



Choosing from the Menu of Manipulation: Explaining Incumbents' Choices of Electoral Manipulation Tactics

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Choosing from the Menu of Manipulation

Explaining Incumbents' Choices of Electoral

Manipulation Tactics*

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Abstract

How do political actors choose between different tactics of electoral manipulation, and how does the context in which elections take place shape those decisions? In this paper we argue that choices for specific manipulative tactics are driven by available resource and cost considerations, as well as evaluations of the effectiveness of various tactics. We further argue that cost considerations are importantly shaped by the context in which elections take place, most notably by the level of democratization. We test our hypotheses on a complete time-series-cross-section dataset for 1506 elections in 160 electoral regimes around the world from 1974 to 2012. We find that democratization initially leads to increases in vote buying as “cheap” forms of electoral manipulation available to incumbents such as intimidation and manipulating electoral administration become less viable.

1. Introduction

What determines political actors' decisions to engage in varying tactics of electoral manipulation? As elections spread the world after the end of the Cold War, the “menu” of tactics available to political actors to manipulate elections appears to have expanded too (Schedler 2002a). Ranging from manipulation of electoral legislation to gerrymandering, to opposition and voter intimidation, to flawed voter registries and biased media and campaigning, to actual ballot box rigging and vote count manipulation, the variety of methods that can be used to manipulate elections and undermine election integrity is dazzling (Lehoucq 2003; Calinggaert 2006; Birch 2011; Norris 2015). Yet, little is known about why actors choose varying tactics.

The burgeoning literature on electoral manipulation and integrity has identified several factors shaping the “motives and means” of political actors to engage in electoral manipulation that range from socio-economic structure, electoral institutions and electoral competition, to the impact of international factors (cf. Lehoucq 2003; Bermeo 2010; Birch 2011; Donno 2013; Simpser 2013; Kelley 2013; Schedler 2013; Norris 2015 for discussions of the literature). Explanations can be grouped in more long-term structural factors, intermediate factors, and proximate factors (*blinded for review*; Norris 2015). Long-term explanations refer to the economic and social structure of societies that shape power relations between citizens and elites, such as economic inequality and social heterogeneity. Authors like Birch (2011), Lehoucq and Molina (2002), Norris (2015) and Ziblatt (2009) have found that electoral manipulation is more widespread in countries with high levels of poverty, high economic inequality and deep social divides. Intermediate explanations refer to political institutions that set the rules of the game, such as the electoral system and the rules of electoral governance. Institutions that increase the stakes of the electoral race, such as majoritarian systems, have been found to increase electoral manipulation (Birch 2008), while proportional electoral systems and broader power-sharing institutions have been found to decrease levels of electoral manipulation (Lehoucq and Kolev 2015; Norris 2015), along with institutions of electoral oversight such as independent electoral management bodies (Hartlyn et al. 2008; Norris 2015; *blinded for review*).

Proximate explanations refer to strategic choices of political actors, based on the characteristics of the particular electoral game, such as electoral competition and the presence of oversight by independent media and international and domestic election monitors. While independent media has been found to have a consistent and strong positive effect on election integrity (Birch 2011; *blinded for review*), findings on the impact of international and domestic election observers are more mixed, with some scholars noting improved levels of election

integrity while others have observed temporal and geographical displacement of irregularities in response to observer presence (Birch 2011; Bjornlund 2004; Hyde 2007, 2011; Kelley 2013; Norris 2015; Sjoberg 2012; Simpser and Donno 2012; Ichino and Schundeln 2012). Likewise, the consequences of electoral competition for levels of electoral manipulation appear to be contradictory: while in some cases electoral competition leads to increases in election fraud (Lehoucq and Molina (2002) on Costa Rica, and Ziblatt (2009) on Germany), in electoral authoritarian regimes manipulation appears to be higher in non-competitive races, for reasons elaborated in Simpser (2013) and Schedler (2013).

Thus, considerable progress has been made in identifying why overall *levels* of election integrity are higher in some countries than in others, as well as in explaining the prevalence of specific types of electoral manipulation such as vote buying and election violence (Brusco, Nazareno and Stokes 2004; Schaffer 2007; Stokes et al. 2013; Gallego and Wantchekon 2012; Vicente and Wantchekon 2009; Vicente 2014; Collier 2009; Daxecker 2012; Wilkinson 2006; Hafner-Burton et al. 2014). However, much less is known about how political actors choose between different tactics, and about contextual variation in the attractiveness of different manipulative tactics.

Research on clientelism has explored trade-offs between tactics of vote-buying, turnout buying and abstention buying (Nichter 2008; Gans-Morse et al. 2014; Rueda 2013), and there has been some research exploring the alternate use of violence and vote buying (Collier and Vicente 2012, 2013) and violence and ballot box fraud (Weidman and Callen 2013). Yet, a theoretical framework encompassing the wider menu of electoral manipulation tactics is still missing.¹ This paper aims to make a first step towards developing such a framework, suggesting a more comprehensive theory to explain actors' choices of electoral manipulation tactics.² We

¹ An exception is Schedler (2013), who seeks to explain authoritarian incumbents' choices for four different types of electoral manipulation (repression, censorship, fraud and exclusion). His theoretical model focuses on how incumbents in electoral authoritarian regimes choose the level of manipulation for each of these tactics, placing this choice in the context of the 'two level game of democratization', where the benefits of different types of manipulation are determined by their capacity to help avoid 'first order threats' in the present elections, while the costs of different types of manipulation are determined by the extent to which they create 'second order threats' in future elections. He argues that costs are likely to differ in different regime types, explaining different manipulative choices by incumbents in those regime types. We build to some extent on Schedler's work in our theoretical framework, however we focus on the electoral game only, emphasize differential effectiveness of manipulative tactics (in addition to costs), explicitly model trade offs between manipulative tactics, and broaden our theoretical framework to include all electoral regimes, varying from electoral autocracies to liberal democracies.

² Conceptualizations of electoral manipulation vary from 'positive' definitions (emphasizing the presence of desirable properties of elections) such as the free and fairness of elections, election quality or election integrity (Elklin and Svensson 1997; Lindberg 2006; Elklin and Reynolds 2005; Norris 2014, 2015) to 'negative' definitions (emphasizing the absence of desirable properties) such as electoral manipulation, electoral malpractice, and election fraud (Schedler 2002a, 2013; Birch 2011; Lehoucq 2003; Simpser 2013). Conceptualisations also differ in the normative criteria used to evaluate the quality of elections, ranging from international legal norms, to national law, to democratic theory (Davis-Roberts and Carroll 2010; Norris 2014; Lehoucq 2003; Munck 2006, 2009). Moreover, they also differ in scope: while some definitions are broader and include administrative irregularities in their

argue that these choices are driven by resource and cost considerations, as well as by evaluations of the effectiveness of various tactics. We further argue that cost considerations are importantly shaped by the context in which elections take place, most notably by the level of democratization. We then draw out a set of detailed empirical implications from the more general theory, and test these using a time-series-cross-section dataset covering all 1,506 elections in 160 electoral regimes around the world from 1974 to 2012 using the new Varieties of Democracy dataset (Coppedge et al. 2015a). We conclude with a critical discussion of results as a first set of tests of the more comprehensive theory.

2. Choosing from the menu of manipulation

In the past decades, the proportion of states holding elections for national public offices has sharply increased. As Figure 1 demonstrates, by 2012 almost 90% of countries around the world hold national elections. However, as Figure 2 shows, the integrity of those elections vary decidedly.

Figure 1. Proportion of states holding national elections (1900-2012)

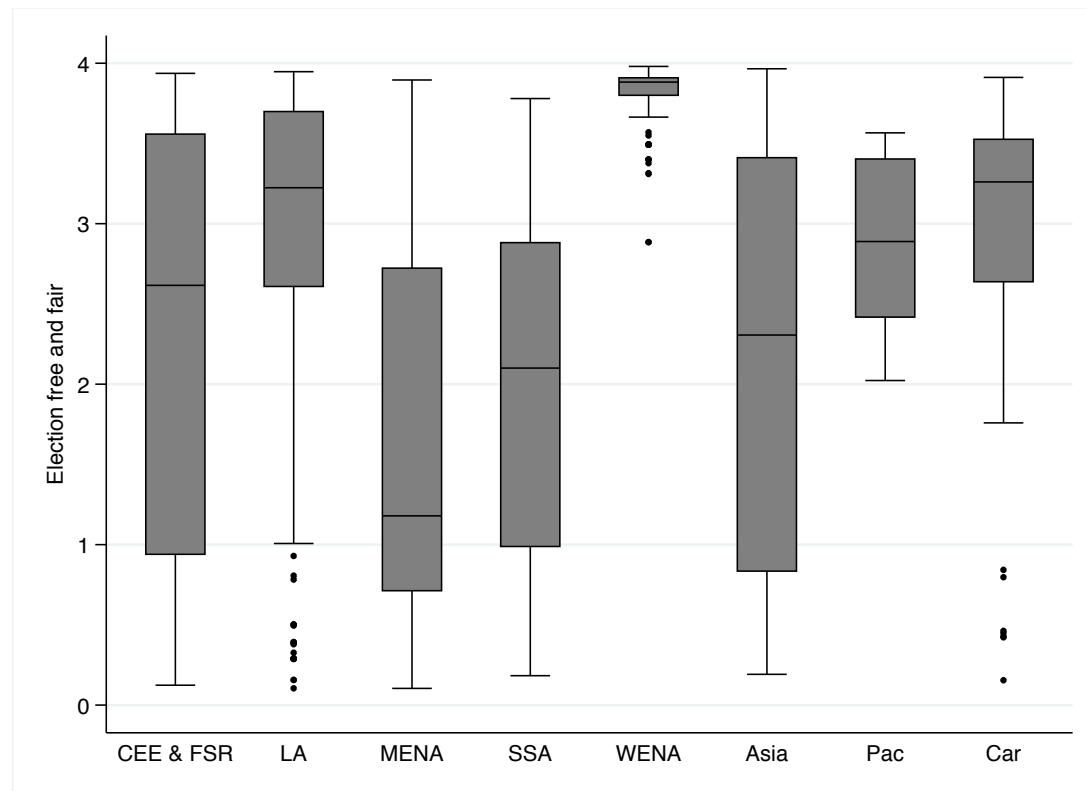


Source: V-Dem Dataset v5. (Coppedge et al. 2015a).

conception of electoral malpractice or election quality, other definitions emphasize the more narrow set of intentional forms of manipulation that political actors can use to subvert the electoral process (Vickery and Shein 2012; Darnolf 2011). Since our theoretical framework emphasizes political actors' intentionality in choosing between different types of electoral manipulation, we use the term electoral manipulation when discussing actor tactics. We also use the term election integrity to denote the overall quality of the election. See *reference blinded for review* for an overview and discussion of the different conceptualizations and measurements used to study election integrity.

The average level of integrity of elections between 1974 and 2012 shows large variation both between and within regions. The worst elections are found in the Middle East where the average election recorded “significant irregularities that affected the outcome” followed by Africa and Asia where the typical election also experienced some degree of manipulation but it was less clear to what extent this affected the outcome of elections.³

Figure 2. Election integrity in different regions of the world (1974-2012)



Note: CEE & FSR = Central and Eastern Europe & Former Soviet Republics; LA = Latin America; MENA = Middle East and North Africa; SSA = Sub Saharan Africa; WENA = Western Europe & North America; Asia = Asia; Pac = Pacific; Car = Caribbean. The outliers in Latin America are elections in Central America held before 1990. The outliers in Western Europe & North America are the elections in Cyprus, the 1994 elections in Italy, the

³ The measure of election integrity used here is based on the V-Dem country expert survey question: “Taking all aspects of the pre-election period, election day, and the post-election process into account, would you consider this national election to be free and fair?” Answer categories are: “0: No, not at all. The elections were fundamentally flawed and the official results had little if anything to do with the ‘will of the people’ (i.e., who became president; or who won the legislative majority). 1: Not really. While the elections allowed for some competition, the irregularities in the end affected the outcome of the election (i.e., who became president; or who won the legislative majority). 2: Ambiguous. There was substantial competition and freedom of participation but there were also significant irregularities. It is hard to determine whether the irregularities affected the outcome or not (as defined above). 3: Yes, somewhat. There were deficiencies and some degree of fraud and irregularities but these did not in the end affect the outcome (as defined above). 4: Yes. There was some amount of human error and logistical restrictions but these were largely unintentional and without significant consequences” (Coppedge et al. 2015b). We use the measurement model corrected continuous variable for election integrity, rescaled so as to vary from 0 to 4.

first two elections in Portugal and the United States in 1974 and 2000. The outliers in the Caribbean are the elections in Guyana and Haiti before 1989. Source: V-Dem Dataset v5. (Coppedge et al. 2015a).

Elections are complex processes: starting from the pre-election legal framework, registration and campaigning, to the actual vote on election-day, to post-election vote counting and adjudication of disputes (Elkliit and Reynolds 2005; Martinez i Coma and van Ham 2015; Norris 2014, 2015). Manipulation can occur at every stage in the process, providing a large choice set of manipulative tactics for political actors seeking to rig elections (Schedler 2002a). Yet, throughout the electoral cycle, manipulation can be aimed at two ‘objects’: institutions and actors (parties and/or candidates, and voters).

Institutional-level manipulation is typically aimed at tilting the level playing field of elections, and includes manipulation of the legal framework, the electoral system and the electoral management body. The legal framework can be manipulated well before election-day to favor the incumbent, for example by introducing legal requirements for political candidates that allow exclusion of opposition on legal grounds (such as the exclusion of opposition candidates on the basis of residency requirements, ethnic background, etc). Likewise, changing electoral system rules can be an effective and seemingly innocuous way to fragment opposition and undermine possibilities for opposition coordination. Manipulation of district demarcation through gerrymandering is also a form of electoral manipulation that is found even in some established democracies (e.g. USA). Electoral management bodies can be staffed with partisan bureaucrats enabling incumbents to influence monitoring of election campaigns (including important aspects as campaign media and finance); bias administrative practice before and during election day; and, if needed, tweak vote counts and tabulation. Electoral dispute adjudication typically fall under the prerogative of the judiciary or electoral management bodies, but when such institutions are vulnerable to political capture, incumbents can also often influence post-election dispute adjudication and curb opposition calls for electoral reform.

Manipulation of political opponents and voters can be achieved throughout the electoral cycle by either coercion or co-optation. Before the elections, party and candidate registration can be influenced by intimidating opposition parties and candidates to not participate in elections, or by co-opting them to cooperate with the ruling party or candidate. Likewise, voter registration can be manipulated either by inflating voter registration numbers in pro-incumbent areas or by ‘discouraging’ registration of voters in opposition areas. During the campaign period, intimidation of candidates and voters and disturbance of campaign rallies are not uncommon. Voting process irregularities include coercion or co-optation of voters either by intimidating voters to abstain or vote in favor of the preferred candidate, or by offering voters a

material reward in return for a vote in favor of a certain candidate (e.g. Schaffer 2007. In general, “sticks and carrots” are commonly applied (van Ham and Lindberg 2015; Year in Elections 2015; Bratton 2008; Collier and Vicente 2013).

It is important to note that while all these tactics are available to incumbents, the scope is much more limited for opposition actors. While they certainly engage in electoral manipulation at times (Bratton 2008; Collier and Vicente 2013), opposition actors generally do not have the same access to institutional manipulation and means of coercion, and often have much less of the resources needed for effective co-optation. Hence we would expect the opposition to engage somewhat less in electoral manipulation as compared to incumbents, and we would also expect them to be more strategic about when to use electoral manipulation, for example only engaging in manipulation in electoral contests where they stand a chance of winning the election or push for regime change.⁴

Given the availability of these manipulative tactics, how do political actors choose between different manipulative tactics? We argue that actors seeking to manipulate elections are likely to consider which forms of electoral manipulation are most effective in achieving electoral gain, and to compare the relative effectiveness of manipulative tactics to their costs.⁵ The attractiveness or utility of a specific form of manipulation can then be expressed as a simple cost-benefit calculation:

$$U(m_{ij}) = E(m_{ij}) - C(m_{ij}) \quad (1)$$

where subscript i connotes the type of manipulation, and j connotes the particular context in which the elections take place. The utility U of manipulation type i in context j is defined by the effectiveness E of manipulation type i in context j minus the costs C of manipulation type i in context j .

The intuition is that perceptions of effectiveness depend on the size of electoral gain weighted by the expected probability of the electoral gain materializing. For example, directly manipulating the tabulation of votes allows an actor not only to appropriate more votes but also

⁴ We would also expect incumbent and opposition tactics to be reactive to their opponents’ choice of tactic. However, since we do not have empirical data that is sufficiently detailed to distinguish who engaged in electoral manipulation, we do not further develop that theoretical argument here, and focus instead on the incumbent.

⁵ Note that for the purpose of developing our argument about choices between different manipulative tactics, we assume that the prior decision about whether to engage or not in electoral manipulation has already been made, i.e. we assume that actors are equally motivated to engage in electoral manipulation. We thus conceive of decision-making about electoral manipulation to be a two-step process where actors first decide whether or not to engage in manipulation, and subsequently decide what types of manipulation to engage in. The question addressed in this paper is hence: given that actors have an interest in manipulating elections, how do they decide to engage in a certain type of manipulative tactic, or combination of tactics?

to be certain about its effect on electoral gain. Compare this to an action like vote buying where agency loss is a significant challenge (Vicente 2014; Stokes et al. 2013).

Turning to costs, actors seeking to manipulate elections face two types: direct and potential costs. Direct costs are financial and organizational costs associated with organizing manipulation, or what Birch (2011) refers to as ‘implementation costs’, such as the costs to buy votes, select and pay people to stuff ballot boxes, bribe judges, journalists and election officials, etc. These can be quite substantial. Vote buying, for example, requires large organizational resources in terms of local networks of brokers that contact voters and monitor their behavior in the polling booth, as well as substantial financial resources to reward voters (Schaffer 2007; Stokes et al. 2013). Direct costs are also certain: actors have to pay them upfront.

Potential costs on the other hand are only incurred if manipulation is discovered and sanctioned. Three aspects are important here: the presence of formal sanctions, the presence of informal sanctions, and the visibility of manipulation. Manipulation is sanctioned formally when electoral legislation bans certain types of behavior and electoral management bodies and/or judiciaries sanction violations with fines, exclusion, jail, or other consequences. Informal sanctions occur when actors violate norms proscribing certain types of behavior in elections, and as a consequence loose legitimacy in the eyes of citizens, elites and/or the international community, which could potentially lead to vote losses, protests, or even regime change (Norris 2014; Norris et al. 2015). However, whether or not actors get away with manipulation, or conversely, have to bear the costs of formal and informal sanctions, depends on the visibility of manipulation. Hence, the size of potential costs depends *both* on the presence of sanctions as well as the visibility of manipulation (see also Schedler 2013, 274). The utility function of different types of manipulation then becomes:

$$U(m_{ij}) = E(G)_{ij} - Cd_{ij} - v_{ij} (Sf_{ij} + Si_{ij}) \quad (2)$$

where subscript i connotes the type of manipulation, and j connotes the particular context in which the elections take place. The utility U of manipulation type i in context j is defined by the effectiveness of manipulation which is the probability p of electoral gain G materializing when using manipulation type i in context j ; minus the direct costs Cd for manipulation type i in context j , minus the potential costs Cp of manipulation type i in context j ,

which consist of the product of visibility v and the sum of formal sanctions S_f and informal sanctions S_i .⁶

In the interest of parsimony and to derive a set of testable empirical implications, we assume that effectiveness and direct costs are constant while we allow potential costs to vary by regime type.⁷ In hegemonic electoral authoritarian regimes, institutions that could formally sanction manipulation are likely to be captured to such a degree that formal sanctions are only an abstract possibility for incumbents. Likewise, levels of political repression –or simply the credible threat of repression– should be high enough to render informal sanctions by citizens and opposition in the form of protests or abstention unlikely, and opposition is typically so limited in these regimes that there are few or no viable alternatives. In the absence of both formal and informal sanctions, potential costs reduce to zero, and it follows that in this case, visibility of electoral manipulation is not an important factor in the incumbent's utility calculations.⁸

If the regime shifts to competitive electoral authoritarianism and on to electoral democracy, the size of potential formal and informal sanctions increase, and hence minimizing the visibility of manipulation becomes more important. In these cases, the costs of formal and informal sanctions are only suffered if manipulation is detected, and in terms of indirect costs the visibility of types of manipulation should be expected to be the most important factor in determining an actor's choice.

Table 1 below shows how expected effectiveness, direct costs, visibility, and formal and informal sanctions affect the attractiveness of specific types of electoral manipulation. For the sake of parsimony we group manipulative tactics in three forms: institutional-level manipulation aimed at tilting the level playing field of elections; coercion of political opponents and voters; and co-optation of political opponents and voters.

⁶ Note that visibility can be read as a probability as well, i.e. the probability of formal and informal sanctions occurring.

⁷ In our discussion below we follow an established typology of relevant electoral regimes that distinguishes between hegemonic and competitive electoral authoritarian regimes, and electoral democracies. We are simplifying this literature to some extent since the present paper is not the place to elaborate on the details of differences and similarities of the typologies we refer to. For present purposes, the basic thrust of them is arguably the same, see e.g. Diamond 2002; Howard and Roessler 2006; Levitsky and Way 2010; Lindberg 2009; Schedler 2006, 2009, 2013.

⁸ In fact, as Simpser (2013) and Schedler (2013) argue, in these cases incumbents may actively choose to render manipulation visible to demonstrate regime strength and discourage future opposition.

Table 1. Choosing between different tactics of electoral manipulation

| | Institutional manipulation | Coercion | Co-optation |
|----------------------------------|----------------------------|----------|-------------|
| <i>Effectiveness</i> | | | |
| Amount & security electoral gain | high | medium | low |
| <i>Direct costs</i> | | | |
| Financial/organisational costs | low | medium | high |
| <i>Attractiveness</i> | | | |
| | +++ | ++ | + |
| <i>Potential costs</i> | | | |
| Visibility | varies | varies | varies |
| Formal sanctions | - | high | low |
| Informal sanctions | high | high | low |

Note that institutional manipulation directly undermines formal sanctions, hence if effective, there are no costs associated with formal sanctions. Note that the visibility of manipulative strategies varies depending on how subtly actors engage in electoral manipulation; all three types of manipulation can be carried out in more and less visible ways.

If potential costs can be discounted, and direct costs and effectiveness are the main criteria for choosing manipulative tactics, then manipulating the legal framework and administration of elections should be the preferred set of tactics. Institutional manipulation allows an incumbent to for example exclude political opponents from the electoral race, to undermine the capacity of the electoral management body to monitor electoral conduct, and to directly influence vote counts and tabulation. Institutional manipulation should therefore be the most effective form of manipulation as it provides access to greater electoral gain than coercion and co-optation, and does so with greater certainty. Also, manipulating institutions is arguably the most cost-efficient way to manipulate elections. Moreover, the key advantage of successful institutional manipulation is not only the electoral advantage gained from tilting the level playing field, but also the fact that formal sanctions are no longer effective if oversight institutions are themselves successfully captured.

If manipulating institutions is not feasible however, coercive tactics are expected to be the second best option. Intimidation of political candidates and voters requires only limited financial resources, and is hence likely to be a “cheaper” form of manipulation than co-opting opposition candidates through financial rewards or co-opting citizens through vote buying (Bratton 2008; Collier and Vicente 2013). Moreover, intimidation of candidates and voters may

well be a more effective form of manipulation, as intimidation is more likely to secure compliance and may have effects beyond the candidates and voters directly targeted.⁹

Finally, co-optation should be the most costly forms of manipulation. It requires substantial financial resources, or at a minimum credible promises of a share of the incumbents' access to state resources, and in the form of vote buying also necessitates considerable organizational resources (Stokes et al. 2013; Schaffer 2007). At the same time, co-optation should be the least effective form of electoral manipulation since compliance is uncertain and cannot always be monitored.¹⁰ Hence, it should be less protuberant as long as other types of manipulation are available.

Following this reasoning, we expect actors to prefer institutional manipulation over coercion, and coercion over co-optation. However, so far we have only considered effectiveness and direct costs of manipulation. Potential costs should also factor in actors' choices for different manipulative tactics. Yet, potential costs can be expected to differ substantially depending on the context in which elections take place, and in particular, as alluded to above in our discussion of variation in potential costs by regime type, by the level of democratization.

Based on intuitions from empirical democratic theory, we expect democratization to affect potential costs in three ways.¹¹ First, democratization amplifies the visibility of manipulation if and when a progressively free media reports on irregularities (Birch 2011; *reference blinded for review*). While institutional manipulation, coercion and co-optation can be more and less visible (for example, coercion of political candidates can take place behind the scenes or conversely be highly visible), an independent media will make it more difficult to hide. Secondly, democratization makes formal sanctions of electoral misconduct more likely if and when a more independent judiciary results in a higher probability of prosecution. Thirdly, democratization is also likely to increase informal sanctions in response to manipulation if and when norms and expectations about what is acceptable behaviour change, thus raising reputational and legitimacy costs. In sum, we expect that democratization will increase both the visibility of manipulation as well as the severity of formal sanctions and informal sanctions, thereby raising the potential costs of manipulation.

⁹ Bratton (2008) for example finds a much stronger effect of threats of violence than vote buying on abstention in Nigerian elections.

¹⁰ Research on vote buying suggests accepting bribes and still voting ones preferred candidate or party is quite frequent (Bratton 2008; Schaffer 2007).

¹¹ Following van Ham and Lindberg (2015, 524) we conceptualize democratization as ‘Democratization occurs when the quality of the overall regime, i.e. the composite of partial regimes, improves over time. Note that the specific set of partial regimes that scholars consider necessary to define democracy differs, as democracy has different normative meanings and different empirical varieties (Collier and Levitsky 1997; Lindberg et al. 2014).’

Since institutional capture is the anti-thesis of democratization, we expect institutional manipulation to decline linearly as democratization progresses. The empirical implication is that when horizontal checks and balances are strengthened, judiciaries become increasingly independent, electoral management bodies develop autonomy, and the rule of law improves; and as a result manipulation of the legal framework and fraudulent administration of elections are increasingly less viable in a linear fashion, as expressed in hypothesis 1:

Hypothesis 1: Increasing levels of democracy lead to a linear decline in institutional manipulation of elections.

When institutional manipulation becomes less viable, we expect incumbents to turn to the second best option – coercion. The intuition is that coercion increases during initial stages of democratization because the cheaper and more effective institutional manipulation becomes less viable. At the same time, with some amount of democratization elections progressively become more of an important focal point for power struggles, further encouraging violence and intimidation from both incumbents and opposition (Schedler 2002b; Reif 2009; Norris et al. 2015).

However, high levels of intimidation may become visible to voters and other political actors, raising the probability of informal sanctions in the form of vote losses, protests, or retaliatory violence. Therefore, if and when democratization progresses further coercion is expected to decline when the costs of both formal and informal sanctions become too high. Formal monitoring and sanctioning of violence and intimidation naturally gain strength, but we also expect changing norms to proscribe violence and coercion, and such changing expectations about the behaviour of parties and leaders lead to increasing legitimacy losses for actors enacting such forms of manipulation. Empirically, this translates into an expectation that initial democratization is associated with an increase in coercion, followed by a subsequent decline when the level of democracy improves further, as expressed in hypothesis 2:

Hypothesis 2: Increasing levels of democracy lead to an initial increase in coercion around elections, followed by decline as the level of democracy increases further.

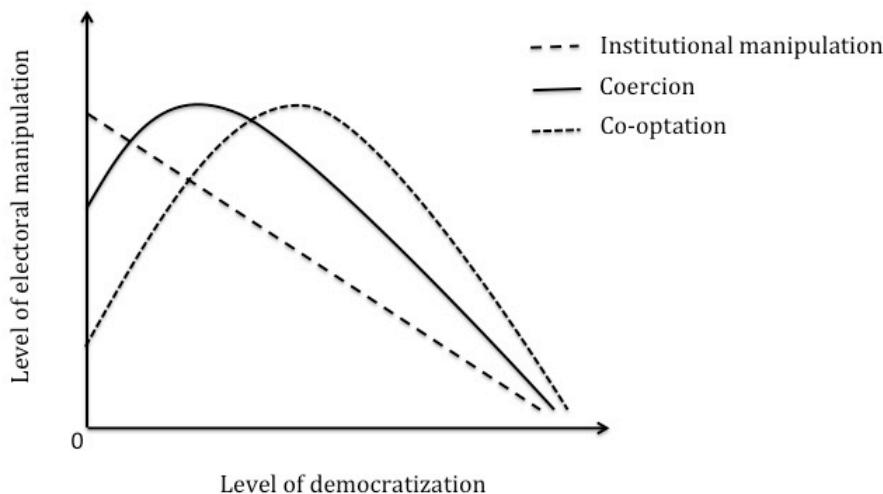
If both institutional manipulation and coercive tactics become less attractive, we predict that incumbents are increasingly incentivized to turn to co-optation tactics. This is based on the

intuition that the relative costs in terms of formal and informal sanctions are lower for co-optation tactics. Legal penalties are generally lower for co-optation tactics such as vote buying than for engaging in violence and intimidation. Moreover, the reputational and legitimacy costs associated with vote buying are likely to be lower than those associated with coercive manipulation strategies. This is especially true when distributing gifts as part of electoral campaigns is culturally acceptable or even expected as in many countries around the world (e.g. Lindberg 2010; Schaffer 2007; Stokes 2005; Vicente 2014). Empirically, the expectation thus is that co-opting tactics such as vote buying increase with democratization, but only after institutional manipulation and coercion have become less viable tactics of manipulation. Eventually however, as democratization progresses, we would expect vote buying too to decline as and when norms develop further and vote buying comes to be seen as unacceptable behaviour in democratic elections, as expressed in hypothesis 3:

Hypothesis 3: Increasing levels of democracy lead to an initial increase in co-optation around elections, followed by decline as the level of democracy increases further.

In sum, we expect democratization to shape actors' choices for specific types of manipulation tactics. We expect that as democratization progresses, the potential costs of manipulation increase, as democratization increases both the visibility of manipulation and the formal and informal sanctions on actors engaging in manipulation. Combined with our expectation that, based on considerations of effectiveness and direct costs, actors are likely to prefer institutional manipulation over coercion, and coercion over co-optation, we should see shifts from the former to the latter as democratization progresses. As a consequence, we expect to find that institutional manipulation decreases linearly as democratization increases, while we expect both coercion and co-optation to initially increase and later decrease as democratization progresses, with coercion declining earlier than co-optation. Figure 3 presents our intuition visually.

Figure 3. Democratization and tactics of electoral manipulation



Note that the causal mechanism that we suggest is that when the democratic quality of *other partial regimes than elections* improve this changes the cost considerations for political actors to engage in electoral manipulation. In particular, we are envisioning that partial regimes exogenous to elections such as civil liberties, freedom of the media, and the rule of law, have this type of effect. To limit endogeneity in our subsequent empirical analyses, we use an aggregate measure of democracy that excludes measures associated with elections. In addition, we also test our arguments about the effect of changes in media freedom and judiciary independence on choices of manipulative tactics directly.

3. Data & methods

For data on tactics of electoral manipulation we use version 5 of the new Varieties of Democracy dataset (Coppedge et al. 2015a, b, c).¹² We limit our sample to elections that took place in electoral regimes between 1974 and 2012, which leaves us with 1506 elections in 160 electoral regimes worldwide, ranging from electoral authoritarian regimes to liberal democracies.

The V-Dem dataset includes data on five types of electoral manipulation: electoral management body autonomy, party bans, government intimidation, election violence, and vote buying.¹³ To measure electoral management body autonomy, experts were asked to evaluate: “Does the Election Management Body (EMB) have autonomy from government to apply election laws and administrative rules impartially in national elections?” Answers could be given on a 5-point scale varying from “No. The EMB is controlled by the incumbent government, the

¹² The V-Dem dataset includes data on over 350 indicators of democracy in 173 countries around the world from 1900 until 2012 (for 60 countries also 2013-2014), engaging over 2,600 country experts worldwide to collect data. The country-expert data is combined into country-year estimates using a state-of-the-art Bayesian ordinal item-response theory model developed by a set of specialized methodologists (Pemstein et al. 2015). For more information about the project, codebook and data, see: <https://v-dem.net>.

¹³ A question was also asked on “other irregularities” that occurred in the election. However since this is a residual category including many different types of irregularities we don’t include it in our analysis here.

military, or other *de facto* ruling body.” to “Yes. The EMB is autonomous and impartially applies elections laws and administrative rules.”¹⁴

To measure party bans, experts were asked to evaluate: “Are any parties banned?”. Answers could be given on a 5-point scale varying from “Yes. All parties except the state-sponsored party (and closely allied parties) are banned.” to “No. No parties are officially banned.”¹⁵

Government intimidation was measured by asking experts: “In this national election, were opposition candidates/parties/campaign workers subjected to repression, intimidation, violence, or harassment by the government, the ruling party, or their agents?”. Answer categories varied on a 5-point scale from “Yes. The repression and intimidation by the government or its agents was so strong that the entire period was quiet.” to “None. There was no harassment or intimidation of opposition by the government or its agents, during the election campaign period and polling day.”¹⁶

Election violence was measured by asking experts: “In this national election, was the campaign period, election day, and post-election process free from other types of violence related to the conduct of the election and the campaigns (but not conducted by the government, the ruling party, or their agents)?” Answers varied on a 5-point scale from “No. There was widespread violence between civilians occurring throughout the election period, or in an intense period of more than a week and in large swaths of the country. It resulted in a large number of deaths or displaced refugees.” to “Peaceful. No election-related violence between civilians occurred.”¹⁷

Finally, vote buying in elections was measured by asking experts whether “In this national election, was there evidence of vote and/or turnout buying?”. Again answers could vary along a 5-point scale from “Yes. There was systematic, widespread, and almost nationwide vote/turnout buying by almost all parties and candidates.” to “None. There was no evidence of vote/turnout buying.”¹⁸

We employ these five indicators of electoral manipulation to get leverage on the three hypotheses, considering manipulation of EMB autonomy and party bans as forms of institutional manipulation, government intimidation and election violence as forms of coercion, and vote and turnout buying as forms of co-optation. All variables were reversed so that higher

¹⁴ The exact answer categories can be found in Coppedge et al. 2015b.

¹⁵ Ibid.

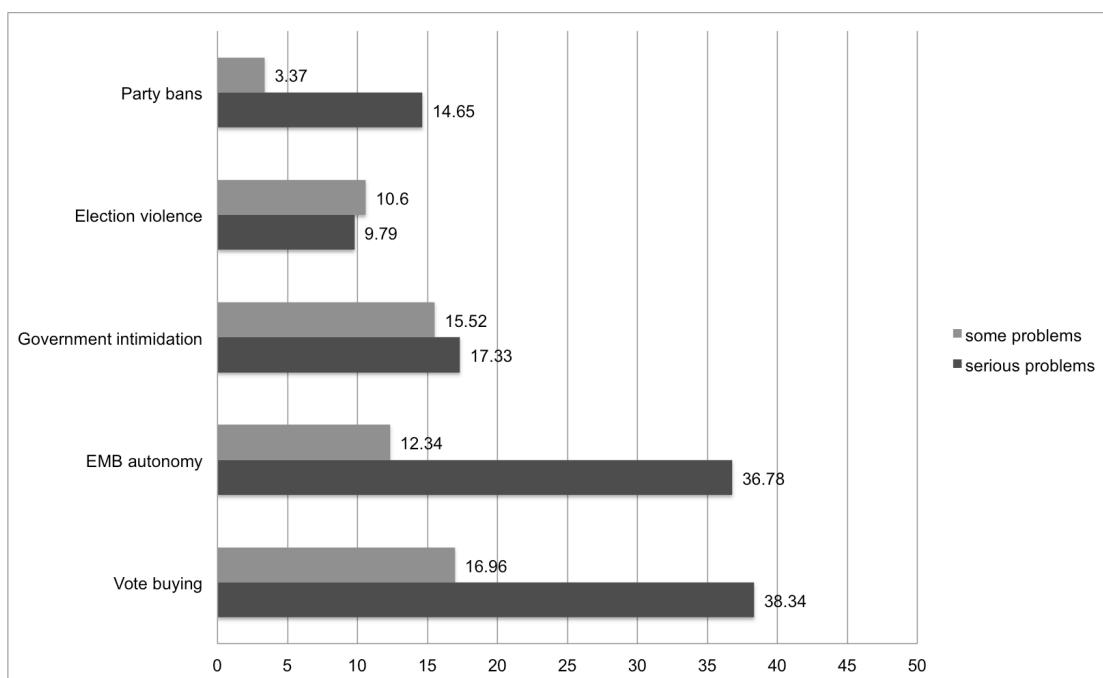
¹⁶ Note that other types of clearly distinguishable civil violence, even if politically motivated, during the election period were *not* included in the indicator for government intimidation. The exact answer categories can be found in the Coppedge et al. 2015b.

¹⁷ Ibid.

¹⁸ Ibid.

scores indicate higher manipulation. Figure 4 illustrates the variation in the data by presenting the proportion of elections that experience “serious problems” and “some problems” with each of the irregularities listed in our sample of electoral regimes between 1974 and 2012. Problems with party bans are the least common in our sample (18% of elections). Substantial election violence is also relatively uncommon (20% of elections), while government intimidation is present in a third of all elections in the sample (33% of elections). Problems with the autonomy of electoral management bodies (EMBs) are much more prevalent. Almost half of the elections in the sample suffered problems with EMB autonomy (49%), and in more than one third (37%) of the elections these problems were serious. However, by far the most common type of electoral manipulation is vote buying. Substantial levels of vote buying occurred in 55% of the elections and in 38% of elections problems with vote buying were serious, indicating widespread and pervasive vote buying practices.

Figure 4. Types of electoral manipulation in electoral regimes (1974-2012)



Source: V-Dem Dataset v5. (Coppedge et al. 2015a). Raw ordinal data used to calculate proportions of elections experiencing types of electoral manipulation. Scores 0 and 1 are considered to indicate “serious problems” and score 2 is considered to indicate “some problems”.

To measure the level of democratization with an indicator that is sufficiently independent of electoral procedures in order to limit issues of endogeneity, we use the Freedom House civil liberties indicator (cf. Lindberg 2006; 2009; for further discussion and justification). We treat this as an indicator of a partial regime of democracy associated with *de facto* democratic

quality of civil liberties, access to justice and rule of law that also has the advantage of being independent of the V-Dem data. We lag it one year, measuring civil liberties in the year before the elections took place. To test the robustness of our results, we also carried out the analyses presented here with direct measures of the partial regimes that we expect to increase visibility of and sanctions on electoral manipulation respectively, by testing the effect of freedom of media and independence of the judiciary respectively, using data from the Cingranelli-Richards (CIRI) Human Rights Dataset available in the Quality of Government dataset (Cingranelli and Richards 2010; Teorell et al. 2015).¹⁹

We also include a number of controls. The existing literature provides expectations that manipulation in general and vote buying in particular should be higher in countries with large proportions of poor citizens (Birch 2011; Schaffer 2007; Norris 2015). Vote buying is also expected to be more prevalent in countries with natural resources providing incumbents access to financial resources to fund more extensive vote buying (Collier and Vicente 2012). Economic growth can have a similar effect and hence we also include this as a control variable. Finally, it has been reported that citizens in rural areas may be more vulnerable to electoral manipulation, and hence we include a measure of urbanization as control (Birch 2011; Hicken 2007; Bratton 2008). In addition to these controls, for election violence we expect the relative “costs” of violence to be lower in countries that experienced civil war in the years preceding the elections. Demilitarization after civil war is difficult and almost never fully successful, increasing “easy” access of political factions to weapons that can be used at times of elections. We control for other potential confounders by including country and year fixed effects in our models.

To measure poverty, economic growth and resources respectively, we use data on GDP per capita (current US\$), data on GDP per capita growth (annual %), total natural resources rents (% of GDP), and urban population (% of total) from the World Development Indicators.²⁰ The dummy variable indicating whether the country experienced an internal armed conflict in the year of the elections is from Clio Infra, drawing on Brecke (2001).²¹ Finally, we include type of election (legislative, executive, or concurrent) as control variable since executive elections might be the subject of greater attempts at manipulation.

The estimation strategy is time series cross-national analysis with fixed country and year effects. We first estimate a simple regression model including only the level of democracy as predictor and country and year fixed effects. We then add controls for other manipulation

¹⁹ These models are reported in the online Appendix.

²⁰ <http://data.worldbank.org/data-catalog/world-development-indicators>. Data collected January 5, 2016.

²¹ These data are available at clio-infra.eu and in the Varieties of Democracy dataset, v5. Note that missing observations are coded as non-conflict (0). Re-running the analyses with missing observations as missing does not change the substantive findings presented here.

tactics, as it is likely that choices for manipulation tactics are related to choices for other tactics, along with the more general control variables outlined above. Finally, we report the results of several robustness checks in the online Appendix to this paper. Specifically, we report model estimates using media freedom and independence of the judiciary as alternative measures of the level of democracy in the year before elections, as well as model estimates using seemingly unrelated regression to correct for correlated error terms across our models of different electoral manipulation types.²² Results remain substantially unchanged with these alternative models.

4. Results

Table 2 presents the results of models estimating the main effects of democratization on tactics of manipulation with only country and year fixed effects. Our first hypothesis regarding the expected linear decline of institutional manipulation as democratization progresses appears to be born out by the data. Models 1 and 2 show substantial and significant declines in manipulation of election management body (EMB) autonomy and party bans at higher levels of democracy. The second hypothesis regarding an expected curvilinear effect of coercion as democratization progresses is only partially supported. While election violence (Model 4) indeed appears to increase in the early stages of democratization and decline again at higher levels of democracy, government intimidation (Model 3) appears to decline linearly with the level of democracy.²³ Finally, the third hypothesis is corroborated: vote buying increases substantially as democratization progresses, only to decline at higher levels of democracy.

²² We also report models using a smaller sample excluding single-party elections in the online Appendix, as it could be argued that one-party elections don't require any other form of electoral manipulation. Results remain substantially unchanged with this smaller sample of elections. Replication data and documentation is available on the website of the authors: [insert website].

²³ The positive effect for the squared democracy term in model 3 predicting government intimidation is counter-intuitive, and probably driven by the fact that at higher levels of democracy, government intimidation declines at an increasingly slower rate, as shown in the predicted values graph Figure 5.

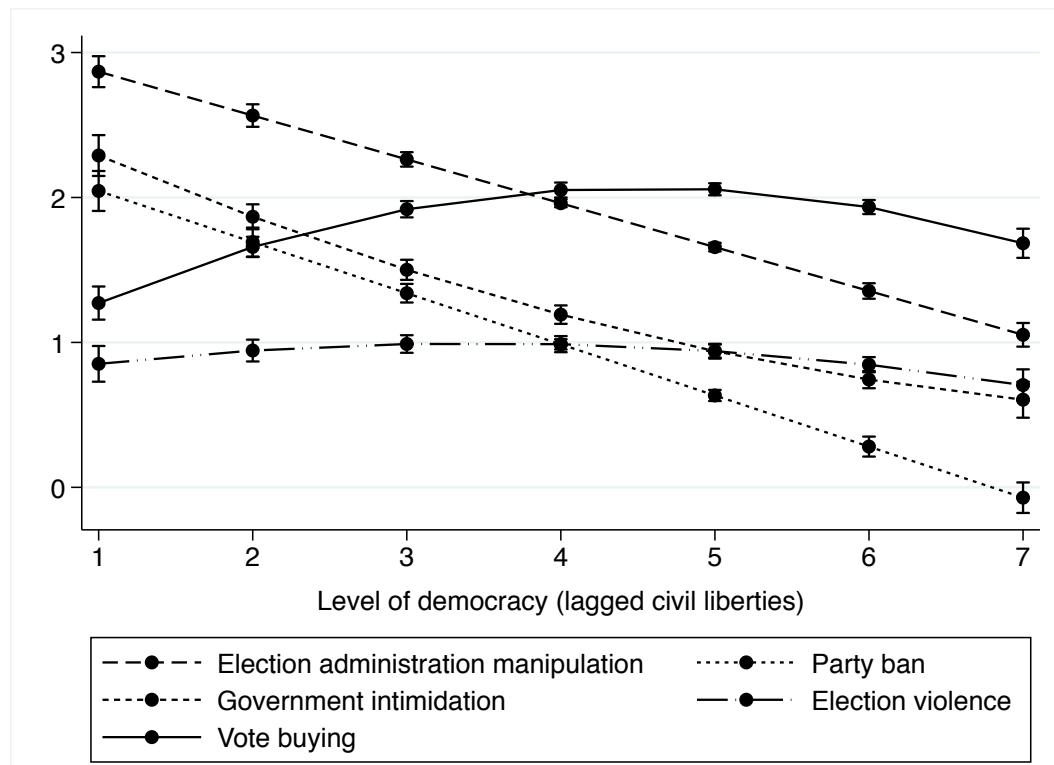
Table 2 – Democratization and tactics of electoral manipulation in elections (1974-2012)

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|------------------------------------|----------------------------------|---|---|-----------------------------------|
| Freedom House civil liberties score reversed lagged t-1 (1-7) | -0.303*** (0.015) | -0.353*** (0.020) | -0.508*** (0.063) | 0.161** (0.055) | 0.579*** (0.051) |
| Freedom House civil liberties score reversed squared lagged t-1 (1-49) | | | 0.028*** (0.008) | -0.023*** (0.007) | -0.064*** (0.006) |
| Constant | 3.957*** (0.177) | 2.208*** (0.229) | 3.365*** (0.226) | 0.824*** (0.197) | 1.611*** (0.183) |
| R-squared (overall) | 0.884 | 0.759 | 0.804 | 0.804 | 0.879 |
| N level 1 (elections) | 1506 | 1506 | 1506 | 1506 | 1506 |
| N level 2 (countries) | 160 | 160 | 160 | 160 | 160 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation.

As an illustration of substantive differences between the prevalence of manipulative tactics at different levels of democracy, Figure 5 shows the predicted levels of manipulation by level of democracy. At the lowest levels of civil liberties, the use of institutional manipulation is highest: manipulation of EMB autonomy and party bans. Contrary to the expectation, coercion (as measured by government intimidation) is at similar levels and follows the same linear downward trend as institutional manipulation as countries democratize. In line with the expectation, vote buying increases markedly in democratizing regimes, only to decline at higher levels of democracy. Finally, election violence increases only slightly as countries democratise, and declines at higher levels of democracy.

Figure 5. Predicted values of electoral manipulation by level of democracy



Predicted values of models 1 – 5, Table 2. Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Level of democracy is reversed as well and varies from low levels of civil liberties to high levels of civil liberties.

Yet, as we argued above, choices for manipulative tactics are unlikely to be independent of choices for other tactics, and hence including other manipulative tactics and additional control variables should provide a stronger test of our hypothesis. Table 3 shows results of these models. As expected, the effects of level of democracy are attenuated somewhat with these specifications. Yet, with the exception of election violence, the results are robust to the inclusion of controls. Hypothesis 1 continues to get support in models 1 and 2: institutional manipulation of EMB autonomy and party bans decline linearly with democratization. Hypothesis 3 is also corroborated: vote buying increases substantially in the early stages of democratization, and declines at high levels of democracy. Only hypothesis 2 is not supported. Consistent with the findings presented in Table 1, government intimidation rather moves in tandem with institutional manipulation, declining linearly as democratization progresses. Moreover, the curvilinear effect of democratization on election violence is no longer significant once the control variable for civil war is included. This suggests that the curvilinear relationship

between election violence and democratization noted in earlier research may be due rather to the greater likelihood of countries going through civil war in the early stages of democratization.

Table 3 also provides insight into trade-offs between the five different types of manipulation. Rather than the expected trade off between institutional manipulation and coercion, the results suggest that these tactics go hand in hand. The manipulation of EMB autonomy and extent of party bans are strongly and positively related to government intimidation. Yet, there is a trade-off between institutional manipulation and election violence: If there are extensive party bans, election violence is lower and vice versa. Coercion and co-optation also appear to go well together, government intimidation and election violence are consistently positively related to vote buying. However, we do find the expected evidence for trade-offs between institutional manipulation and co-optation: Vote buying is significantly lower if there are more extensive party bans.

These findings suggest that actors seeking to manipulate elections will try to combine multiple manipulative tactics, if and when these tactics are available. Democratization changes the availability of tactics, leading to shifts in the prevalence of manipulative tactics used. The only exception to this ‘use all if you can’ rule of thumb is party bans: if party bans can be effectively imposed, some of the more costly strategies, such as vote buying and election violence, are less needed by the incumbent.²⁴

The perhaps most significant finding is the combination of the support for a linear trade-off of institutional manipulation with democratization on the one hand, and the curvilinear relationship between vote buying and democratization on the other hand. Vote buying increases as democratization progresses only to decline at later stages of democratization, while election administration manipulation and party bans decline linearly.

²⁴ And, in addition, opposition may judge engaging in election violence and vote buying not to be in their strategic interest in these cases, further lowering the overall levels of election violence and vote buying.

Table 3 – Democratization and tactics of electoral manipulation in elections (1974-2012)

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| Freedom House civil liberties score reversed lagged t-1 (1-7) | -0.086*** (0.015) | -0.142*** (0.019) | -0.239*** (0.063) | -0.110+ (0.065) | 0.432*** (0.055) |
| Freedom House civil liberties score reversed squared lagged t-1 (1-49) | | | 0.020** (0.007) | 0.007 (0.007) | -0.042*** (0.006) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation (-2.9 to +1.6) | | 0.427*** (0.036) | 0.573*** (0.031) | 0.027 (0.036) | 0.144*** (0.031) |
| Party bans (-2.4 to +1.3) | 0.259*** (0.022) | | 0.100*** (0.028) | -0.174*** (0.028) | -0.209*** (0.024) |
| Government intimidation (-3.3 to +1.9) | 0.418*** (0.022) | 0.135*** (0.032) | | 0.174*** (0.030) | 0.189*** (0.026) |
| Election violence (-2.6 to +2.2) | 0.018 (0.025) | -0.204*** (0.031) | 0.168*** (0.029) | | 0.203*** (0.025) |
| Vote buying (-2.8 to +1.7) | 0.130*** (0.028) | -0.358*** (0.035) | 0.239*** (0.033) | 0.260*** (0.033) | |
| Constant | 1.606*** (0.355) | -0.698 (0.460) | -0.118 (0.437) | 1.449** (0.443) | 1.931*** (0.384) |
| R-squared (overall) | 0.939 | 0.844 | 0.876 | 0.855 | 0.921 |
| N level 1 (elections) | 1320 | 1320 | 1320 | 1320 | 1320 |
| N level 2 (countries) | 152 | 152 | 152 | 152 | 152 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. All models include controls for GDP per capita (logged), GDP per capita growth (annual % of GDP), total natural resource rents as % of GDP, urban population as % of the total population. In addition, models for election violence include a control for civil war in the year of the elections. The full tables including results for control variables are available in the online Appendix.

Finally, we carried out a series of robustness checks (results are reported in the online appendix to this paper). First of all, we checked the robustness of our results to other measures of the non-electoral partial regime of democracy: replacing the level of civil liberties in the year before elections by a measure of freedom of media and independence of judiciary respectively. In models tracing electoral manipulation at different levels of media freedom we confirm all the findings reported here, with the exception of government intimidation. Conversely, when level of democracy is modeled instead by independence of the judiciary, we confirm our findings for government intimidation (and to a lesser extent for vote buying). This suggests that what matters for choices of electoral manipulation strategies is indeed the combination of visibility and formal sanctions, which may be best captured by a general measure of civil liberties and rule of law as the one used in this paper. Finally, results were checked using a smaller sample that excluded single party elections and with models using seemingly unrelated regression, and in both alternative model specifications the results remain substantively similar, as reported in the online appendix.

5. Conclusion

This paper investigates incumbents' choices of different tactics of electoral manipulation. The proposed theory should be relatively uncontroversial, suggesting that choices are based on a comparison of the effectiveness and costs of different manipulative tactics. To that basic intuition we add an argument that the level of democratization should condition the attractiveness of varying types of manipulation to incumbents.

Differentiating between institutional manipulation, coercive tactics, and co-optation we analyze the hypothesized trade-offs between these tactics of electoral manipulation and their relationships to democratization, in 1506 elections held by 160 electoral regimes worldwide between 1974 and 2012.

We argued that institutional manipulation is likely to be the least costly and most effective type of manipulation: electoral management institutions are highly accessible to incumbent political actors and manipulating the influence of electoral management institutions over the administration of elections and tabulation of results, as well as excluding opponents from the race through party bans, is likely to be most effective for achieving electoral gain. Institutional manipulation is followed by coercion as it requires relatively limited resources and is quite effective. Co-optation, operationalized here as vote buying- is the most costly and least effective type of manipulation, and hence we expect actors in general to prefer institutional manipulation and coercion over co-optation

However, the “menu of manipulation”, i.e. the strategies of electoral manipulation that are available to actors, are likely to differ depending on the context in which elections take place. For example, political actors will not be able to get away with manipulation of electoral institutions or intimidation in more developed democracies where independent media and judiciaries will denounce (and prosecute) such behavior. Manipulating electoral institutions and intimidation may really only be manipulative strategies available in more hegemonic electoral authoritarian regimes, where the rule of law is weaker and the state bureaucracy is more vulnerable to partisan capture. Hence, we expect that democratization will lead to increases in vote buying as “cheap” forms of electoral manipulation available to incumbents such as intimidation and manipulating electoral administration become less viable. Paradoxically, this means that as countries move towards democracy, we expect a shift in electoral manipulation strategies from institutional manipulation and coercion to vote buying. Hence, democratization will lead to an initial increase in vote buying.

Our empirical results confirm our theoretical expectations. We find that institutional manipulation and coercion decline linearly as democratization progresses, but vote buying first *increases* as democratization progresses, only to level off at the highest levels of democracy. This supports the intuition that when rulers start running out of “easy” and less costly means to stay in power and competition increases, they are forced to invest in the organizationally and financially costly attempt to stay in office by paying for it. In that sense, increased vote-buying is actually a good sign (sic). Worryingly however, while at higher levels of democracy, vote buying no longer increases, it declines only to some extent. This finding about the increase in money politics as the result of democratization poses new questions about the quality of democracy that are also relevant in established democracies, and underscores the importance of more research into the connection between money and politics globally.

A few caveats are in place. The cost-benefit reasoning in the paper focuses on the effectiveness of manipulative tactics on the benefit side. But benefits are also shaped by the perceived need of actors to engage in manipulation. For conceptual clarity we have assumed that actors make a two-step choice, first deciding whether or not they want to engage in electoral manipulation (presumably based on an assessment of their level of genuine support and the competitiveness of the race), and only subsequently deciding which manipulative tactic or tactics to pursue. We focus on this latter decision assuming all actors derive equal benefits from manipulation. However, a more complete theoretical model would ideally integrate the two considerations. But the effect of such a model should be to strengthen the findings presented here since it means we probably have included a number of incumbents whose

benefits from manipulation are small and therefore do not engage in such activities to any large extent.

Second, mainly due to data limitations, we have not differentiated different political actors and have not taken their possible interactions into account. Incumbents are likely to have more access to resources and state institutions that allow them to engage in more and different types of electoral manipulation than opposition actors. In addition, incumbent and opposition choices for manipulative tactics may be reactive, and based on what opponent actors have picked as their ‘method(s)’ of manipulation (i.e. tit for tat tactics of intimidation and violence). Finally, effectiveness and costs of different manipulative tactics may very well differ geographically within countries. For example, in countries where opposition or incumbent voters are geographically concentrated, focusing on vote buying in one area (to get incumbent voters out) while engaging in intimidation in another area (to scare opposition voters off) may be a very effective combination of tactics. Obviously, in the cross-national comparative design chosen here, more fine-grained analyses of within-country variation and the different actors involved in manipulation are not possible, but further research into these questions would generate better insight into the choice processes of manipulative actors.

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Appendix

This Appendix consists of:

- 1A. Descriptive information dependent and independent variables
- 2A. Table 3 with results of all control variables shown
- 3A. Table 3 with original measurement model variables
- 4A. Table 3 with freedom of media instead of overall civil liberties
- 5A. Table 3 with independence judiciary instead of overall civil liberties
- 6A. Table 3 excluding de jure single- and no-party elections
- 7A. Table 3 using seemingly unrelated regression

1A. Descriptive information dependent and independent variables

| | N | Mean | Min | Max |
|---|------|-------|--------|--------|
| Election administration manipulation | 1506 | 1.83 | 0.03 | 3.96 |
| Party bans | 1506 | 0.83 | 0 | 3.94 |
| Government intimidation | 1506 | 1.17 | 0 | 3.94 |
| Election violence | 1506 | 0.89 | 0.01 | 3.98 |
| Vote buying | 1506 | 1.85 | 0.03 | 3.90 |
| Freedom House civil liberties score reversed lagged t-1 | 1506 | 4.43 | 1 | 7 |
| Freedom House civil liberties score reversed squared lagged t-1 | 1506 | 23.08 | 1 | 49 |
| GDP per capita logged (current US\$) | 1408 | 7.73 | 4.60 | 11.39 |
| GDP per capita growth | 1393 | 2.01 | -30.71 | 104.66 |
| Natural resources as % of GDP | 1352 | 8.79 | 0 | 79.56 |
| Urban population (% of total population) | 1484 | 52.50 | 4.50 | 97.64 |
| Civil war in year of election? (0-1) | 1506 | 0.08 | 0 | 1 |
| Type election | 1506 | 1.63 | 1 | 3 |

2.A. Democratization and tactics of electoral manipulation in elections (1974-2012) – with controls

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| Freedom House civil liberties score reversed lagged t-1 (1-7) | -0.086*** (0.015) | -0.142*** (0.019) | -0.239*** (0.063) | -0.110+ (0.065) | 0.432*** (0.055) |
| Freedom House civil liberties score reversed squared lagged t-1 (1-49) | | | 0.020** (0.007) | 0.007 (0.007) | -0.042*** (0.006) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation (0-4) | | 0.427*** (0.036) | 0.573*** (0.031) | 0.027 (0.036) | 0.144*** (0.031) |
| Party bans (0-4) | 0.259*** (0.022) | | 0.100*** (0.028) | -0.174*** (0.028) | -0.209*** (0.024) |
| Government intimidation (0-4) | 0.418*** (0.022) | 0.135*** (0.032) | | 0.174*** (0.030) | 0.189*** (0.026) |
| Election violence (0-4) | 0.018 (0.025) | -0.204*** (0.031) | 0.168*** (0.029) | | 0.203*** (0.025) |
| Vote buying (0-4) | 0.130*** (0.028) | -0.358*** (0.035) | 0.239*** (0.033) | 0.260*** (0.033) | |
| <i>Contextual effects: controls</i> | | | | | |
| GDP per capita logged (current US\$, 4.6 - 11.4) | 0.063+ (0.034) | 0.425*** (0.042) | -0.049 (0.040) | -0.113** (0.041) | -0.074* (0.036) |
| GDP per capita growth (-45% - 103%) | -0.004* (0.002) | 0.002 (0.002) | 0.004+ (0.002) | -0.009*** (0.002) | 0.006** (0.002) |
| Natural resources as % of GDP (0% - 79%) | -0.001 (0.002) | 0.001 (0.002) | -0.000 (0.002) | 0.007** (0.002) | -0.001 (0.002) |
| Urban population (% of total population, 7% -98%) | -0.004 (0.003) | -0.015*** (0.004) | 0.003 (0.004) | -0.007+ (0.004) | -0.002 (0.003) |

| | | | | | |
|--------------------------------------|--------------------|----------|----------|----------|---------|
| Civil war in year of election? (0-1) | | | | 0.271*** | |
| | | | | (0.055) | |
| Type election ^a | | | | | |
| | Presidential (0-1) | 0.020 | -0.022 | -0.037 | 0.030 |
| | | (0.030) | (0.039) | (0.035) | (0.036) |
| | Concurrent (0-1) | -0.067* | -0.120** | 0.107** | -0.028 |
| | | (0.033) | (0.043) | (0.039) | (0.040) |
| <i>Constant</i> | | 1.606*** | -0.698 | -0.118 | 1.449** |
| | | (0.355) | (0.460) | (0.437) | (0.443) |
| R-squared (overall) | | 0.939 | 0.844 | 0.876 | 0.855 |
| N level 1 (elections) | | 1320 | 1320 | 1320 | 1320 |
| N level 2 (countries) | | 152 | 152 | 152 | 152 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Models same as reported in Table 3, with full results for control variables reported.

3A. Democratization and tactics of electoral manipulation in elections (1974-2012) – Measurement model variables

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|---|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| Freedom House civil liberties score reversed lagged t-1 | -0.094*** (0.018) | -0.201*** (0.024) | -0.258*** (0.078) | -0.070 (0.080) | 0.565*** (0.072) |
| Freedom House civil liberties score reversed squared lagged t-1 | | | 0.019* (0.009) | -0.002 (0.009) | -0.054*** (0.008) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation | | 0.498*** (0.038) | 0.575*** (0.033) | -0.046 (0.038) | 0.131*** (0.034) |
| Party bans | 0.273*** (0.021) | | 0.080** (0.027) | -0.144*** (0.028) | -0.141*** (0.026) |
| Government intimidation | 0.381*** (0.021) | 0.107** (0.033) | | 0.198*** (0.030) | 0.199*** (0.027) |
| Election violence | -0.033 (0.023) | -0.170*** (0.031) | 0.191*** (0.028) | | 0.252*** (0.026) |
| Vote buying | 0.095*** (0.025) | -0.228*** (0.034) | 0.226*** (0.031) | 0.290*** (0.031) | |
| <i>Contextual effects: controls</i> | | | | | |
| GDP per capita logged (current US\$) | 0.061 (0.040) | 0.495*** (0.053) | -0.045 (0.050) | -0.157** (0.051) | -0.136** (0.047) |
| GDP per capita growth | -0.003 (0.002) | 0.000 (0.003) | 0.005+ (0.003) | -0.010*** (0.003) | 0.006* (0.003) |
| Natural resources as % of GDP | -0.002 (0.002) | 0.003 (0.003) | 0.000 (0.003) | 0.007* (0.003) | -0.001 (0.003) |
| Urban population (% of total population) | -0.006 (0.004) | -0.015** (0.005) | 0.004 (0.005) | -0.006 (0.005) | 0.000 (0.004) |

| | | | | | |
|--------------------------------|--------------|---------|-----------|----------|---------|
| Civil war in year of election? | | | | 0.345*** | |
| | | | | (0.069) | |
| Type election ^a | | | | | |
| | Presidential | 0.022 | -0.025 | -0.062 | 0.046 |
| | | (0.036) | (0.048) | (0.044) | (0.045) |
| | Concurrent | -0.065+ | -0.109* | 0.084+ | -0.025 |
| | | (0.039) | (0.053) | (0.048) | (0.049) |
| <i>Constant</i> | | 0.730+ | -2.626*** | 0.798 | 1.496* |
| | | (0.406) | (0.544) | (0.522) | (0.623) |
| R-squared (overall) | | 0.944 | 0.869 | 0.901 | 0.886 |
| N level 1 (elections) | | 1320 | 1320 | 1320 | 1320 |
| N level 2 (countries) | | 152 | 152 | 152 | 152 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Models same as reported in Table 3, with the dependent variables measurement model variables, with scores reversed so that higher values indicate higher levels of manipulation.

4A. Democratization and tactics of electoral manipulation in elections (1974-2012) – Media freedom

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| CIRI independence media lagged t-1 | -0.048* | -0.105*** | -0.055 | -0.165* | 0.205*** |
| | (0.024) | (0.029) | (0.063) | (0.072) | (0.060) |
| CIRI independence media squared lagged t-1 | | | -0.000 | 0.035 | -0.072** |
| | | | (0.027) | (0.031) | (0.026) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation | | 0.454*** | 0.575*** | -0.001 | 0.123*** |
| | | (0.037) | (0.030) | (0.040) | (0.034) |
| Party bans | 0.305*** | | 0.109*** | -0.181*** | -0.306*** |
| | (0.025) | | (0.029) | (0.032) | (0.026) |
| Government intimidation | 0.498*** | 0.140*** | | 0.236*** | 0.176*** |
| | (0.026) | (0.037) | | (0.037) | (0.031) |
| Election violence | 0.003 | -0.187*** | 0.179*** | | 0.167*** |
| | (0.027) | (0.032) | (0.028) | | (0.027) |
| Vote buying | 0.115*** | -0.428*** | 0.192*** | 0.237*** | |
| | (0.032) | (0.036) | (0.034) | (0.038) | |
| GDP per capita logged (current US\$) | -0.032 | 0.415*** | 0.004 | -0.127** | 0.010 |
| | (0.039) | (0.045) | (0.042) | (0.047) | (0.040) |
| GDP per capita growth | -0.000 | -0.001 | 0.001 | -0.010*** | 0.007** |
| | (0.002) | (0.003) | (0.002) | (0.003) | (0.002) |
| Natural resources as % of GDP | -0.003 | 0.003 | 0.002 | 0.004+ | 0.001 |
| | (0.002) | (0.003) | (0.002) | (0.003) | (0.002) |
| Urban population (% of total population) | -0.002 | -0.010* | 0.000 | -0.013* | -0.002 |
| | (0.004) | (0.005) | (0.004) | (0.005) | (0.004) |
| Civil war in year of election? | | | | 0.287*** | |

| | | | | | |
|----------------------------|--------------|----------|----------|---------|----------|
| | | | | | (0.061) |
| Type election ^a | | | | | |
| | Presidential | 0.014 | -0.030 | -0.027 | 0.029 |
| | | (0.031) | (0.038) | (0.034) | (0.038) |
| | Concurrent | -0.056 | -0.096* | 0.073+ | -0.022 |
| | | (0.035) | (0.043) | (0.038) | (0.043) |
| | Constant | 1.648*** | -1.766** | -0.730 | 1.847*** |
| | | (0.446) | (0.545) | (0.486) | (0.550) |
| R-squared (overall) | | 0.941 | 0.854 | 0.899 | 0.863 |
| N level 1 (elections) | | 1118 | 1118 | 1118 | 1118 |
| N level 2 (countries) | | 152 | 152 | 152 | 152 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Models same as reported in Table 3, with the civil liberties variable replaced by independence of the media. a. Legislative is reference category.

5A. Democratization and tactics of electoral manipulation in elections (1974-2012) – Independence of judiciary

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| CIRI independence judiciary lagged t-1 | -0.012 (0.024) | -0.012 (0.030) | -0.116+ (0.064) | -0.002 (0.071) | 0.134* (0.060) |
| CIRI independence judiciary squared lagged t-1 | | | 0.028 (0.030) | -0.013 (0.033) | -0.044 (0.028) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation | | 0.453*** (0.037) | 0.566*** (0.030) | 0.016 (0.039) | 0.103** (0.033) |
| Party bans | 0.295*** (0.024) | | 0.143*** (0.028) | -0.175*** (0.031) | -0.300*** (0.025) |
| Government intimidation | 0.481*** (0.025) | 0.186*** (0.036) | | 0.231*** (0.035) | 0.197*** (0.030) |
| Election violence | 0.014 (0.026) | -0.188*** (0.032) | 0.184*** (0.028) | | 0.159*** (0.027) |
| Vote buying | 0.095** (0.031) | -0.431*** (0.036) | 0.218*** (0.033) | 0.216*** (0.037) | |
| GDP per capita logged (current US\$) | -0.028 (0.038) | 0.398*** (0.046) | 0.013 (0.042) | -0.121** (0.046) | -0.014 (0.040) |
| GDP per capita growth | -0.000 (0.002) | -0.001 (0.003) | 0.001 (0.002) | -0.009*** (0.003) | 0.005* (0.002) |
| Natural resources as % of GDP | -0.003 (0.002) | 0.003 (0.003) | 0.002 (0.002) | 0.005+ (0.003) | 0.001 (0.002) |
| Urban population (% of total population) | -0.005 (0.004) | -0.011* (0.005) | 0.004 (0.004) | -0.011* (0.005) | -0.002 (0.004) |

| | | | | | |
|--------------------------------|--------------|----------|----------|----------|---------|
| Civil war in year of election? | | | | 0.294*** | |
| | | | | (0.060) | |
| Type election ^a | | | | | |
| | Presidential | 0.015 | -0.041 | -0.020 | 0.019 |
| | | (0.031) | (0.038) | (0.034) | (0.037) |
| | Concurrent | -0.056 | -0.134** | 0.079* | -0.039 |
| | | (0.035) | (0.043) | (0.038) | (0.042) |
| <i>Constant</i> | | 1.803*** | -1.759** | -1.080* | 1.598** |
| | | (0.430) | (0.535) | (0.470) | (0.521) |
| R-squared (overall) | | 0.939 | 0.844 | 0.894 | 0.859 |
| N level 1 (elections) | | 1157 | 1157 | 1157 | 1157 |
| N level 2 (countries) | | 152 | 152 | 152 | 152 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Models same as reported in Table 3, with the civil liberties variable replaced by independence of the judiciary. a. Legislative is reference category.

6A. Democratization and tactics of electoral manipulation in elections (1974-2012) – without single-party elections

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|---|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| Freedom House civil liberties score reversed lagged t-1 | -0.079*** (0.015) | -0.075*** (0.012) | -0.213*** (0.062) | -0.056 (0.069) | 0.188*** (0.055) |
| Freedom House civil liberties score reversed squared lagged t-1 | | | 0.020** (0.007) | 0.005 (0.008) | -0.019** (0.006) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation | | 0.176*** (0.024) | 0.513*** (0.029) | 0.026 (0.036) | 0.104*** (0.029) |
| Party bans | 0.281*** (0.039) | | 0.194*** (0.041) | -0.116* (0.046) | -0.116** (0.037) |
| Government intimidation | 0.477*** (0.026) | 0.121*** (0.024) | | 0.235*** (0.034) | 0.253*** (0.027) |
| Election violence | 0.021 (0.027) | -0.052* (0.022) | 0.190*** (0.028) | | 0.111*** (0.025) |
| Vote buying | 0.126*** (0.035) | -0.097*** (0.027) | 0.329*** (0.035) | 0.170*** (0.040) | |
| GDP per capita logged (current US\$) | 0.088* (0.035) | 0.168*** (0.028) | -0.075* (0.037) | -0.102* (0.040) | -0.050 (0.032) |
| GDP per capita growth | -0.004+ (0.002) | -0.001 (0.002) | 0.003 (0.002) | -0.007*** (0.002) | 0.007*** (0.002) |
| Natural resources as % of GDP | -0.003 (0.002) | 0.001 (0.002) | 0.001 (0.002) | 0.007** (0.002) | -0.002 (0.002) |
| Urban population (% of total population) | -0.007* (0.003) | -0.000 (0.003) | 0.000 (0.003) | -0.004 (0.004) | -0.007* (0.003) |

| | | | | | |
|--------------------------------|--------------|----------|---------|----------|---------|
| Civil war in year of election? | | | | 0.266*** | |
| | | | | (0.054) | |
| Type election ^a | | | | | |
| | Presidential | 0.022 | 0.010 | -0.026 | 0.043 |
| | | (0.030) | (0.024) | (0.032) | (0.035) |
| | Concurrent | -0.035 | -0.019 | 0.073* | -0.013 |
| | | (0.033) | (0.026) | (0.035) | (0.038) |
| <i>Constant</i> | | 1.510*** | -0.529+ | -0.104 | 0.983* |
| | | (0.376) | (0.300) | (0.417) | (0.460) |
| R-squared (overall) | | 0.936 | 0.771 | 0.892 | 0.884 |
| N level 1 (elections) | | 1187 | 1187 | 1187 | 1187 |
| N level 2 (countries) | | 146 | 146 | 146 | 146 |

Time series cross-section analyses, fixed country and year effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Models same as reported in Table 3, with a smaller sample excluding single-party elections.

7A. Democratization and tactics of electoral manipulation in elections (1974-2012) – Seemingly Unrelated Regression

| | Model 1 EMB autonomy | Model 2 Party bans | Model 3 Government intimidation | Model 4 Election violence | Model 5 Vote buying |
|--|-------------------------|-----------------------|------------------------------------|------------------------------|------------------------|
| <i>Contextual effects: democratization</i> | | | | | |
| Freedom House civil liberties score reversed lagged t-1 (1-7) | -0.089*** (0.017) | -0.168*** (0.019) | -0.197*** (0.058) | -0.311*** (0.077) | 0.652*** (0.068) |
| Freedom House civil liberties score reversed squared lagged t-1 (1-49) | | | 0.029*** (0.006) | 0.027** (0.009) | -0.075*** (0.007) |
| <i>Controlling for other tactics of electoral manipulation</i> | | | | | |
| Election administration manipulation (0 - 4) | | 0.472*** (0.028) | 0.675*** (0.024) | -0.477*** (0.033) | 0.615*** (0.030) |
| Party bans (0 - 4) | 0.388*** (0.023) | | 0.123*** (0.026) | -0.137*** (0.032) | -0.503*** (0.029) |
| Government intimidation (0 - 4) | 0.617*** (0.021) | 0.159*** (0.028) | | 0.548*** (0.030) | 0.011 (0.030) |
| Election violence (0 - 4) | -0.320*** (0.021) | -0.082*** (0.023) | 0.385*** (0.021) | | 0.489*** (0.023) |
| Vote buying (0 - 4) | 0.425*** (0.020) | -0.467*** (0.022) | 0.011 (0.023) | 0.535*** (0.025) | |
| GDP per capita logged (current US\$, 4.6 - 11.4) | -0.035 (0.022) | 0.045+ (0.024) | 0.055* (0.023) | -0.010 (0.028) | -0.069** (0.026) |
| GDP per capita growth (-45% - 103%) | -0.008** (0.002) | -0.003 (0.003) | 0.010*** (0.003) | -0.011*** (0.003) | 0.003 (0.003) |
| Natural resources as % of GDP (0% - 79%) | 0.003+ (0.001) | 0.003+ (0.002) | -0.004** (0.001) | 0.006** (0.002) | -0.000 (0.002) |
| Urban population (% of total population, 7% -98%) | 0.001 (0.001) | -0.007*** (0.001) | 0.001 (0.001) | -0.007*** (0.001) | 0.002 (0.001) |
| Civil war in year of election? (0-1) | | | | 0.412*** (0.001) | |

| | | | | | |
|----------------------------|--------------------|-----------|----------|-----------|----------|
| Type election ^a | | | | | (0.066) |
| | Presidential (0-1) | 0.076+ | -0.060 | -0.046 | 0.012 |
| | | (0.044) | (0.048) | (0.046) | (0.054) |
| | Concurrent (0-1) | -0.191*** | 0.094* | 0.089* | -0.051 |
| | | (0.040) | (0.044) | (0.042) | (0.050) |
| <i>Constant</i> | | 0.989*** | 1.774*** | -0.836*** | 1.506*** |
| | | (0.200) | (0.227) | (0.252) | (0.308) |
| Pseudo R-squared | | 0.932 | 0.932 | 0.932 | 0.932 |
| N level 1 (elections) | | 1320 | 1320 | 1320 | 1320 |
| N level 2 (countries) | | 152 | 152 | 152 | 152 |

Seemingly unrelated regression, year fixed effects. P-values: + 0.1, * 0.05, ** 0.01, *** 0.001 (two-sided). Dependent variables are the measurement model corrected continuous variables, rescaled so as to vary from 0 to 4, and with scores reversed so that higher values indicate higher levels of manipulation. Models same as reported in Table 3, with different estimation method (seemingly unrelated regression). a. Legislative is reference category.