Lost in transition?

The persistence of dictatorship mayors*

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We look at Chile's transition to democracy in 1990 to study the persistence of authoritarian politics at the local level. Using new data on the universe of mayors appointed by the Pinochet dictatorship (1973-1989), and leveraging on the arbitrary election rules that characterized the first local election in 1992, we present two main findings. First, dictatorship mayors obtained a vote premium that is larger among the last wave of incumbents and appears partially explained by an increase in local spending. Second, dictatorship mayors who were democratically elected in 1992 brought votes for the parties that collaborated with the dictatorship in subsequent elections held in democracy. These results suggest that the body of politicians appointed by a dictatorship contribute to the persistence of elites and institutions.

Keywords: politicians, dictatorship, democratic transition

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1 Introduction

Social scientists argue that there is an important link between the authoritarian past of a country and the degree of elite capture observed in democracy. These authoritarian legacies are particularly relevant when a democratization changes the distribution of *de jure* political power but has limited changes in *de facto* political power. This was partially the case in Indonesia where dictatorship mayors remained in office for arbitrary reasons and facilitated elite capture (Martínez Bravo et al., 2017). Yet many transitions lack this type of arbitrary persistence of mayors and unfold relatively more slowly, providing elites with time to prepare for upcoming democratic elections. For example, political elites might decide to invest in *de facto* power through the provision of public goods before the transition unfolds. Although intuitive, empirical evidence for this mechanism is limited.

We leverage new historical data together with transitory electoral rules around Chile's democratization in 1990 to offer two findings that improve our understanding of elite persistence. First, mayors appointed by the Pinochet dictatorship (1973-1990) obtained a vote premium of 9 percentage points (pp.) in the first local election held in democracy (1992). This premium was twice as large (12 vs 6 pp.) for the subset of dictatorship mayors who decided to run in the municipality where they were the seating incumbent. Further analysis suggests that an increase in local spending before the transition can partially explain the vote premium of *all* dictatorship mayors. Second, when looking at subsequent elections held in democracy we find that dictatorship mayors who were democratically elected brought additional votes for the parties aligned with the former dictatorship, without affecting outcomes related to the performance of local governments.

Chile's transition to democracy is an interesting case study for several reasons. The Pinochet dictatorship exhibited many of the key features of twentieth-century authoritarian governments, including state-led repression (Bautista et al., 2020), media censorship

¹See, for instance, O'Donnell and Schmitter (1986); Linz and Stepan (1996); Acemoglu (2008); Acemoglu and Robinson (2008); Acemoglu et al. (2011); Albertus and Menaldo (2018); Nunn (2020).

(Chen and Yang, 2019), concentrated power in a single person (Geddes et al., 2018), and democratization by election (Treisman, 2020). Immediately after the 1973 coup d'état, a military *junta* removed all democratically elected mayors and appointed local officials that were "to be trusted." The transition to democracy began in October of 1988, when Augusto Pinochet lost a well-known referendum under international scrutiny. A new democratic government was elected in 1989, which took office in March 1990, and local elections were held in June 1992 to decide the new body of mayors.

Despite extensive literature studying the Pinochet regime (Huneeus, 2006; Cavallo et al., 2011), very little is known about local governments and appointed mayors. We contribute with new evidence on this topic using vast amounts of recorded but previously unexplored data, i.e. the appointments of *all* mayors during this period. These appointments were discretionary and a descriptive analysis of the temporal dynamics in the appearance of new mayors in a municipality suggests that these were unrelated to performance: protests, natural disasters, and poor budget management were unrelated to the replacement of mayors. In the light of recent research (Myerson, 2015; Martinez-Bravo et al., 2017), we interpret these patterns as suggestive evidence that authoritarian appointments are associated with poor monitoring and selection of government officials.

To study the persistence of dictatorship mayors, we followed them in local elections in democracy and digitized data on local spending by municipality. We begin by documenting that dictatorship mayors who ran in the first local election in 1992 obtained a vote premium of 9 pp. This premium was twice as large for the last wave of dictatorship mayors who decided to run in the municipality where they were seating incumbents. Moreover, an analysis of the second election in 1996 suggests that this "incumbency effect" is similar to the well-known advantage obtained by elected mayors in democracy (Lee, 2008). Motivated by a sharp increase in local spending after it was revealed Pinochet would leave office (October 1988 to March 1990), we study whether this spending helped dictatorship mayors to gain votes in the first local election in democracy. We find that a one standard

deviation increase in local spending increased their vote share by 3 pp. This finding is consistent with recent research (Voigtländer and Voth, 2018), supports the hypothesis that political elites provided additional public goods to prepare for the upcoming elections, and explains part of the incumbency effect we document.

What are the political and economic consequences of dictatorship mayors serving in a new democratic time? Since dictatorship mayors were not randomly placed across municipalities, we exploit quasi-experimental variation coming from the transitory electoral rules that characterized the first local elections. These rules allow us to approximate a natural experiment in which dictatorship mayors were close to being randomly elected as mayors in a subset of municipalities. Using this source of variation we show that dictatorship mayors were associated with a higher vote share for right-wing candidates in subsequent local and presidential elections, without a clear differential performance effects in their municipalities. Since the right-wing coalition was aligned with the Pinochet dictatorship, we interpret this evidence as a potential mechanism behind elite persistence.

This paper contributes to the literature documenting the legacies of dictatorships and more generally the functioning of young democracies with an authoritarian past. Although several authors have emphasized the link between authoritarian regimes and subsequent democracies (O'Donnell and Schmitter, 1986; Huntington, 1991; Linz and Stepan, 1996), empirical studies have only appeared recently. There is evidence that local officials inherited from a dictatorship affected clientelistic spending and facilitated elite capture in Indonesia (Martínez Bravo, 2014; Martínez Bravo et al., 2017). In contrast to the Indonesian case, Chile's transition was less abrupt and consequently appointed mayors – and the elite more generally – had time to prepare for the upcoming democracy (González and Prem, 2020). In this regard, we contribute to a literature documenting the strategies used by elites to maintain their power (Robinson and Hadiz, 2004; Honna, 2010; Albertus and Menaldo, 2014, 2018; González et al., 2020). In addition, by empirically studying the fate of mayors appointed by a dictatorship, our paper also contributes to the literature studying

elite persistence (Acemoglu and Robinson, 2008; Albertus, 2019; Ferraz et al., 2020).

We also contribute to a literature that studies appointments to local governments. Research in democracies is vast – see Dal Bó and Finan (2018) for a review – but there is less evidence from autocracies. Many authoritarian regimes use local elections, but some do not.² When dictators select mayors the drivers of appointments are unknown. There is, however, evidence of patronage among public officials different from mayors in the British Empire and current democracies (Xu, 2018; Colonnelli et al., 2020). A related literature shows that elected officials respond more to their constituents than appointed ones due to electoral incentives (Besley and Coate, 2003; Levin and Tadelis, 2010; Choi et al., 2010; Hessami, 2018). Our contribution is twofold. First, we show descriptive evidence suggesting that appointments of mayors in dictatorship were unrelated to performance. Second, we show that "once appointed" (then elected) mayors perform similarly to "never appointed" ones but increase the vote share of their parties. The increase in votes is consistent with a literature studying political dynasties in dictatorships (Brownlee, 2007) and democracies (Dal Bó et al., 2009), but across-regime evidence is more limited.

Finally, we contribute to the literature studying how local spending can affect voting patterns. Previous research has shown that local spending can boost political support because – when efficient – it signals economic competence and – when targeted – it spreads support through social networks (Berman et al., 2011; Voigtländer and Voth, 2018; Fafchamps and Labonne, 2019). Moreover, elections can provide political incentives to complete projects and voters reward incumbents for doing so (Marx, 2018). We contribute to this literature by showing how an authoritarian regime might use local spending to maintain their political power after a democratization.

²Examples of authoritarian regimes *with* local elections include Brazil (1964-1985), Indonesia (1968-1998), Pakistan (1977-1988), and China (1980s-1990s), among others. Martínez Bravo et al. (2018) argues that the existence of local elections in authoritarian regimes can be explained by information asymmetries.

³Related work has also shown how targeted income transfers or even random income shocks can increase support for the incumbent government (Manacorda et al., 2011; Labonne, 2013; Bagues and Esteve-Volart, 2016). There is also a vast literature estimating the local non-political effects of infrastructure projects (e.g. Michaels 2008; Faber 2014; Hornbeck and Donaldson 2016; Donaldson 2018).

2 Historical background

The last local election before the Pinochet dictatorship (1973-1990) was held in April 1971 under the government of socialist Salvador Allende (1970-1973). In this election the coalition of left-wing parties known as Popular Unity, which supported Allende in the 1970 presidential election, obtained more than 50% of the votes. After the 1973 coup d'état, a military *junta* ruled the country and suspended the constitution, removed all democratically elected mayors, and appointed a new body of mayors that were "to be trusted" (Decree Law N. 25). Fifteen years later Augusto Pinochet lost a referendum and the transition to democracy unfolded. The new democratically elected government took office in March 1990 and local elections were held in June 1992 to decide the new body of mayors. Figure 1-A presents a timeline of the main events.

2.1 Mayors in dictatorship

There is a vast literature studying the Pinochet regime (e.g. Huneeus 2006; Cavallo et al. 2011). Yet we know much less about local governments and appointed mayors. Perhaps the most detailed account of the importance of local governments during this period comes from Valdivia et al. (2012). The authors argue that from the beginning of the 1980s municipalities became key for the implementation of the regime's policy platform, particularly social policies. The regime attempted to effectively change the policy-deliberation process from traditional institutions like the Congress and political parties to local areas. Mayors became very important and had *de facto* power over the functioning of municipalities, with *regidores* in the *Consejo de Desarrollo Comunal* – i.e. the Council – serving only as advisors. Despite the importance of mayors, we know very little about their ap-

⁴In terms of political parties, the winner of that election was the Christian Democrats (political center) with 26% of the votes, followed closely by the Socialist Party (left-wing) with 23%, and then by the National Party (right-wing) with 18% of the votes.

⁵Examples of these social programs include the Minimum Employment Program implemented in 1975 (PEM) and the Occupation Program for Head of Households (POJH) implemented in 1982.

pointments and fate after the return to democracy.

The 1980 Constitution crafted by the Pinochet regime established that mayors were to be appointed by the President and would last four years in power. The opposition was critical of this change which they argued broke a long-standing democratic tradition (Díaz and Maturana, 1994). Unfortunately most information about the selection and removal of mayors comes only from anecdotes and interviews. For example, some members of right-wing parties seem to have started their political careers as appointed mayors and then got elected as members of the Congress in parliamentary elections or as mayors in local elections.⁶ Anecdotal evidence also suggests that Pinochet's wife was responsible for many appointments, sometimes removing a mayor because he was not helping with CEMA-Chile, the organization of housewives that she led (Farfán and Vega, 2009), or because she felt that a mayor or his wife threatened her power, and sometimes rewarding people by appointing them as mayors of important municipalities (Camus, 2014).

As stated in the Constitution, a referendum was held in October 1988 to determine whether Augusto Pinochet would remain in power for the following eight years. Pinochet lost with 44% of the vote and the transition to democracy began. The opposition candidate Patricio Aylwin won the subsequent presidential election in 1989 running with (among others) a proposal to "democratize municipalities." At the time, the opposition and the regime could not agree about what to do with local governments, and a final agreement to democratically elect mayors and councils only happened during the second year post-dictatorship. The first attempt came from President Patricio Aylwin, who in May 1990 proposed to hold local elections but the right-wing coalition expressed their discontent with the proposal because it could "weakened the institutional stability" (*La Tercera*, May 1990). A new proposal was sent in May 1991 which ended up being approved by right-wing parties in August 1991 (Díaz and Maturana, 1994; Mardones, 2006).

⁶Examples include the appointed mayors of *Pudahuel* municipality in the 1985-1989 period and *La Cisterna* municipality in the 1989-1992 period. Both mayors were members of right-wing parties, went on to win seats in the Congress representing the same local areas and remain in power until today.

2.2 The 1992 local election

The second part of the empirical analysis exploits the transitory electoral rules in the 1992 local election to estimate the causal effect of dictatorship mayors on the performance of local governments. We now explain these peculiarities with some detail. It is important to emphasize that these rules were the result of negotiations across all political parties.

Law N. 19097 enacted in November 1991 established that a municipality was to be ruled by a mayor and a council democratically elected in local elections to be held in June 1992. However, in this election voters elected *councilors* instead of *mayors*. Councilors were to be elected using a D'Hondt method and the electoral rule for mayors was as follows: if a candidate obtained more than 35% of the votes *and* was part of the most voted list, then he or she became the mayor for the 1992-1996 period. If one of these requirements was not met, then the council elected the mayor using a simple majority rule. The council was composed by the most voted candidates. Municipalities with less than 70 thousand registered voters elected 6 councilors, between 70 and 150 thousand elected 8, and those with more than 150 thousand elected 10.

The winner of this local election was the left-wing coalition *Concertación por la Democracia* with 53% of the vote. They elected 266 mayors and 1159 of 2076 councilors. The runner-up was the right-wing coalition with 30% of the vote, 62 mayors, and 756 councilors. The electoral rule together with the even number of councilors caused that in 84 races two mayors were elected by the council. In these cases the two elected mayors split the period in two terms of two years with a random order of incumbency. A total of 50 mayors obtained more than 35% of votes and were part of the most voted list and

⁷Lists were groups of political parties and were registered before election day. There were six lists in the 1992 election: *Concertación por la Democracia* (list A) – composed by six parties – Communist Party (list B), Liberal Party (list C), *Participación y Progreso* (list D) – composed by three parties – *Unión de Centro Centro* (list E), and Independent (list I).

⁸This electoral rule favored the Christian Democrats, a party in the center of the political spectrum but aligned with the left-wing coalition during the transition to democracy. Figure A.1 shows that a simple majority rule would have lead to more dictatorship mayors being elected (18% instead of 12%).

hence were directly elected as mayors for the 1992-1996 period. Of these mayors, 29 were from the left-wing coalition and 21 from the right-wing coalition, with the Christian Democrats being the party with the most mayors (18).

The rules to elect mayors were transitory and thus changed for the 1996 local elections. If the most voted candidate was not part of the most voted list, then the most voted candidate from the most voted list was elected mayor. From 2004 onwards mayors and councilors were elected using a simple majority rule in separate ballots.

3 Data construction

This section explains how we gathered information about dictatorship mayors, how we constructed local spending measures, and provides descriptive statistics.

3.1 Administrative sources

We constructed two main datasets. The first contains the names of all mayors appointed by Pinochet between 1973 and 1992. To the best of our knowledge this is the first time all names have been gathered in a single dataset. To construct it we collected the universe of official records on mayors' appointments from the Ministry of the Interior. Each time a mayor was appointed by Pinochet a decree was created with the full name of the mayor, the first date of the mandate, and the name of the municipality. In the few cases without information, we contacted municipalities directly to fill the gaps. We converted this information into a panel dataset of municipalities observed annually with the names of dictatorship mayors in each year. We observe 1,104 unique individuals serving as mayors in approximately 6,500 municipality-year positions.

The second dataset measures local spending annually during the dictatorship period using two sources. First, we digitized information about local projects implemented in the

period from 1979 until 1996. We collected this information from annual reports produced by the Ministry of Housing and Urbanism. Projects were classified by the Ministry in four categories: housing, sanitation, equipment, and other. Examples of these projects include health infrastructure, paving, lighting, sewerage, fire stations, sport courts, and social housing, among others. We observe the exact dates of implementation, the municipality of the project, and the financial cost. Second, we digitized the revenues and spending of municipalities from annual reports collected by the General Accounting Office, available from 1985 onwards. Figure 1-B presents a summary of the data collection.

We complemented this information with other administrative data. We use electoral data for local, parliamentary, and presidential elections which we gather from the Electoral Service after 1988 and digitized from their administrative records before that year. We identified dictatorship mayors in the list of 6,500 candidates in the first local election in 1992 using a supervised probabilistic record matching algorithm. In particular, this procedure uses letters in full names – i.e. one or two given names and two family names – to assign a probability that pairs of full names correspond to the same individual. When the match was imperfect, we check high probability cases manually. We found 246 dictatorship mayors running. We also use data measuring state repression by municipality and individual-level data on prisoners, information collected by the National Commission on Truth and Reconciliation and the National Commission on Political Imprisonment and Torture (a.k.a. Valech and Rettig reports). When studying the performance of mayors in democracy we use additional data from the General Accounting Office and the Health Bureau. Table A.1 presents descriptive statistics for these additional data.

3.2 Descriptive statistics

The data we constructed allow us to characterize patterns of appointments during dictatorship in an unusually rich way. Table 1 presents some descriptive statistics. The average municipality had three mayors during the dictatorship and a mayor stayed in power for an

average of four years. Yet some mayors remained in office for less that one year and some for the entire period of dictatorship. Figure 2-A shows the number of new appointments per year from 1968 until 1999, where we can clearly see the disruption after the 1973 coup. On average the dictatorship replaced 10-20% of mayors each year.

The drivers behind new appointments are poorly understood but anecdotal evidence suggest that they did *not* respond to changes in performance. The lower panels in Figure 2 provide suggestive evidence of this being the case. These panels show the correlation between the percentage of new appointments per municipality in a given periods (e.g. 1983-1985) as a function of variables that could have revealed the ability or performance of mayors. The percentage of new appointments is empirically unrelated to the intensity of protests in 1983-1984, to the intensity of one of the largest earthquakes ever recorded in 1985, to the local performance of mayors as measured by municipal deficit, and to the local implementation of repression during the 1973-1976 period. These patterns suggest that mayors were not removed because of their performance.

The lower panel in Table 1 presents descriptive statistics for revenues and spending in municipalities and the middle panel for local spending in projects. Figure 3 presents time variation in local spending as measured by the total number of projects and their monetary cost in the period 1979-1992. Two noticeable patterns emerge. First, the effect of the 1982-83 economic crisis can be seen by looking at the monetary resources invested during those years. Second, there is a significant increase of approximately 50% in local spending in 1989. This year is somewhat unique because Pinochet knew that he would be leaving power and the new opposition coalition was going to take office in March 1990. Pinochet also had full control of monetary resources and could implement projects at discretion. As we argue, both features imply that this is the ideal scenario for the dictatorship to attempt to retain some of their political power by increasing spending in

⁹Data for the intensity of the 1985 earthquake at the local level comes from the National Office of Emergency of the Interior Ministry (ONEMI). Protest data comes from annual reports produced by the Vicariate of Solidarity, a human rights organization operating during the dictatorship.

local projects in order to gain support before the next election.

4 Dictatorship mayors in the first local election

This section shows that the dictatorship mayors who ran in the 1992 election obtained more votes than other candidates. We show that this vote premium can be explained by an incumbency advantage and local spending before the transition to democracy.

4.1 The vote premium

To estimate the differential electoral performance of dictatorship mayors we focus in the 1992 local election and estimate the following regression equation:

$$V_{ijc} = \beta \cdot \text{Dictatorship mayor}_i + \phi_j + \phi_c + \varepsilon_{ijc}$$
 (1)

where V_{ijc} is the vote share of candidate i, affiliated to political party j, and running in municipality c. The main variable of interest is Dictatorship mayor, an indicator that takes the value of one for candidates who were appointed mayors during the dictatorship period. In addition, parameters ϕ_j and ϕ_c represent fixed effects by political party and municipality respectively, and we allow the error term ε_{ijc} to be arbitrarily correlated within municipalities. There are 333 local elections in our data and 13 political parties. The parameter of interest is β and measures the average differential vote share obtained by dictatorship mayors within municipalities and parties.

It is worth noticing that those candidates who decided to run in the election might have been different in unobservable dimensions that are valued by voters, which in turn could

 $^{^{10}}$ Note that we can estimate β because dictatorship mayors ran as independent candidates or as members of different right-wing parties, meaning that our estimation controls for any incumbency advantage the dictatorship might have had through connections with right-wing political parties.

lead to bias in the β coefficient. For instance, if the dictatorship mayors (or the citizens) with the highest probability of winning decided to run, then the coefficient on incumbents will be upward (downward) biased. Table A.2 shows that those who decided to run were in office for more years and held office in the second half of the dictatorship, i.e. after 1983. Perhaps surprisingly, local spending, municipal budget, and the vote share against Pinochet in the 1988 referendum have little predictive power on the decision to run. Unfortunately, the dearth in data precludes us from any attempt to model the decision of becoming a candidate using other individual characteristics such as education or age. Thus, our β estimate has to be interpreted as the electoral premium for the dictatorship mayors who became candidates *relative* to the citizens who became candidates.

Column 1 in Table 2 presents estimates of equation (1) without fixed effects, column 2 adds municipality fixed effects, and column 3 adds political party fixed effects. We always include an indicator for dictatorship prisoners to estimate their premium for comparison purposes. Prisoners are defined as individuals who were imprisoned at some point during the 1973-1990 dictatorship period. For reference, the average candidate obtained 5.1% of votes in a municipality, there were 246 dictatorship mayors and 514 dictatorship prisoners running, the average municipality had 19 candidates competing, and there was at least one dictatorship mayor as candidate in 196 races. Municipality fixed effects imply that we estimate β using variation from these 196 municipalities.

Results indicate that dictatorship mayors obtained 9 percentage points higher vote share than other candidates. Consequently, Table A.3 in the appendix shows that they were 18 percentage points more likely to win the election, a substantial increase from a base of 7%. In contrast, dictatorship prisoners obtained a vote premium of around 1 percentage point and only a marginally significant increase in the probability of winning.

¹¹For each of the 1,100 dictatorship mayors in the data we assign municipality characteristics from the municipality where they held office. In the few cases in which a mayor held office in more than one municipality, we assign the characteristics of the last one.

¹²The names of dictatorship prisoners comes from The National Commission on Political Imprisonment and Torture Report produced by the Chilean Congress. We match this list of names with the list of names with all candidates in the 1992 election using the same probabilistic record matching algorithm.

Table A.4 shows that all these results are robust to the inclusion of the following more flexible two-way fixed effects: (i) political party by region, and (ii) political party by province. We also randomized being a dictatorship mayor within a municipality 1,000 times and estimated equation (1) each time to perform randomization inference. Our estimate is above the 99% of randomized estimates.

4.2 The role of incumbency

The evidence so far suggests that dictatorship mayors obtained a 9 percentage points higher vote share than other candidates in the same municipality. Why were citizens voting relatively more for mayors previously appointed by Pinochet? Perhaps the most intuitive explanation for this vote premium is the existence of an incumbency advantage. More precisely, the last wave of dictatorship mayors before the 1992 election could have had an advantage simply because he or she was the incumbent mayor, a robust empirical finding across many countries and time periods (e.g. Lee 2008).¹³

In an attempt to capture the essence of the incumbency that is studied in the literature, we define a dictatorship mayor as an incumbent candidate in the 1992 local elections, if she or he met the following requirements: (1) he or she was a mayor appointed by the Pinochet dictatorship, (2) held office after the 1988 referendum, and (3) decided to ran in the same municipality where he or she held office. Using this definition we calculate that 117 of the 246 dictatorship mayors running in the 1992 local election were incumbents and thus the remaining 129 dictatorship mayors were non-incumbents.

To test for the role of incumbency in the 1992 election, we constructed an indicator that takes the value of one for dictatorship mayors who were the seating incumbent. Then, we augmented equation (1) to include this variable as an additional predictor of vote

¹³Additional examples include Fowler and Hall (2014); Erikson and Titiunik (2015); Fiva and Smith (2018). There is less clarity about what explains the incumbency effect. Potential mechanisms include information about incumbents and a positive valuation of the political experience obtained in office.

shares. Column 4 in Table 2 presents the estimation result. The coefficient for dictatorship mayors decreases from 9 to 6.5 percentage points and the coefficient for incumbents is 6 percentage points (*p*-value<0.05). This estimate constitutes suggestive evidence of an incumbency advantage among dictatorship mayors. Because the vote premium was 9 percentage points and dictatorship mayors who were not incumbents obtained 6 percentage points of premium, we conclude that an incumbency advantage can explain at most one-third of the vote premium of dictatorship mayors. The next section argues that part of the remaining two-thirds can be explained by an increase in local spending.

The incumbency advantage gained by dictatorship mayors appears to be similar to the well-known "incumbency advantage" obtained by elected mayors in democracy. We reach this tentative conclusion after an empirical analysis of the second local election held in democracy, where we observe 38 dictatorship and 317 non-dictatorship *incumbent* mayors running for reelection. Table 3 presents estimates of the same equation (1) but now using data from the 1996 elections. ¹⁴ The results reveal that the incumbency advantage seems to apply to both dictatorship and non-dictatorship mayors equally. Columns 1 through 4 use the vote shares of all candidates in 1996 as dependent variable. Our preferred specifications are in columns 5-6, where we restrict attention to municipalities where the winners and runner-ups in the first election decided to run. ¹⁵ These columns reveal an incumbency advantage of 13 percentage points for incumbent mayors, a number that is similar in the sub-sample of incumbent mayors who held office in dictatorship.

¹⁴Municipality-level characteristics such as the margin of victory are absorbed by the fixed effects ϕ_c . Note that 123 dictatorship mayors were non-incumbent candidates and a few municipalities had two mayors, hence the number of incumbent mayors running is larger than the number of municipalities. A caveat with this analysis is that we are comparing dictatorship mayors with more than one period in office (1992-1996 plus the dictatorship period) with non-dictatorship mayors who held office for one period.

¹⁵There were 260 incumbent mayors running in this sub-sample, 27 who were dictatorship mayors, and 40 dictatorship mayors who were runner-ups in 1992. The results are again robust to the inclusion fixed effects by party-region and party-province. See Table A.5 for details.

4.3 The role of local spending

Before the transition to democracy the dictatorship could have decided to increase their spending locally to maximize the probability of their mayors being elected in the upcoming elections. Descriptive statistics in the previous section suggest that local spending increased after the announcement of the transition in October 1988. To test for this explanation we augment equation (1) to allow for a differential effect of local spending in different political periods. In particular, we estimate the following equation:

$$V_{ijc} = \beta \cdot \text{Dict mayor}_i + \sum_p \gamma_p \cdot (\text{Dict mayor}_i \times \text{Local spending}_c^p)$$

$$+ \phi_j + \phi_c + \varepsilon_{ijc}$$
(2)

where Local spending $_c^p$ is local spending in projects in municipality c during period p. We call "dictatorship" to the period before October 1988, "transition" to the period between October 1988 and March 1990, and "democracy" to the period between March 1990 and June 1992. The remaining variables are defined in the same way as before and we again include dictatorship prisoners for comparison purposes.

The coefficients of interest are γ_{DICT} , γ_{TRAN} , γ_{DEM} and measure the empirical association between local spending in different political periods and the vote share of dictatorship mayors in the 1992 election. We use two measures of local spending and one measure of municipal spending also for comparison purposes. The former were relatively visible projects where the dictatorship had decision power and the latter is related to the day-to-day functioning of local governments. To measure local spending we use the logarithm of total spending (in monetary units) per capita and the number of projects per capita. To measure municipal spending we use the logarithm of spending per capita.

If the dictatorship was successful at gaining support through public spending before the transition to democracy, then we expect that $\widehat{\gamma}_{TRAN} > 0$ and $\widehat{\gamma}_{TRAN} > \widehat{\gamma}_{DICT}, \widehat{\gamma}_{DEM}$. To be clear, we expect that $\widehat{\gamma}_{TRAN} > \widehat{\gamma}_{DEM}$ because we assume voters knew which coali-

tion was doing the spending and could associate it with old-regime candidates from those coalitions. In addition, we hypothesize that $\widehat{\gamma}_{TRAN} > \widehat{\gamma}_{DICT}$ for two reasons. First, spending during the transition could have been targeted precisely for political purposes. Second, local spending that is closer to the local election should have a higher impact on vote shares simply because of what is known as "recency bias," i.e. the tendency of voters to value recent information more than older information (Berry and Howell, 2007). In any case, whether $\widehat{\gamma}_{TRAN} > \widehat{\gamma}_{DICT}$ or not is ultimately an empirical question.

Table 4 presents estimates of equation (2). Column 1 uses spending per capita as independent variable, column 2 the total number of projects per capita, and column 3 municipal spending per capita. Overall, the results are consistent with the hypothesis that the Pinochet regime was successful at winning political support via public spending in the transition period. To facilitate the interpretation of coefficients we have standardized local and municipal spending. A one standard deviation increase in local spending during the transition period is associated to an increase of 2-4 percentage points in the vote share of dictatorship mayors (columns 2 and 3). In contrast, local spending in other periods has little statistical relationship with vote shares in the 1992 election and the point estimate is also of significantly lower magnitude. Moreover, changes in municipal spending are also *not* statistically associated with vote shares and the vote shares of dictatorship prisoners remain similar across different patterns of spending.

Taken together, the empirical patterns in this table show that local spending can also partially explain the vote premium of dictatorship mayors. What were the economic and political consequences of dictatorship mayors making their way into the new democratic era? The following section offers an empirical strategy to estimate the political and economic consequences of persistent dictatorship mayors.

5 The legacies of dictatorship mayors

What are the political effects of electing dictatorship mayors? Do they perform better or worse than other mayors? These are key questions that speak directly to the functioning of young democracies with recent authoritarian history. In this section, we address these questions by evaluating the legacies of dictatorship mayors on local and presidential elections, and also on the performance of local governments after democratization.

5.1 Econometric strategy: quasi-random council majority

Dictatorship mayors were not randomly placed across municipalities after the 1992 election. Therefore, a simple comparison of outcomes across municipalities with and without them is unlikely to reveal the causal effect of their presence. However, transitory electoral rules in this election help us to approximate a natural experiment in which dictatorship mayors were quasi-randomly elected in a subset of municipalities. In particular, we use the fact that the most-voted candidates within a municipality were elected as councilors and these councilors elected 284 mayors using a simple majority rule. Voters directly elected the mayor in the remaining 50 municipalities as one candidate obtained more than 35% of the vote and was part of the most voted list (section 2). In the 284 municipalities we study, the composition of the council was key since the coalition with the majority of councilors essentially elected the major. The majority in the council was, however, sometimes reached by quasi-random variation in voting patterns that we now describe.

To illustrate our argument, Table 5 considers voting scenarios in a municipality with six councilors. ¹⁶ In some municipalities, the five or six most voted candidates were from the same coalition and elected a mayor from their coalition (cases L1, L2, R1, and R2). Something similar happened if the four most voted candidates and the 6th/7th candidates

 $^{^{16}}$ As discussed in section 2 the size of the council could have also been eight or ten in some municipalities depending on population, but our argument extends naturally to those cases.

were from the same coalition (cases L4 and R3). However, note that in a subset of elections the order of the 6th/7th candidates had a disproportionate impact on the elected mayor (cases L3, L5, R6, and R4). There are two types of cases: (i) a coalition had a majority *because* of the order of the 6th/7th candidates (cases L3 and R4), this is, a different order of these candidates would have made them lose the majority; and (ii) coalitions are equally represented but a different order of the 6th/7th candidate would have caused a majority (cases L5 and R6 below). Thus the quasi-random variation in council majority is embedded in the order of these marginal candidates in a subset of races.

We focus on the subset of municipalities in which the order of the marginal candidates affected which coalition had the majority in the council. The councils that marginally obtained a left-wing majority never elected a dictatorship mayor, but had the order of the marginal candidates been different, the council could have elected a dictatorship mayor. We observe 104 races where the order of the marginal candidates affected which coalition had the majority. The vote difference between the marginal candidates in these municipalities was on average 1.2 percentage points.¹⁷ More precisely, we estimate the equation:

$$Y_{ct} = \beta \cdot \text{Dict mayor}_{c,1992} + \gamma X_{c,1992} + \phi_t + \varepsilon_{ct}$$
 (3)

where Y_{ct} is an outcome of interest in municipality c measured in year t > 1992 and Dict mayor_{c,1992} is an indicator that equals one if a dictatorship mayor was elected in municipality c in 1992, and zero otherwise. The vector $X_{c,1992}$ includes the voting margin between the marginal candidates and indicators for the size of the council. We allow the error term ε_{ct} to be correlated within municipalities and include year fixed effects ϕ_t .

As discussed, many omitted variables could explain the election of a dictatorship mayor and the subsequent performance of a municipality. To overcome this endogeneity problem, we estimate equation (3) using a two-stage least squares (2SLS) procedure

¹⁷The standard deviation of the vote difference between marginal candidates is 1.1 and the maximum difference is 7.5 percentage points. In the appendix we show that results are robust to focus on the sample of municipalities with vote difference lower than 5 and 2.5 percentage points between the marginal candidates.

based on the marginal candidates. In particular, the first stage equation is given by:

Dict mayor_{c,1992} =
$$\pi \cdot \text{Left-wing majority}_{c,1992} + \tau X_{c,1992} + \nu_c$$
 (4)

where all variables are defined as before and Left-wing majority $_{c,1992}$ is the exogenous instrument, a variable that takes the value of one if there was a left-wing majority in the council, and the value of 0.5 if there was a tie of political forces in the council. Panel A in Table 6 shows that when there was a left-wing majority in a council precisely because of the order of the marginal candidates, the probability of electing a dictatorship mayor decreased by 34 percentage points (p-value<0.01). In fact, dictatorship mayors were never elected when the left-wing coalition had a majority in the council.

If our research design is valid, then municipalities with different council composition – due to the quasi-random order of the marginal candidates – should look politically similar in the years before the dictatorship. Reassuringly, panels B and C in Table 6 show that this seems to be the case. Column 4 shows that in the sub-sample of interest, municipalities with different council composition were similar in terms of their political support for left or right-wing parties in the key presidential election in 1970 and the contended local elections in 1971. Moreover, these municipalities were also similar in terms of their geographic location, the number of houses per capita in 1970, and the percentage of women in 1970.

5.2 Estimation results

We study two sets of outcomes, political and economic legacies. For the former we focus on the vote shares for right-wing candidates in local and presidential elections. To increase the power of our analysis, we stack all elections after the year 1993. Thus,

¹⁸Right-wing candidates were aligned with the dictatorship and many candidates worked for the dictatorship. Tables A.6 and A.7 provide more details about how we grouped candidates and coalitions in left-and right-wing using administrative data from the Electoral Service office.

for each municipality we observe vote shares in six local elections (1996, 2000, 2004, 2008, 2012, 2016) and six presidential elections (1993, 1999, 2005, 2009, 2013, 2017). Moreover, to emphasize the importance of focusing on the subset of municipalities where the composition of the council was determined quasi-randomly, we always present results using *all* municipalities and the subset of 104 municipalities where the order of marginal candidates had a disproportionate impact on the majority in the council.

To measure the performance of mayors, we look at the ratio of revenues to expenditures, and an indicator for misreporting of expenditures, as determined by the General Accounting Office of Chile. We also use administrative data measuring the number of projects implemented and their amount in monetary units. Projects are administrative data from the Ministry of Housing and Urbanism. Although none of these variables perfectly measures the performance of mayors, we believe that when taken as a whole they provide insights about their affairs while in office.

Tables 7 and 8 present two-stage least squares of equation (3). The bottom of these tables always displays the Kleibergen-Paap rk Wald *F*-statistic that measures the statistical strength of the first stage. Reassuringly, these *F*-statistics are always larger than 12, ameliorating concerns about biases associated with weak instruments (Stock and Yogo, 2005). Table 7 studies the impact of dictatorship mayors on the vote share for right-wing candidates in local and presidential elections, and Table 8 studies the performance of dictatorship mayors while in office (1992-1996).

Columns 1 and 2 in Table 7 show that dictatorship mayors are associated with a higher vote share for right-wing candidates in local and presidential elections. This correlation is unsurprising given that these mayors were explicitly or implicitly linked to the right-wing coalition. Columns 3 and 4 present estimates using our econometric strategy and thus the causal impact of dictatorship mayors on right-wing vote shares. These estimates suggest that, when a dictatorship mayor was elected in 1992, the vote share of right-wing candidates in democracy increased by approximately 20 percentage points in local

elections and by approximately 16 percentage points in presidential elections. These are economically meaningful estimates similar in magnitude to prominent estimates of incumbency advantage in the political economy literature (e.g. Lee 2008).¹⁹

In contrast to the political outcomes, we find little difference in the performance of dictatorship mayors when compared to other mayors in democracy. Table 8 cannot reject that municipalities with and without dictatorship mayors in 1992 performed similarly in the early 1990s. Moreover, the sign of coefficients is inconsistent across columns, sometimes suggesting that in municipalities with dictatorship mayors there was less corruption (column 8) and sometimes suggesting worse performance as measured by fewer monetary resources invested in projects (column 5). Moreover, the confidence intervals of these estimates is relatively large. Taken together, we interpret these estimates as inconclusive about the performance of (elected) dictatorship mayors after the transition to democracy.

The impact of dictatorship mayors on vote shares for right-wing candidates after the transition to democracy is a robust finding. Table A.10 shows that the estimates are similar when we drop the few municipalities where the vote difference between marginal candidates was larger than 5 percentage points (see columns 1 and 2). Moreover, columns 3 and 4 show that the estimates remain similar even when we only employ the sub-sample of municipalities where this vote difference was lower than 2.5 percentage points. In the case of performance-related outcomes we again find inconclusive evidence when focusing on this smaller sample of municipalities (Table A.11). Finally, Tables A.12 and A.13 show that all previous results are similar if we include as additional controls the square of the vote difference between marginal candidates in and out of the council and all predetermined county characteristics in panels B and C of Table 6.

¹⁹Tables A.8 and A.9 present two-stage least squares results by election year. Although the impact on right-wing vote shares appears to be decreasing in local elections over time, this pattern is less clear in presidential elections.

6 Conclusion

We have shown that mayors appointed by the Pinochet dictatorship in Chile obtained a vote premium in the first local election. An incumbency advantage and an increase in local spending before the transition can explain this result. Because these mayors are associated to more votes for right-wing parties in democracy, these findings reveal new ways in which dictatorships can influence the functioning of young democracies.

The results in this paper suggest that policies limiting the participation of dictatorship politicians in elections in a new democracy have the potential to reduce the influence of the previous authoritarian regime. Even in the absence of an increase in local spending, the existence of an incumbency advantage implies that dictatorship politicians will always obtain more votes. When authoritarian regimes hold local elections, the competitiveness of these races and the representation of opposition parties can naturally affect whether the body of elected officials can or should participate in subsequent democratic elections.

Two limitations are important to mention to interpret the results in this study. First, besides local spending in projects there might be additional strategies used by incumbent dictatorships to preserve their political power. Examples include an improvement in the provision of police services, public education, public health, or other state services more generally. An increase in projects could crowd-out some of these other services or could complement them. Second, some democratizations might be more abrupt than a democratization by election and, precisely because of it, these transitions restrict the ability of incumbent dictators to strategically act to transmit their power across regimes.

Finally, we believe this study opens new questions about the fate of dictatorship politicians after a democratization. In Chile many politicians started their careers by being appointed during the Pinochet years and remain working in powerful positions in the public sector until today. Whether this creates inefficiencies needs to be better understood empirically. In addition, more work is necessary to understand if authoritarian regimes are able

to allocate resources across municipalities efficiently or not. Uncontested political power might facilitate the extraction of rents but it might also allow accomplishing projects that might be more difficult to pursue when negotiating with others.

References

- Acemoglu, D. (2008). Oligarchic versus democratic societies. *Journal of the European Economic Association*, 6(1):1–44.
- Acemoglu, D. and Robinson, J. (2008). Persistence of power, elites, and institutions. *American Economic Review*, 98(1):267–293.
- Acemoglu, D., Ticchi, D., and Vindigni, A. (2011). Emergence and persistence of inefficient states. *Journal of the European Economic Association*, 9(2):177–208.
- Albertus, M. (2019). The fate of former autoritharian elites under democracy. *Journal of Conflict Resolution*, 63(3):727–759.
- Albertus, M. and Menaldo, V. (2014). Gaming democracy: Elite dominance during transition and the prospects for redistribution. *British Journal of Political Science*, 44(3):575–603.
- Albertus, M. and Menaldo, V. (2018). *Authoritarianism and the Elite Origins of Democracy*. Cambridge University Press.
- Bagues, M. and Esteve-Volart, B. (2016). Politicians' luck of the draw: Evidence from the Spanish christmas lottery. *Journal of Political Economy*, 124(5):1269–1294.
- Bautista, M. A., González, F., Martínez, L., Muñoz, P., and Prem, M. (2020). The geography of dictatorship and opposition to autocracy. *American Journal of Political Science*.
- Berman, E., Shapiro, J., and Felter, J. (2011). Can hearts and minds be bought? The economics of counterinsurgency in Iraq. *Journal of Political Economy*, 119(4):766–819.
- Berry, C. and Howell, W. (2007). Accountability and local elections: rethinking retrospective voting. *Journal of Politics*, 69(3):844–858.
- Besley, T. and Coate, S. (2003). Elected versus appointed regulators: Theory and evidence. *Journal of the European Economic Association*, 1(5):1176–1206.

- Brownlee, J. (2007). Hereditary succession in modern autocracies. *World Politics*, 59(4):595–628.
- Camus, A. (2014). *Doña Lucía*. Penguin Random House.
- Cavallo, A., Salazar, M., and Sepúlveda, O. (2011). *La Historia Oculta del Régimen Militar: Memoria de una Época 1973–1988*. Uqbar editores.
- Chen, Y. and Yang, D. Y. (2019). The impact of media censorship: 1984 or brave new world? *American Economic Review*, 109(6):2294–2332.
- Choi, S., Gulati, M., and Posner, E. (2010). Professionals or politicians: The uncertain empirical case for an elected rather than appointed judiciary. *Journal of Law, Economics, and Organization*, 26(2):290–336.
- Colonnelli, E., Prem, M., and Teso, E. (2020). Patronage and selection in public sector organizations. *American Economic Review*.
- Dal Bó, E., Dal Bó, P., and Snyder, J. (2009). Political dynasties. *Review of Economic Studies*, 76(1):115–142.
- Dal Bó, E. and Finan, F. (2018). Progress and perspectives in the study of political selection. *Annual Review of Economics*, 10:541–75.
- Díaz, J. and Maturana, C. (1994). Las elecciones municipales de 1992 en Chile. *Revista de Derecho Político*, (38):473–504.
- Donaldson, D. (2018). Railroads of the Raj: Estimating the impact of transportation infraestructure. *American Economic Review*, 108(4):899–934.
- Erikson, R. and Titiunik, R. (2015). Using regression discontinuity to uncover the personal incumbency advantage. *Quarterly Journal of Political Science*, 10(1):101–119.
- Faber, B. (2014). Trade integration, market size, and industrialization: Evidence from China's national trunk highway system. *Review of Economic Studies*, 81(3):1046–1070.
- Fafchamps, M. and Labonne, J. (2019). Family networks and distributive politics. *Journal of the European Economic Association*.
- Farfán, C. and Vega, F. (2009). *La Familia. Historia Privada de los Pinochet*. Random House Mondadori.
- Ferraz, C., Finan, F., and Martinez-Bravo, M. (2020). Political power, elite control, and long-run development: Evidence from Brazil. *Working Paper*.

- Fiva, J. H. and Smith, D. M. (2018). Political dynasties and the incumbency advantage in party-centered environments. *American Political Science Review*, 112(3):706–712.
- Fowler, A. and Hall, A. (2014). Disentangling the personal and partisan incumbency advantages: Evidence from close elections and term elections. *Quarterly Journal of Political Science*, 9(4):1142–1164.
- Geddes, B., Wright, J., and Frantz, E. (2018). *How Dictatorships Work: Power, Personalization, and Collapse*. Cambridge University Press.
- González, F. and Prem, M. (2020). Losing your dictator: Firms during political transition. *Journal of Economic Growth*, 25(2):227–257.
- González, F., Prem, M., and Urzúa, F. (2020). The privatization origins of political corporations: Evidence from the Pinochet regime. *Journal of Economic History*, 80(2):417–456.
- Hessami, Z. (2018). Accountability and incentives of appointed and elected public officials. *Review of Economics and Statistics*, 100(1):51–64.
- Honna, J. (2010). The legacy of the new order military in local politics. In *Soeharto's New Order and Its Legacy: Essays in honour of Harold Crouch*. ANU Press.
- Hornbeck, R. and Donaldson, D. (2016). Railroads and American economic growth: A "market access" approach. *Quarterly Journal of Economics*, 131(2):799–858.
- Huneeus, C. (2006). *The Pinochet Regime*. Lynne Rienner Publishers.
- Huntington, S. (1991). *The Third Wave*. Norman: University of Oklahoma Press.
- Labonne, J. (2013). The local electoral impacts of conditional cash transfers: Evidence from a field experiment. *Journal of Development Economics*, 104:73–88.
- Lee, D. S. (2008). Randomized experiments from non-random selection in U.S. House elections. *Journal of Econometrics*, 142:675–697.
- Levin, J. and Tadelis, S. (2010). Contracting for government services: Theory and evidence from U.S. cities. *Journal of Industrial Economics*, LVIII(3):507–541.
- Linz, J. J. and Stepan, A. (1996). *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe*. Baltimore: Johns Hopkins University Press.
- Manacorda, M., Miguel, E., and Vigorito, A. (2011). Government transfers and political support. *American Economic Journal: Applied Economics*, 3(3):1–28.

- Mardones, R. (2006). Descentralización y transición en Chile. *Revista de Ciencia Política*, 26(1):3–24.
- Martínez Bravo, M. (2014). The role of local officials in new democracies: Evidence from Indonesia. *American Economic Review*, 104(4):1244–87.
- Martinez-Bravo, M., Miquel, G. P. I., Qian, N., and Yao, Y. (2017). The rise and fall of local elections in china: Theory and empirical evidence on the autocrat's trade-off. Technical report, National Bureau of Economic Research.
- Martínez Bravo, M., Mukherjee, P., and Stegmann, A. (2017). The non-democratic roots of elite capture: Evidence from Soeharto mayors in Indonesia. *Econometrica*, 85(6):1991–2010.
- Martínez Bravo, M., Padró-i-Miquel, G., Qian, N., and Yao, Y. (2018). The rise and fall of local elections in China: Evidence on the autocrat's trade-off. *Working Paper*.
- Marx, B. (2018). Elections as incentives: Project completion and visibility in African politics. *Working Paper*.
- Michaels, G. (2008). The effect of trade on the demand for skill: Evidence from the interstate highway system. *Review of Economics and Statistics*, 90(4):683–701.
- Myerson, R. B. (2015). Moral hazard in high office and the dynamics of aristocracy. *Econometrica*, 83(6):2083–2126.
- Nunn, N. (2020). The historical roots of economic development. *Science*, 367(6485):eaaz9986.
- O'Donnell, G. and Schmitter, P. C. (1986). *Transitions from Authoritarian Rule: Tentative Conclusions about Uncertain Democracies*. The Johns Hopkins University Press.
- Robinson, R. and Hadiz, V. (2004). *Reorganizing Power in Indonesia: The Politics of Oligarchy in an Age of Markets*. London: Routledge.
- Stock, J. and Yogo, M. (2005). Testing for weak instruments in linear IV regression. In *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*, chapter 5, pages 80–108.
- Treisman, D. (2020). Democracy by mistake: How the errors of autocrats trigger transitions to freer government. *American Political Science Review*.
- Valdivia, V., Álvarez, R., and Donoso, K. (2012). *La Alcadización de la Política. Los Municipios en la Dictadura Pinochetista*. Santiago de Chile: LOM Ediciones.
- Voigtländer, N. and Voth, H.-J. (2018). Highway to Hitler. Working Paper.

Xu, G. (2018). The costs of patronage: Evidence from the Briitish Empire. *American Economic Review*, 108(11):3170–3198.

Figure 1: Timeline of events and data collection

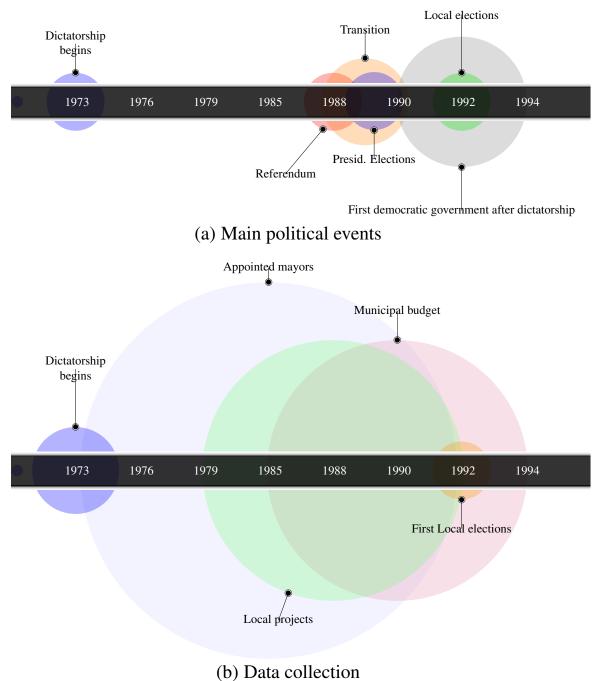
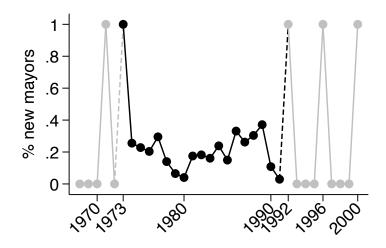
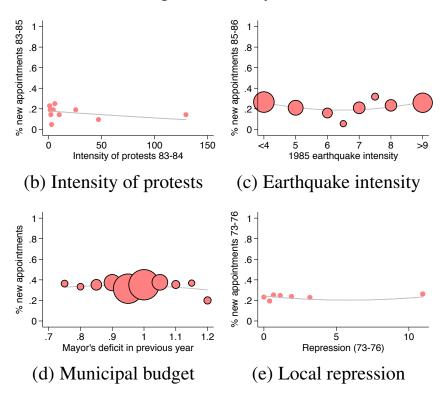


Figure 2: The appointments of dictatorship mayors

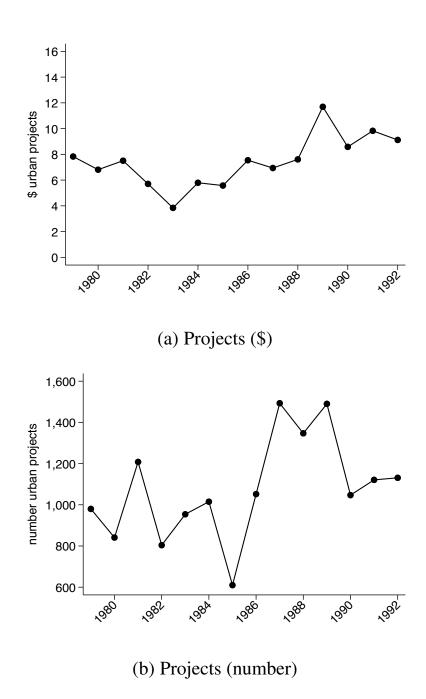


(a) Percentage of new mayors over time



Notes: Panel (a) shows the percentage of new mayors over time. The bottom four panels show that mayors were *not* removed after events that were likely to reveal performance. Section 3 provides more details. Local repression in panel (e) is measured as the number of people killed by the dictatorship per 10,000 inhabitants in the municipality.

Figure 3: Projects



Notes: Time series variation in local spending in projects. Administrative data from annual reports of the Ministry of Housing and Urbanism. Section 3 presents more details.

 Table 1: Descriptive statistics

	Mean	St. Dev.	Min	Max
	(1)	(2)	(3)	(4)
Mayors appointed by Pinochet (N=1,104)				
Years of tenure (1973–1987)	4.14	3.60	1.00	15.00
Municipalities per mayor (1973–1987)	1.04	0.21	1.00	3.00
Municipalities (N=333)				
Number of mayors (1973–1987)	3.22	1.61	1.00	8.00
Spending in projects per capita (1979–1987)	50.16	358.22	0.00	6305.66
Number of projects per capita (1979–1987)	16.85	23.55	0.00	327.87
Budget: deficit (1985–1987)	1.09	0.89	0.38	10.72
Budget: revenues per capita (1985–1987)	15.05	35.58	0.24	605.12
Budget: spending per capita (1985–1987)	14.94	34.98	0.35	594.41

Notes: Descriptive statistics for 1,104 dictatorship mayors in the upper panel and for 333 counties in the lower panel. All variables are measured until the year before the democratization announcement (1988). Section 3 presents more details.

Table 2: Dictatorship mayors in the first democratic local election

The dependent variable is the vote share of candidates in the 1992 local election

	(1)	(2)	(3)	(4)
Dictatorship mayor	9.04***	8.96***	9.39***	6.53***
	(0.76)	(0.78)	(0.77)	(0.92)
Dictatorship prisoner	0.21	0.51	1.16***	1.15***
	(0.32)	(0.33)	(0.31)	(0.31)
Incumbent mayor				6.03***
				(1.52)
Candidates (observations)	6,497	6,497	6,497	6,497
Municipalities	333	333	333	333
Municipality fixed effects		X	X	X
Political party fixed effects			X	X
Avg. dependent variable	5.13	5.13	5.13	5.13

Notes: Each observation is a candidate in the 1992 local election. The number of dictatorship prisoners is 514, the number of dictatorship mayors is 246, and the number of incumbent dictatorship mayors is 117. Standard errors clustered by municipality in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 3: Incumbency advantage in the 1996 local elections

The dependent variable is the vote share of a candidate in the 1996 local elections

	Municipality races included in the estimation:								
		A	Only incumbents and runner-ups from previous election						
	(1)	(2)	(3)	(4)	(5)	(6)			
Incumbent	23.27*** (0.78)	23.29*** (0.80)	22.20*** (0.82)	22.18*** (0.86)	12.97*** (1.34)	13.41*** (1.49)			
Incumbent × Dictatorship mayor				-8.26*** (2.74)		-3.10 (5.49)			
Dictatorship mayor				9.90*** (1.13)		1.54 (3.78)			
Candidates (observations) Municipalities	5,466 341	5,466 341	5,466 341	5,466 341	474 214	474 214			
Municipality fixed effects Political party fixed effects		X	X X	X X	X X	X X			
Avg. dependent variable	6.24	6.24	6.24	6.24	22.69	22.69			

Notes: Each observation is a candidate in the 1996 local elections. There are 355 incumbent mayors running for reelection, 38 of which were dictatorship mayors. In addition, 123 dictatorship mayors were non-incumbent candidates. Columns 1-4 include all candidates. Columns 5-6 only include winners (incumbents) and runner-ups from the 1992 elections who decided to run in the 1996 local elections, which occurred in 214 municipalities. In this sub-sample there are 260 incumbent mayors running for reelection, 27 of which were dictatorship mayors. In addition, there were 40 dictatorship mayors who were the runner-ups in 1992. Standard errors clustered by municipality in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 4: Local elections and local spending in projects

The dependent variable is the vote share of candidates in the 1992 local election

Local spending variable:	Develop	Municipal spending			
	Log spending per capita	Number of projects per capita	Log spending per capita		
	(1)	(2)	(3)		
Dictatorship mayor	9.51***	9.51***	9.42***		
• •	(0.77)	(0.77)	(0.74)		
× Spending in democracy	0.16	-0.02	2.81		
,	(1.13)	(1.15)	(3.08)		
× Spending in transition	2.44*	3.56**	-0.52		
1 0	(1.29)	(1.48)	(3.41)		
× Spending in dictatorship	-0.03	0.79	1.16		
1 0 1	(0.94)	(0.90)	(1.93)		
Dictatorship prisoner	1.11***	1.18***	1.05***		
	(0.32)	(0.38)	(0.33)		
× Spending in democracy	-0.38	0.19	1.19		
	(0.72)	(0.63)	(1.10)		
× Spending in transition	0.70	0.97	-1.30		
	(0.46)	(0.78)	(1.17)		
× Spending in dictatorship	-0.01	-0.65	-0.22		
1 6 1	(0.92)	(1.55)	(0.69)		
Candidates (observations)	6,274	6,274	6,274		
Municipalities	324	324	324		
Municipality fixed effects	X	X	X		
Political party fixed effects	X	X	X		
Avg. dependent variable	5.164	5.164	5.164		

Notes: Each observation is a candidate in the 1992 local elections. The number of dictatorship mayors is 246 and the number of dictatorship prisoners is 514. Robust standard errors clustered at the municipality level in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1. See section 4 for details.

Table 5: Hypothetical voting scenarios

	Restricted sample											
	(L1)	(L2)	(L3)	(L4)	(L5)		(R6)	(R5)	(R4)	(R3)	(R2)	(R1)
Candidate 1	L	L	L	L	L		R	R	R	R	R	R
Candidate 2	L	L	R	R	R		L	L	L	L	R	R
Candidate 3	L	R	L	L	L		R	R	R	R	L	R
Candidate 4	L	L	R	R	R		L	L	L	L	R	R
Candidate 5	L	L	L	L	R		L	R	R	R	R	R
Candidate 6	L	L	L	L	L		R	L	R	R	R	R
Candidate 7	L	L	R	L	R		L	R	L	R	R	R
:												
Candidate <i>N</i>												

Notes: Hypothetical order of left- (L) and right-wing (R) candidates in a municipality after the 1992 local election. The six most voted candidates became councilors and elected the mayor whenever the most voted candidate obtained less than 35% of voters or was not part of the most voted list. A list is a group of political parties. "Restricted sample" corresponds to the subset of municipalities where the order of the 6th/7th candidates had a disproportionate impact on the majority in the council.

Table 6: Summary statistics and differences by council majority

	Summa	ary statistics	Difference b	y council majority
	All	Restricted sample	All	Restricted sample
	(1)	(2)	(3)	(4)
Panel A: First stage				
Dictatorship mayor elected	0.12	0.16	-0.30***	-0.34***
	(0.33)	(0.37)	(0.06)	(0.10)
Panel B: Electoral outcomes				
Vote share Allende in 1970	35.14	33.20	10.59***	3.66
	(13.27)	(13.20)	(2.30)	(4.89)
Vote share Alessandri in 1970	34.57	35.59	-6.85***	1.05
	(9.40)	(8.91)	(1.85)	(3.06)
Vote share UP in municipal elections 1971	0.34	0.30	0.11	-0.23
	(0.48)	(0.46)	(0.09)	(0.18)
Panel C: Other				
Log distance to regional capital	3.84	4.04	-0.98***	-0.60
	(1.25)	(0.89)	(0.19)	(0.36)
Log distance to Santiago	5.44	5.60	-0.76***	-0.54
	(1.54)	(1.33)	(0.25)	(0.45)
Houses per capita	0.22	0.22	-0.03*	-0.00
	(0.09)	(0.12)	(0.02)	(0.04)
Percentage of women	0.49	0.48	0.02*	0.01
	(0.04)	(0.05)	(0.01)	(0.01)
Municipalities	284	104	284	104

Notes: Summary statistics in columns 1-2. Columns 3-4 show the coefficient from a regression of each variable on Council Composition (1 if left-wing majority, 0.5 if tied council, 0 if right-wing majority). Robust standard errors in parenthesis in columns 3-4. Significance level: *** p<0.01, ** p<0.05, * p<0.1

Table 7: The political legacies of dictatorship mayors

The dependent variable is the vote share of right-wing candidates

	All Mur	nicipalities	-	es with a close omposition
	Municipal Elections	Presidential Elections	Municipal Elections	Presidential Elections
	(1)	(2)	(3)	(4)
Dictatorship mayor elected	41.16*** (11.88)	33.84*** (9.16)	19.85* (11.13)	15.86** (6.71)
Municipality-year observations	1,702	1,704	624	624
R-squared	0.723	0.905	0.800	0.956
Avg. dependent variable	36.12	40.91	37.91	41.84
K-P F-statistic	20.68	20.68	12.23	12.23

Notes: All specifications control by municipality size category, margin of victory, and include year fixed effects. Standard errors clustered at the municipality level in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

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Table 8: The performance of dictatorship mayors

		All Mun	icipalities		Municipalities with a close council composition				
	Projects (Money) (1992-1996)	Projects (Number) (1992-1996)	Budget Deficit (1993-1994)	Misreported Expenditures (1996)	Projects (Money) (1992-1996)	Projects (Number) (1992-1996)	Budget Deficit (1993-1994)	Misreported Expenditures (1996)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Dictatorship mayor elected	-4.90** (2.39)	5.31 (9.47)	0.01 (0.04)	-0.49* (0.29)	-5.50 (3.68)	12.03 (23.99)	0.02 (0.05)	-0.58 (0.43)	
Municipalities	284	284	284	284	104	104	104	104	
Avg. dependent variable	3.068	8.319	1.004	0.327	2.714	9.340	1.004	0.337	
K-P F-statistic	20.50	20.50	20.50	20.50	12.02	12.02	12.02	12.02	

Notes: All specifications control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

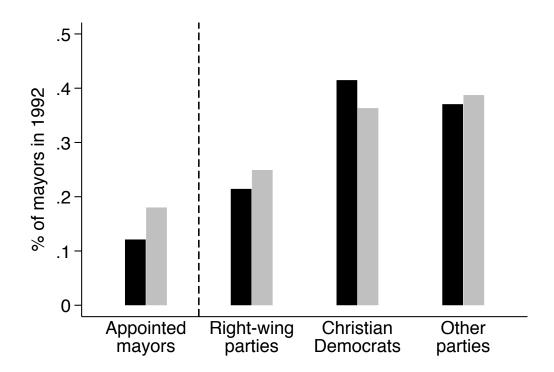
Online Appendix

Lost in transition? The persistence of dictatorship mayors

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Figure A.1: Who profited from the electoral rule in the 1992 election



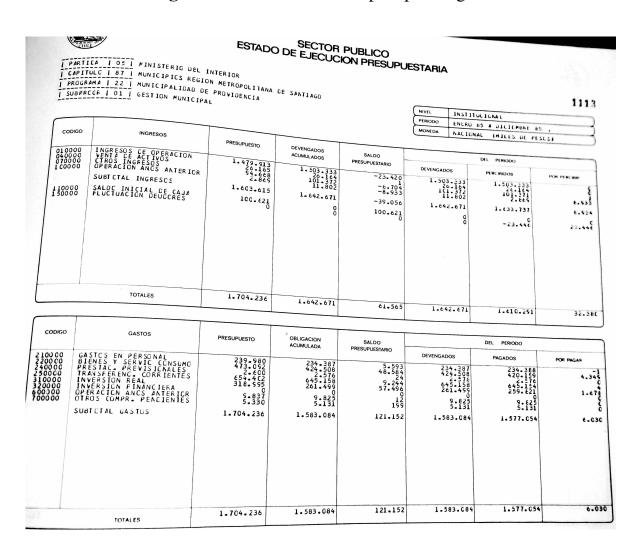
Notes: Electoral results (**black bars**) and counterfactual results (**gray bars**) in the 1992 local elections under different electoral rules. Percentage of mayors by appointed or not in the left part of the figure and by political party in the right part of the figure. Black bars indicate the actual percentage of mayors elected, while gray bars represent the percentage of mayors elected in a counterfactual world with a simple majority rule to elect mayors. Section 2 provides more details.

Figure A.2: Data on projects

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MUE QUILLOTA Condell El Bajio								

Notes: Section 3 provides more details.

Figure A.3: Data on municipal spending



Notes: Section 3 provides more details.

Table A.1: Additional descriptive statistics

	Mean (1)	St. Dev. (2)	Min (3)	(4)	Counties (5)
Indicator misreporting local finance (1996)	0.35	0.48	0.00	1.00	333
Municipal budget deficit (1993–1994)	1.00	0.06	0.76	1.36	333
Spending projects per capita (in \$, 1992–1996)	3.09	3.88	0.00	36.18	333
Number of projects per capita (1992–1996)	9.46	15.12	0.00	178.04	333

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Notes: Data for misreporting of local finance and budget deficit comes from the General Accounting Office. Data for projects comes from annual reports of the Ministry of Housing and Urbanism.

Table A.2: Who runs in 1992 local elections?

The dependent variable is an indicator for dictatorship mayors who decided to ran in the 1992 local election

	(1)	(2)	(3)	(4)	(5)	(6)
Years in office	0.01***	0.01***	0.01***	0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
First year in (1976,1982)	-0.01	-0.01	-0.01	-0.00	-0.00	-0.00
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
First year in (1983,1988)	0.14***	0.14***	0.14***	0.02	0.02	0.02
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
Log municipal spending per capita in dict		0.01	0.01		0.01	0.01
		(0.02)	(0.02)		(0.02)	(0.02)
Log development spending per capita in dict		0.00	0.00		-0.00	-0.00
		(0.02)	(0.02)		(0.02)	(0.02)
N of development projects per capita in dict		-0.01	-0.01		-0.00	-0.00
		(0.02)	(0.02)		(0.02)	(0.02)
Vote share NO			-0.00			-0.00
			(0.00)			(0.00)
Female	0.08*	0.08*	0.08*	0.07	0.07	0.07
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
First year in $(1983,1988) \times \text{Years in office}$				0.03***	0.03***	0.03***
				(0.01)	(0.01)	(0.01)
First year in $(1976,1982) \times \text{Years in office}$				-0.00	-0.00	-0.00
				(0.01)	(0.01)	(0.01)
Observations	1,100	1,100	1,100	1,100	1,100	1,100
R-squared	0.078	0.079	0.079	0.091	0.091	0.091
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Avg. dependent variable	0.168	0.168	0.168	0.168	0.168	0.168

Notes: Each observation is a dictatorship mayor. Standard errors are robust to heteroscedasticity. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A.3: Winners in the first local election

The dependent variable is an indicator for the winners of the 1992 local election

	(1)	(2)	(3)	(4)
Designated mayor	0.15***	0.15***	0.18***	0.13***
	(0.03)	(0.03)	(0.03)	(0.03)
Dictatorship prisoner	0.01	0.01	0.02*	0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Incumbent mayor				0.10**
				(0.05)
Candidates	6,497	6,497	6,497	6,497
Municipalities	333	333	333	333
R-squared	0.02	0.03	0.11	0.11
Municipality fixed effects		X	X	X
Political party fixed effects			X	X
Mean of dependent variable	0.07	0.07	0.07	0.07

Notes: Each observation is a candidate in the 1992 local election. The number of dictatorship prisoners is 514 and the number of dictatorship mayors is 246. Standard errors clustered by municipality in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A.4: Robustness to flexible fixed effects by party in 1992

	Vote	share	Indicato	r elected
	(1)	(2)	(3)	(4)
Dictatorship mayor	9.37***	9.50***	0.18***	0.18***
	(0.77)	(0.76)	(0.03)	(0.03)
Dictatorship prisoner	1.13***	1.18***	0.02*	0.03**
	(0.31)	(0.30)	(0.01)	(0.01)
Candidates	6,491	6,481	6,491	6,481
Municipalities	333	333	333	333
Municipality fixed effects	X	X	X	X
Political party by region fixed effects	X		X	
Political party by province fixed effects		X		X
Avg. dependent variable	5.13	5.13	0.07	0.07

Notes: Each observation is a candidate in the 1992 local election. The number of dictatorship mayors is 246, the number of dictatorship prisoners is 514, and the number of incumbent dictatorship mayors is 117. Standard errors clustered by municipality in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

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Table A.5: Robustness to flexible fixed effects by party in 1996

The dependent variable is the vote share of candidates in the 1996 local election

Sample:	Full	Restricted	Full	Restricted	Full	Restricted	Full	Restricted
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Incumbent	21.96***	13.36***	21.96***	14.56***	21.97***	13.74***	21.97***	13.88***
	(0.81)	(1.63)	(0.85)	(1.88)	(0.81)	(1.85)	(0.85)	(2.19)
Incumbent × Dictatorship mayor			-8.38***	-8.25			-8.83***	-0.98
			(2.76)	(6.81)			(2.70)	(8.11)
Dictatorship mayor			10.05***	5.56			10.55***	1.16
			(1.12)	(4.57)			(1.14)	(5.05)
Candidates (observations)	5,463	436	5,463	436	5,435	396	5,435	396
R-squared	0.459	0.528	0.482	0.533	0.471	0.629	0.496	0.630
Municipalities	341	196	341	196	340	179	340	179
Municipality fixed effects	X	X	X	X	X	X	X	X
Political party by region fixed effects	X	X	X	X				
Political party by province fixed effects					X	X	X	X
Avg. dependent variable	6.242	22.70	6.242	22.70	6.248	22.88	6.248	22.88

Notes: Each observation is a candidate in the 1996 local election. The full sample includes all candidates, while the restricted sample only includes winners (incumbents) and runner-ups from the 1992 elections who decided to run in the 1996 local elections, which occurred in 214 municipalities. In this sub-sample there are 260 incumbent mayors running for reelection, 27 of which were dictatorship mayors. In addition, there were 40 dictatorship mayors who were the runner-ups in 1992. Standard errors clustered by municipality in parenthesis. Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A.6: Candidates presidential elections 1993 – 2017

Coalition	1993	1999	2005	2009	2013	2017
Right-wing	A. Alessandri J. Piñera	J. Lavín	S. Piñera J. Lavín	S. Piñera	E. Matthei	S. Piñera J.A. Kast
Left-wing	E. Frei M. Max Neef E. Pizarro C. Reitze	R. Lagos G. Marín T. Hirsch	M. Bachelet T. Hirsch	E. Frei J. Arrate M. Enríquez	M. Bachelet M. Enríquez M. Claude A. Sfeir R. Miranda	A. Guillier C. Goic M. Enríquez E. Artés A. Navarro B. Sánchez

Notes: Own construction based on administrative data from the Electoral Service.

X.

Right-wing

Left-wing

P. Comunista

2004 1996 2000 2008 2012 2016 Participación y Prog. Alianza Alianza Chile Vamos Alianza Alianza U. Centro Centro Centro Centro Centro Centro Amplitud Concertación Dem. Concertación Dem. Nueva Mayoría Juntos Podemos Chile en Otra Concertación Concertación Cambiemos la Historia Concertación Hum. y Eco. El Cambio Por Ti

Concertación Prog.

Chile Limpio

Fza. Norte

Más Humanos

Desarrollo Norte

Chile Justo

Yo Marco por el Cambio

Alternativa Democrática

Other (smaller)

Table A.7: Coalitions local elections 1996 – 2016

Juntos Podemos

Hum. y Eco.

Notes: Own construction based on administrative data from the Electoral Service.

La Izquierda

Humanistas y Ecologistas

Table A.8: Results by year, local elections

	1996 (1)	(2)	(3)	(4)	(5)	(6)
Dictatorship mayor	50.21*** (18.95)	22.81 (14.87)	31.99* (16.41)	6.13 (12.97)	12.96 (14.43)	-4.98 (16.87)
Municipalities	104	104	104	104	104	104
R-squared	0.742	0.864	0.780	0.815	0.774	0.776
Avg. dependent variable	39.39	40.51	36.77	36.51	36.24	38.04
KP F-test	12.02	12.02	12.02	12.02	12.02	12.02

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.9: Results by year, presidential elections

	1993	1999	2005	2009	2013	2017
	(1)	(2)	(3)	(4)	(5)	(6)
Dictatorship mayor	17.42**	21.18**	12.67**	10.24	12.60**	21.03**
	(7.20)	(9.55)	(6.40)	(6.73)	(6.18)	(9.31)
Municipalities	104	104	104	104	104	104
R-squared	0.934	0.955	0.972	0.968	0.900	0.951
Avg. dependent variable	32.10	51.26	50.66	45.28	23.89	47.83
KP F-stat	12.02	12.02	12.02	12.02	12.02	12.02

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.10: Robustness to smaller vote margins, political legacies

The dependent variable is the vote share of right-wing candidates

	Vote Mai	rgin <5 pp.	Vote Margin <2.5 pp.			
	Municipal Elections	Presidential Elections	Municipal Elections	Presidential Elections		
	(1)	(2)	(3)	(4)		
Dictatorship mayor	20.17* (11.25)	15.30** (6.76)	23.31* (13.75)	15.69** (7.62)		
Observations	618	618	552	552		
R-squared	0.798	0.958	0.801	0.961		
Avg. dependent variable	37.89	41.91	37.98	41.71		
KP F-stat	12.35	12.35	8.863	8.863		

Notes: Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category, victory margin, and include year fixed effects. Standard errors clustered at the municipality level in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

VΧ

 Table A.11: Robustness to smaller vote margins, performance

	Vote Margin <5 pp.				Vote Margin <2.5 pp.				
	Projects (Money) (1992-1996)	Projects (Number) (1992-1996)	Budget Deficit (1993-1994)	Misreported Expenditures (1996)	Projects (Money) (1992-1996)	Projects (Number) (1992-1996)	Budget Deficit (1993-1994)	Misreported Expenditures (1996)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Dictatorship mayor	-5.73 (3.75)	11.94 (24.60)	0.02 (0.05)	-0.62 (0.43)	-6.12 (4.25)	15.30 (29.37)	0.01 (0.05)	-0.70 (0.50)	
Municipalities	103	103	103	103	92	92	92	92	
R-squared	0.305	0.209	0.996	0.186	0.296	0.174	0.996	0.141	
Avg. dependent variable	2.718	9.377	1.004	0.340	2.778	9.729	1.001	0.315	
KP F-stat	12.15	12.15	12.15	12.15	8.697	8.697	8.697	8.697	

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.12: Robustness to additional controls, political legacies *The dependent variable is the vote share of right-wing candidates*

	Municipa	al Elections	Presidential Election		
	(1)	(2)	(3)	(4)	
Dictatorship mayor	20.01*	21.86	15.47**	19.56*	
	(11.06)	(15.18)	(6.68)	(10.21)	
Observations	624	516	624	516	
R-squared	0.800	0.811	0.958	0.964	
Avg. dependent variable	37.91	37.35	41.84	41.22	
KP F-stat	12.39	6.100	12.39	6.100	

Yes

No

+ Vote Margin²

+ Other Controls

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category, victory margin, and include year fixed effects. Other controls include all municipality characteristics presented in Table 6. Standard errors clustered at the municipality level in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Yes

Yes

Yes

No

Yes

Yes

Table A.13: Robustness to additional controls, performance

	Projects (Money) (1992-1996)		Projects (Number) (1992-1996)		Budget Deficit (1993-1994)		Misreported Expenditures (1996)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dictatorship mayor elected	-5.63	-4.40	11.82	-0.51	0.02	0.01	-0.59	-0.71
	(3.66)	(4.18)	(24.07)	(10.08)	(0.05)	(0.06)	(0.43)	(0.70)
Municipalities	104	86	104	86	104	86	104	86
R-squared	0.316	0.536	0.214	0.581	0.996	0.997	0.190	0.298
Avg. dependent variable	2.714	2.682	9.340	7.967	1.004	1.002	0.337	0.384
KP F-stat	12.08	5.290	12.08	5.290	12.08	5.290	12.08	5.290
+ Vote Margin ²	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
+ Other Controls	No	Yes	No	Yes	No	Yes	No	Yes

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category and victory margin. Other controls include all municipality characteristics presented in Table 6. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.