only if it observes a signal of its popularity \( S \) that is greater than some threshold value \( \hat{S} \),

\[
\begin{align*}
s_1(S) = \begin{cases} 
\text{concede,} & \text{if } S \leq \hat{S}; \\
\text{protest,} & \text{if } S > \hat{S}.
\end{cases}
\end{align*}
\]

We will refer to \( \hat{\theta} \) and \( \hat{S} \) as the manipulation and protest thresholds, respectively.

Consider first how the opposition’s incentive to protest after the incumbent declares a victory depends on its perception of its popularity \( S \) and the incumbent’s manipulation threshold \( \hat{\theta} \). The opposition’s payoff from conceding the election is 0, while its expected payoff from protesting is

\[
\begin{align*}
\Pr[\theta > \frac{1}{2} | r = 1, S_1] & (1 - c_2) + \Pr[\theta \leq \frac{1}{2} | r = 1, S_2] (-c_2) \\
& = 1 - \Pr[\theta \leq \frac{1}{2} | r = 1, S_2] - c_2.
\end{align*}
\]

Above, \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_1] \) is the opposition’s belief that it indeed lost the election that the incumbent claims to have won. Given our assumption that the signal \( S_1 \) is uniformly distributed on the interval \( (\theta - \sigma_0, \theta + \sigma_0) \), the signal \( S_1 \) perfectly reveals whether the opposition is supported by a majority of the electorate when \( S_1 < \frac{1}{2} - \sigma_0 \) or \( S_1 > \frac{1}{2} + \sigma_0 \). More specifically, \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_1] = 1 \) if \( S_1 < \frac{1}{2} - \sigma_0 \) and \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_1] = 0 \) if \( S_1 > \frac{1}{2} + \sigma_0 \), and the opposition optimally concedes and protests for these respective values of \( S_1 \). When \( \frac{1}{2} - \sigma_0 \leq S_1 \leq \frac{1}{2} + \sigma_0 \), however, the opposition’s protest threshold \( \hat{S} \) solves

\[
c_2 = 1 - \Pr[\theta \leq \frac{1}{2} | r = 1, S_2].
\]

In indifference condition (1), \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_1] \) is consistent with the incumbent’s strategy according to Bayes’ rule when

In (2), \( \Pr[\theta = \frac{1}{2} | r = \frac{1}{2}, S_1] = 1 \), since we assumed that the incumbent truthfully announces that he won the election when he actually did. On the other hand, \( \Pr[\theta = \frac{1}{2} | S_1] \) is the incumbent’s actual strategy—the probability with which he manipulates the election if \( \theta > \frac{1}{2} \)—and it therefore depends on his manipulation threshold \( \hat{\theta} \),

\[
\begin{align*}
\Pr[\theta = \frac{1}{2} | \hat{\theta}, S_1] &= \frac{F_{\hat{\theta}}(\frac{1}{2} | S_1)}{1 - F_{\hat{\theta}}(\frac{1}{2} | S_1)},
\end{align*}
\]

After substituting (3) into (2), we see that the probability that the opposition indeed lost an election that the incumbent claims to have won is

\[
\begin{align*}
\Pr[\theta \leq \frac{1}{2} | r = 1, S_2] &= \frac{F_{\hat{\theta}}(\frac{1}{2} | S_2)}{F_{\hat{\theta}}(\frac{1}{2} | S_1)},
\end{align*}
\]

and it is decreasing in both \( \hat{\theta} \) and \( S_2 \). That is, the opposition believes that it more likely lost an election that the incumbent claims to have won if the incumbent manipulates only close elections (low \( \hat{\theta} \)) and if its signal indicates that it is unpopular (low \( S_2 \)).

Combining these results with the indifference condition in (1), we see that \( \hat{S} \) solves

\[
c_2 = 1 - \frac{F_{\hat{\theta}}(\frac{1}{2} | S_1)}{F_{\hat{\theta}}(\frac{1}{2} | S_2)} \quad \text{for } \frac{1}{2} - \sigma_0 \leq S_2 \leq \frac{1}{2} + \sigma_0.
\]

According to (5), the opposition’s protest threshold \( \hat{S} \) balances the cost of a failed post-election confrontation (the left-hand side) against its expected benefit (the right-hand side). Since the right-hand side is increasing in both \( \hat{\theta} \) and \( S_1 \), the threshold \( \hat{S} \) is decreasing in \( \hat{\theta} \). The greater the margin of the opposition’s victory for which the incumbent manipulates the election (a high \( \hat{\theta} \)), the lower the threshold signal \( \hat{S} \) above which the opposition protests.

Consider now how the incumbent’s incentive to manipulate the election depends on the opposition’s support among the electorate \( \theta \) and its protest threshold \( \hat{S} \). Recall
that we are assuming that when the incumbent is supported by a majority of the electorate, \( \theta \leq \frac{1}{2} \) he truthfully claims a victory, \( r = 1 \). When \( \theta > \frac{1}{2} \) on the other hand, the incumbent considers manipulating the election. Whenever \( \theta > \frac{1}{2} + \sigma_2 \), our assumption that \( S_2 \) is uniformly distributed on the interval \( (\theta - \sigma_2, \theta + \sigma_2) \) implies that the signal \( S_2 \) will perfectly reveal the victory that it is supported by a majority of the electorate. For \( \theta > \frac{1}{2} + \sigma_2 \), therefore, the incumbent optimally steps down. By contrast, when \( \frac{1}{2} < \theta \leq \frac{1}{2} + \sigma_2 \), the incumbent’s expected payoff from manipulating the election is

\[
\Pr [S_2 \leq \hat{S}_2 | \theta] - \Pr [S_2 > \hat{S}_2 | \theta] c_1,
\]

and he will be indifferent between manipulating and stepping down when his manipulation threshold \( \hat{\theta} \) solves

\[
\frac{c_1}{1 + c_1} = \Pr [S_2 \leq \hat{S}_2 | \theta] \quad \text{for} \quad \frac{1}{2} < \theta \leq \frac{1}{2} + \sigma_2. \tag{6}
\]

In indifference condition (6), \( \Pr [S_2 \leq \hat{S}_2 | \theta] \) is the probability with which the incumbent expects the opposition to concede the election if its protest threshold is \( \hat{S}_2 \) and his popularity is \( \theta \). The manipulation threshold \( \hat{\theta} \) is therefore increasing in the opposition’s protest threshold \( \hat{S}_2 \). Intuitively, the more sensitive the opposition is to the incumbent’s claim of a victory (low \( \hat{S}_2 \)), the smaller the maximum margin of the opposition’s victory that the incumbent dares to manipulate (low \( \hat{\theta} \)).

In equilibrium, \( \hat{\theta} \) and \( \hat{S}_2 \) satisfy indifference conditions (1) and (6) simultaneously. Our assumption that \( S_2 \) is uniformly distributed on the interval \( (\theta - \sigma_2, \theta + \sigma_2) \) implies that

\[
F_{\hat{\theta}}\left(\frac{1}{2} | S_2\right) = \frac{\frac{1}{2} - (S_2 - \sigma_2)}{2\sigma_2} \quad \text{and}
\]

\[
F_{\hat{\theta}}(\hat{\theta}|S_2) = \frac{\hat{\theta} - (S_2 - \sigma_2)}{2\sigma_2} \quad \text{for} \quad \frac{1}{2} - \sigma_2 \leq S_2 \leq \frac{1}{2} + \sigma_2,
\]

and

\[
\Pr [S_2 \leq \hat{S}_2 | \theta] = \frac{\hat{S}_2 - (\theta - \sigma_2)}{2\sigma_2} \quad \text{for} \quad \hat{S}_2 - \sigma_2 \leq \theta \leq S_2 + \sigma_2.
\]

Solving the indifference conditions (1) and (6) for \( \hat{\theta} \) and \( \hat{S}_2 \), we obtain the following result:

**Proposition 1** (Election Manipulation and Post-Election Protest). *In the unique perfect Bayesian equilibrium of the benchmark model,*

\[
\begin{align*}
\text{the incumbent} \quad & \left\{ \begin{array}{ll}
\text{manipulates} & \text{if} \quad \frac{1}{2} < \theta \leq \theta^*; \\
\text{steps down} & \text{if} \quad \theta > \theta^*;
\end{array} \right.
\end{align*}
\]

and if the incumbent claims a victory, \( r = 1 \),

\[
\begin{align*}
\text{the opposition} \quad & \left\{ \begin{array}{ll}
\text{concedes} & \text{if} \quad S_2 \leq S_2^*; \\
\text{protests} & \text{if} \quad S_2 > S_2^*; \\
\end{array} \right.
\end{align*}
\]

where

\[
\theta^* = \min \left\{ \frac{1}{2} + \sigma_2, \frac{2\sigma_2}{1 + c_1}, \frac{1}{2} + \sigma_2 \right\} \quad \text{and}
\]

\[
S_2^* = \frac{1}{2} + \sigma_2 \frac{2\sigma_2 + c_1 - 1}{1 + c_1}.
\]

**Proof.** Follows from the text.

For parameter values \( c_1 = c_2 = \frac{5}{12} \) and \( \sigma_2 = \frac{1}{10} \), for instance, Proposition 1 implies that \( \theta^* = 0.58 \) and \( S_2^* = 0.56 \). That is, the incumbent manipulates elections that the opposition has won by up to a margin of 16 percentage points but steps down otherwise; meanwhile, the opposition protests if its signal indicates that its margin of victory was larger than 12 percentage points but concedes the election otherwise.

**Comparative Statics and Political Implications**

**Self-enforcing compliance with election outcomes.** We may say that compliance with election outcomes is *self-enforcing* when (1) the incumbent claims a victory and the opposition concedes the election if \( \theta \leq \frac{1}{2} \), and (2) the incumbent steps down if \( \theta > \frac{1}{2} \). According to Proposition 1, the equilibrium probability of self-enforcing compliance with election outcomes is therefore

\[
\begin{align*}
\Pr [S_2 \leq S_2^* | \theta] & \quad \text{if} \quad \frac{1}{2} \leq \theta \leq \frac{1}{2}^*; \\
& \quad \text{if} \quad \frac{1}{2} < \theta \leq \theta^*; \\
& \quad \text{if} \quad \theta > \theta^*.
\end{align*}
\]

Figure 2 plots these equilibrium probabilities using the parameter values introduced earlier. If \( \theta \leq \frac{1}{2} \), compliance with election outcomes fails to be self-enforcing when the opposition incorrectly believes that it is supported by a majority of the electorate. This most likely occurs at values of \( \theta \) just below \( \frac{1}{2} \). Compliance with election outcomes entirely fails to be self-enforcing when the election is narrowly won by the opposition, \( \frac{1}{2} < \theta \leq \theta^* \). In these scenarios, the opposition worries that it may be overestimating its popularity, and the incumbent exploits these doubts by manipulating the election. Finally, when \( \theta > \theta^* \), compliance with election outcomes is self-enforcing: this is when the incumbent concludes that the opposition has won by a margin so large that it would be too risky to manipulate the election.
equilibrium with the probability, position protests. According to Proposition 1, this occurs in curs whenever the incumbent claims a victory and the op-

by the incumbent. When stolen and initiates a protest that will ultimately be defeated election but the opposition incorrectly believes that it was

These are the scenarios when the incumbent actually won the election outcomes, but these incentives are limited and hurts primarily the opposition.

Post-election conflict occurs whenever the incumbent claims a victory and the opposition protests. According to Proposition 1, this occurs in equilibrium with the probability,

\[
1 - \Pr \left[ S_2 \leq S_1^* | \theta \right] \quad \text{if } \theta \leq \theta^*; \\
0 \quad \text{if } \theta > \theta^*.
\]  

(8)

Figure 3 plots the equilibrium probability of post-election conflict as a function of the opposition’s popularity \( \theta \). When \( \theta \leq \frac{1}{2} \), post-election conflict is wasteful (the shaded area). These are the scenarios when the incumbent actually won the election but the opposition incorrectly believes that it was stolen and initiates a protest that will ultimately be defeated by the incumbent. When \( \theta > \frac{1}{2} \) on the other hand, post-election protest is warranted: it reverses the outcome of an election that the incumbent attempted to manipulate.

The limited deterrent effect of post-election protest. As Figures 2 and 3 indicate, the threat of a post-election protest does create incentives for self-enforcing compliance with election outcomes, but these incentives are limited. The limited deterrent effect of post-election protest is the consequence of two aspects of the benchmark model: the costliness of post-election confrontation and the incumbent’s informational advantage.

Consider first how the equilibrium manipulation and protest thresholds depend on the incumbent’s and opposition’s cost of post-election confrontation \( c_1 \) and \( c_2 \). Proposition 1 implies that \( \theta^* \) is decreasing in \( c_1 \) and increasing in \( c_2 \) while \( S_1^* \) is increasing in both \( c_1 \) and \( c_2 \). Intuitively, an increase in the incumbent’s cost of post-election protest \( c_1 \) is matched by a smaller margin of the opposition’s victory that the in-

cumbent dares to manipulate and, in turn, makes the opposition less suspicious of manipulation. Meanwhile, when the opposition is more concerned about its cost of post-election protest, it is more cautious about initiating a post-election confrontation, which the incumbent exploits by manipulating elections that the opposition won by a larger margin of victory.

When it comes to the incumbent’s informational advantage, recall that we take \( \sigma_2 \) as its metric: the larger \( \sigma_2 \) is, the greater the incumbent’s informational advantage. In equilibrium, the opposition concedes elections that it estimates to have narrowly won because of doubts about its true popularity and the ensuing concern about instigating a costly post-election confrontation in which it will be defeated (when \( \frac{1}{2} < S_2 \leq S_1^* \)). These doubts are exploited by the incumbent who in turn claims a victory in precisely such narrowly lost elections (when \( \frac{1}{2} < \theta \leq \theta^* \)). As the incumbent’s informational advantage diminishes, the opposition’s concern about overestimating its popularity abates and, in turn, self-enforcing compliance with election outcomes improves and the likelihood of a wasteful post-election confrontation declines. Jointly, the costliness of post-election confrontation and the incumbent’s informational advantage explain why the deterrent effect of post-election protest is limited and hurts primarily the opposition.

These political implications of the benchmark model are summarized in the following proposition:

**Proposition 2 (Political Implications).** In the unique perfect Bayesian equilibrium of the benchmark model,

1. the deterrent effect of post-election protest is limited: \( \theta^* > \frac{1}{2} \) and \( S_2 > \frac{1}{2} \) for \( \sigma_2 > 0 \);
(2) the cost of post-election confrontation discourages manipulation and protests: \( \theta^* \) is decreasing in \( c_i \) and increasing in \( c_2 \); \( S_i^* \) is increasing in both \( c_i \) and \( c_2 \).
(3) self-enforcing compliance with election outcomes improves as the incumbent’s informational advantage abates: \( \theta^* \) and \( S_i^* \) are both increasing in \( \sigma_\circ \) and \( \lim_{n \to 0} \theta^* = \lim_{n \to 0} S_i^* = \frac{1}{2} \).

Proof. See the appendix.

ELECTORAL COMMISSIONS, COURTS, AND OBSERVERS AS INSTRUMENTS OF SELF-ENFORCING DEMOCRACY

Our analysis so far reveals that the threat of a post-election protest may deter electoral manipulation, but also that this capacity is limited to elections overwhelmingly won by one of the candidates. We now examine whether and how three types of third-party institutions—electoral commissions, courts, and observers—improve self-enforcing compliance with the outcomes of elections. We highlight our key results by focusing on electoral commissions with a pro-incumbent bias \( \beta \), \( \frac{1}{2} \leq \beta \leq 1 \). Due to space constraints, we only briefly outline additional insights from our analysis of election observers and courts with the capacity \( \frac{1}{2} \) and restraint \( \mu \) and defer our formal analysis of these bodies to the supplementary appendix.

An electoral commission with a pro-incumbent bias \( \beta \) either certifies or rejects the incumbent’s claim of a victory by issuing a costless message \( r^{EC} = \{1, 2\} \). More precisely, after the incumbent claims a victory but before the opposition protests or concedes the election, the commission observes the true election result—and hence the opposition’s popularity \( \theta^* \)—and announces

\[
n^{EC} = \begin{cases} 1 & \text{if } \theta \leq \beta; \\ 2 & \text{if } \theta > \beta. \end{cases}
\]

The commission is impartial when \( \beta = \frac{1}{2} \) fully subservient to the incumbent when \( \beta = 1 \), and favors the incumbent for any \( \beta \) between these values.19

How does the commission’s announcement \( r^{EC} \) affect the incumbent’s and the opposition’s equilibrium behavior? Whenever the commission rejects the incumbent’s claim of a victory, \( r^{EC} = 1 \), it reveals to the opposition that it is supported by a majority of the electorate. Anticipating that the opposition will protest and prevail in the ensuing post-election confrontation, the incumbent has no choice but to step down when \( \theta > \beta \). Hence for \( \theta > \beta \), the presence of an electoral commission precludes the incumbent from manipulating the election.

By contrast, when the commission endorses the incumbent’s victory, \( r^{EC} = 1 \), the opposition learns that \( \theta \leq \beta \), and its indifference condition becomes

\[
c_2 = 1 - \Pr \left[ \frac{1}{2} \leq \frac{1}{2} | r = 1, r^{EC} = 1, S_j \right]
\]

for \( \frac{1}{2} - \sigma_2 \leq S_2 \leq \frac{1}{2} + \sigma_2 \),

(9)

where \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_j] \) is the opposition’s updated belief that it indeed lost the election after the incumbent claimed a victory and the commission endorsed it. In the appendix, we show that this belief is identical to \( \Pr[\theta \leq \frac{1}{2} | r = 1, S_j] \). Thus in equilibrium, the manipulation and protest thresholds \( \theta^{EC} \) and \( S_i^{EC} \) equal \( \theta^* \) and \( S_j^* \) as outlined in Proposition 1 as long as \( \theta^* \leq \beta \). Meanwhile, when \( \theta^* > \beta \), \( \theta^{EC} = \beta \) and \( S_i^{EC} \) solves the opposition’s indifference condition (9) for \( S_i \); assuming \( \theta = \beta \).

These equilibrium manipulation and protest thresholds are portrayed in Figure 4. We see that the presence of an electoral commission does not affect the opposition’s equilibrium protest threshold \( S_j^{EC} \) when the commission’s pro-incumbent bias is large, \( \beta > \theta^* \). Such electoral commissions are too biased to be politically consequential. But for \( \beta \leq \theta^* \), the presence of the electoral commission results in a decrease in the incumbent’s manipulation threshold and an increase in the opposition’s protest threshold. Thus even commissions with a positive pro-incumbent bias have the capacity to improve self-enforcing compliance with election

![Figure 4. The effect of the electoral commission’s pro-incumbent bias \( \beta \) on equilibrium manipulation and protest thresholds \( \theta^* \) (dashed) and SEC2 (solid).](image)

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19. Of course, most electoral commissions not only certify but also announce election results. The present setting is equivalent to one in which an electoral commission is willing to inflate a losing incumbent’s vote share by at most \( 2\beta - 1 \).
outcomes. Using the same parameter values as earlier and letting $\beta = 0.54$, for instance, changes $\theta^*$ from 0.58 to 0.54 and $S^*_2$ from 0.56 to 0.58. In turn, compliance with election outcomes improves and post-election conflict abates. Nonetheless, only impartial electoral commissions will prevent post-election confrontations in elections that are close to perfectly tied. These results are summarized in Proposition 3.

**Proposition 3 (Politically Consequential Electoral Commissions).** In the unique perfect Bayesian equilibrium of the model with an electoral commission with a pro-incumbent bias $\beta$,

(1) self-enforcing compliance with election outcomes improves with the commission’s impartiality: $S^*_2$ is decreasing and $\theta^*_{EC}$ is increasing in $\beta$ for $\frac{1}{2} < \beta < \theta^*$, $\lim_{\beta \to 1} \theta^*_{EC} = \frac{1}{2}$ and $\lim_{\beta \to 0} S^*_2 = \frac{1}{2} + \sigma_2$;

(2) the commission does not need to be impartial ($\beta = \frac{1}{2}$) in order to be politically consequential: $\theta^*_{EC} < \theta^*$ and $S^*_2 > S^*_1$ for $\frac{1}{2} < \beta < \theta^*$;

(3) close elections are the most demanding on the commission’s impartiality: $\lim_{\beta \to 1} \Pr(\text{post-election conflict}) > 0$ for any $\beta > \frac{1}{2}$.

**Proof.** See the appendix.

**Politically Acceptable Electoral Commissions**

The reduction in post-election conflict associated with politically consequential electoral commissions suggests that their adoption may be in the interest of not only the opposition but also the incumbent. Consider therefore the following extension of our setting: before the election, the incumbent observes an imperfect public signal $S_1$ of the opposition’s popularity $\theta$ and chooses the pre-incumbent bias $\beta$ of the electoral commission.20 We assume that $S_1$ is drawn from a uniform distribution on the interval $(\theta - \sigma_1, \theta + \sigma_1)$, where $\sigma_1 > \sigma_2$. The rest of the game continues as previously: once the election takes place, the incumbent observes $\theta$, announces (possibly lying) the result $r$ and, if he claims a victory, he may be contradicted by the commission’s report $r^*_{EC}$ and followed by an opposition protest. Note that just like earlier, the opposition decides whether to protest or concede the election based on the signals $S_1$, $S_2$, and the commission’s report $r^*_{EC}$, but without observing the actual $\theta$.

In this extended setting, the incumbent’s optimal choice of the commission’s bias $\beta^*$ maximizes his expected payoff with respect to $\beta$ in light of the pre-election signal $S_1$. A comparison of the incumbent’s payoff with and without a commission (see the supplementary appendix for details) implies that a politically consequential commission will be in the incumbent’s interest if he anticipates to either narrowly win $(S_1^* - \sigma_1 \leq \theta \leq \frac{1}{2})$ or to narrowly lose $(\frac{1}{2} < \theta \leq \theta^*_{EC})$. When the incumbent expects to narrowly win, he prefers an impartial commission, $\beta^* = \frac{1}{2}$, because his only concern is to avoid a wasteful post-election confrontation. Meanwhile when he expects to narrowly lose, adopting a politically consequential electoral commission increases the incumbent’s chance of getting away with manipulating the election as $S^*_2 > S^*_1$. The incumbent therefore optimally adopts a commission with the bias $\beta^* = \theta$. The risk of adopting a politically consequential commission is that the opposition will beat the incumbent’s expectations. In that case, he will have to concede the election or else he will be contradicted by the commission and face a successful opposition protest.

How the incumbent optimally weighs these marginal costs and benefits depends on the imperfection of the pre-election signal $S_1$. In general, however, the equilibrium choice of the commission’s bias $\beta^*$ will be weakly increasing and bound by $\frac{1}{2}$ and $\theta^*$. Figure 5 illustrates this result. The top row of Figure 5 plots the incumbent’s equilibrium choice of the commission’s pro-incumbent bias $\beta^*$ as a function of an essentially perfect pre-election signal $S_1$, $\sigma_1 = \frac{1}{1000}$, and an imperfect one, $\sigma_1 = \frac{1}{100}$. We see that $\beta^*$ is weakly increasing in $S_1$ and, for the case $\sigma_1 = \frac{1}{1000}$, approximates the optimal choice of $\beta$ in each of the cases outlined above.

The bottom row of Figure 5 plots the effect of the incumbent’s pre-election signal $S_1$ on the incumbent’s marginal benefit from a commission with the optimal pro-incumbent bias $\beta^*$. We see that the incumbent benefits from an electoral commission most when elections are close. When the incumbent expects to win narrowly, the commission lowers the odds that his victory will be incorrectly perceived as a loss by the opposition and followed by a costly post-election confrontation. When the incumbent expects to lose narrowly, an endorsement by even a somewhat biased commission may be credible enough to discourage the opposition from protesting. In close elections, these two benefits outweigh the risk of the commission contradicting the incumbent if the opposition were to beat its pre-election expectations. Proposition 4 summarizes these results.

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20. Assuming that the pre-election signal $S_1$ is public (rather than private) avoids the potentially complex signalling that would ensure if the incumbent’s choice of the pro-incumbent bias $\beta$ were informative about $\theta$. When $S_1$ is public, the opposition uses the pre-election signal to infer $\theta$ along with its private (post-election) signal $S_2$. Substantively, $S_1$ may correspond to a public opinion survey or the result of an earlier election.
Proposition 4 (Politically Acceptable Electoral Commissions). The equilibrium pro-incumbent bias of the electoral commission $\beta^*$ is

(i) weakly increasing in the pre-election signal $S_1$ for $\frac{1}{2} - \sigma_i \leq S_1 \leq \frac{1}{2} + \sigma_i$; and

(ii) bound by $\frac{1}{2}$ from below and by $\theta^*$ from above, $\beta^* \in \left[\frac{1}{2}, \theta^*\right]$.

Proof. See the appendix.

Courts and Observers

Key insights from our analysis of electoral commissions extend to the case of courts and observers. Just like a commission, these third-party actors either endorse or reject the incumbent’s claim of a victory. But unlike in the case of commissions, courts’ and observers’ ability to observe the opposition’s popularity is limited; we refer to this as their judicial and monitoring capacity. Additionally, these third parties have a concern about “convicting the innocent,” that is, about unfairly rejecting the incumbent’s victory. And unlike observers, courts only act if the opposition mounts a costly legal challenge against the incumbent. Due to space constraints, we only briefly outline key insights from our analysis of courts and observers; we defer our formal analysis of these third parties to the supplementary appendix.

Just like commissions, courts and observers improve self-enforcing compliance with election outcomes by attenuating the incumbent’s informational advantage. On the one hand, the possibility that a court or an observer would reject the incumbent’s victory discourages him from manipulating elections. On the other hand, these actors’ endorsement of the incumbent’s victory deters the opposition from protesting. This effect is increasing in their judicial and monitoring capacity and decreasing in their concern about “convicting the innocent.” In fact, this seemingly nonpolitical feature of these third parties amounts to a de facto pro-incumbent political bias. Finally, our analysis clarifies that when the opposition decides between a costly challenge against the incumbent in court versus the street, it effectively weighs the cost of litigation against the political value of the information that a court ruling might reveal. Consistent with our earlier findings, that value is greatest in close elections—when the opposition is most concerned about overestimating its popularity.
DISCUSSION

The predominantly empirical research on electoral malpractice increasingly studies the multitude of instruments that incumbents employ in order to retain power. The “menu of manipulation,” to borrow Schedler’s (2002) expression, ranges from voter intimidation to media control to ballot fraud.21 Our analysis contributes to this research by shifting focus from the particular instruments of manipulation to the incumbent’s strategic decision to manipulate an election in the first place. After all, the choice of a particular instrument or degree of manipulation is most often only the operational implementation of such a top-level political decision.

Our approach highlights that one frequently evoked deterrent to manipulation, the threat of a post-election opposition protest, alone fails to ensure compliance with the outcomes of elections. Especially when elections are close, wasteful post-election conflict occurs because the opposition disputes an election that it indeed lost or, more often, because the incumbent exploits the opposition’s doubts about its popularity and claims a victory in an election that he knows was actually won by the opposition. Electoral commissions, courts, and observers—whose only de facto power may be to endorse the winner of an election—nonetheless have the capacity to prevent wasteful post-election conflicts. Their verdicts reveal politically valuable information about the popularity of the contending parties even when they face limits on their political independence, judicial authority, or monitoring capacity. In fact, it is precisely such imperfect third parties that will be at the same time acceptable to the incumbent and politically consequential.

One extension of these arguments suggests that a new democracy’s form of government—presidential or parliamentary—may account for significant differences in incentives for electoral manipulation. Throughout our analysis, we have treated the election outcome as an indivisible prize. A natural extension would consider whether a compromise in the form of power sharing or policy concessions might avoid the wasteful post-election conflicts that occur in our models. The relevance of such compromise solutions, however, crucially depends on their credibility.22 A post-election compromise might be credible in parliamentary systems where the legislative majority holds an effective veto over the government’s survival, but its credibility is questionable in presidential systems where the executive and the legislature are constitutionally independent from each other.23 Anticipating the infeasibility of a credible post-election compromise in a presidential system, both the incumbent and the opposition will be reluctant to concede a defeat, turning presidential elections into all-or-nothing contests. Third parties should therefore play a particularly vital role in precluding post-election disputes in presidential systems.

While our models allow for third parties to be biased, unlike the incumbent or the opposition, they are not genuinely strategic actors. This is nonconsequential when their bias entails unfairly favoring the incumbent or a concern about “convicting the innocent.” Studies of election monitoring (Hyde 2011; Kelley 2012), however, suggest that another relevant form of bias emerges when observers face different, potentially conflicting objectives. Especially in post-conflict settings, observers are often torn between their concern about electoral manipulation versus post-election violence. During the 2009 presidential election in Afghanistan, for instance, election observers were hesitant to reject the incumbent Hamid Karzai’s victory even after multiple reports of irregularities, fearing that it might destabilize the already fragile country.24 Our models could be extended to account for such conflicting objectives of third parties by treating them as genuinely strategic actors that weigh the consequences of their verdicts before issuing them.

Another extension of our analysis concerns the differences between pre-election and election-day manipulation. The present formalization of manipulation best corresponds to the kind that typically occurs on election day or soon after, as exemplified by the 1988 Mexican election that we evoke in the introduction. We nonetheless consider it a productive analytical starting point. In its most blatant form, election-day manipulation amounts to winning the count as opposed to winning the vote, to paraphrase Anastasio Somoza’s oft-cited brag.25 In turn, election-day manipulation is the “manipulation of last resort”—available to incumbents even after other forms of manipulation have failed to secure a victory. Our model of the role of protests and third parties in deterring this most blatant, last-resort form of manipulation thus offers a useful analytical benchmark.

22. Gandhi (2011) examines a related concern, the credibility of pre-election coalitions among opposition candidates. In a seminal article, Fearon (1995) identifies issue indivisibilities and credibility problems as key obstacles to negotiated solutions to international crises.
mark to which the more subtle forms of pre-election manipulation may be compared.

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