Opposition Rule under Autocracy: Evidence from Russia

David Szakonyi
George Washington University*

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Abstract

How does the opposition govern under autocracy? Most authoritarian regimes tolerate some degree of internal opposition, allowing it to contest and even take power. Yet we know little about how such power-sharing dynamics affect governance. In this paper, I exploit a unique instance where the opposition won control of political institutions in a prominent electoral autocracy: the 2017 Moscow municipal elections. Using a difference-in-differences design, I find that opposition control of municipal councils reduced the financial returns from office for ruling party deputies. This decrease in earnings comes from opposition-held councils removing rent-seeking opportunities by organizing more competitive procurement, reducing unnecessary budget expenditures, and curbing over-the-top compensation. Using a survey experiment, I then show that voters prefer opposition candidates with municipal governing experience over ruling party ones without it. Even in repressive environments, challenging autocratic rule may be well served by joining rather than boycotting institutions.

Verification Materials:

The data and materials required to verify the computational reproducibility of the results, procedures and analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: XXX.

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1 Introduction

Electoral authoritarian regimes risk losing elections. At the national level, the most dramatic of such electoral losses can unseat an autocrat entirely from office, a somewhat infrequent but well-studied phenomenon (Knutsen, Nygård, and Wig, 2017; Treisman, 2020). But more common are autocrats losing power in piecemeal fashion, forced to concede individual positions or sometimes even complete control over institutions to the opposition. Such 'democratic enclaves' are a common feature in many authoritarian regimes, from the judiciary in Tunisia (Corduneanu-Huci, 2019), the Istanbul government in Turkey (Öktem, 2021), or municipal wards in South Africa (Farole, 2021). Opposition control over geographic constituencies can later upend broader politics. For example, Lucardi (2016) finds that local opposition victories diffused across Mexico and built a "springboard" to unseat the ruling party in national elections. Indeed, opposition victories in local elections preceded five out of the six Color Revolutions in Eurasia (Bunce, 2017). Yet we know comparatively less about how the opposition actually governs within the autocratic power vertical.

This paper offers new insights by evaluating the effect of opposition rule on several key governance outcomes, in particular control over corruption. Autocratic states are especially vulnerable to public anger about graft in their ranks, which can trigger mass demonstrations and even lead to regime overthrow (Tucker, 2007; Carothers and Youngs, 2015). Cognizant of this issue for voters, many oppositions around the world have placed anti-corruption front and center in their platforms, promising that if they took power, they would reduce waste and punish officials found stealing at the till (Carothers, 2023; Bågenholm, 2009). But can the opposition deliver on these promises to deliver better more transparency and integrity, especially if the autocrat still holds onto national power? Do oppositions actually govern more impartially, or do they exploit the same rent-seeking opportunities as ruling parties?

To answer these questions, this paper exploits a unique setting where the opposition won control over some autocratic institutions through the ballot box. In late 2017, a coalition of Russian opposition parties and independents won win half or more seats in 29 of 124 municipal councils during the Moscow municipal elections. Municipal deputies may occupy the lowest political rung in Russia, but by virtue of working in the federal center, they are still visible political positions with

close connections to the population and some policymaking levers.

Analyzing a series of difference-in-difference designs, I compare how corruption and other governance outcomes differed between councils held by the opposition versus those held by the regime over the five-year term. My analysis primarily draws on administrative data, including the detailed income and asset disclosures that deputies are required to file every spring. In addition, I conducted interviews with ten former deputes about their time in office and about how budget allocations and anti-corruption efforts were made.[1]

The results first show that opposition rule helps control corruption. Based on within-deputy specifications, deputies from the ruling party earned roughly 22% less income in years where they served in an opposition-held council. There is no effect though the income of their spouses or any evidence that ruling party deputies were better able to hide their corruption. To verify the latter, I analyze two measures of hidden earnings and assets built from verifying disclosures against a database of luxury car ownership in Russia. Finally, members of the opposition saw neither an increase or decrease in their earnings, suggesting that their time in power is marked by less economic favoritism.

To explain why ruling party deputies saw such a drop in income, I ran further difference-in-difference specifications using data on municipal procurement and budgets. Opposition-held councils were significantly more likely to adopt more transparent, more competitive methods – electronic auctions – for procuring goods and services; such methods have been found in other contexts to be associated with less corruption (Tkachenko, Yakovlev, and Kuznetsova, 2017; Pavel, Sičáková-Beblavá et al., 2013). Looking at municipal budgets, I find that opposition councils raised more revenue, decreased expenditures, and increased budget surpluses. Changing the distribution of state resources may be one channel through which regime deputies are cut off from rent streams.

Finally, I investigate how voters evaluate opposition politicians that participate in authoritarian institutions using evidence from a survey of 2,501 Russians in late 2021. An original survey experiment shows that respondents prefer hypothetical independent candidates to the Russian Duma over those from the ruling party only when independents have previously won municipal

[1] This research was approved by my university's IRB (#NCR235251). Due to foreign agent laws that could put subjects at risk in Russia, I was only able to speak with deputiesliving in exile.

election. Having boycotted the electoral system provides no electoral dividend. In other words, voters reward opposition candidates who have prior experience in elected office, even when serving in government means collaborating with the regime. Taking these results together, opposition participation in autocratic governments not only leads to less corruption and waste, it better positions challengers to win over voters.

This paper makes contributions to several distinct literatures. Although a large body of work has documented the various strategies that oppositions use to challenge authoritarian regimes (Helms, 2022; Lindberg, 2006; Gandhi and Ong, 2019), comparatively less attention has been paid to what they actually do and how they govern after taking power. Beyond exploiting office to coordinate national election campaigns Bunce and Wolchik (2011), opposition activists still must tend to the day-to-day business of governance. How they approach these decisions determines whether voters will evaluate their track record in office when higher office is at stake (Langfield, 2014).

I show that even in a highly centralized authoritarian regime such as Russia, opposition forces can co-opt local institutions and impose their own policymaking preferences. But the effects are most observable when the opposition holds a majority of seats and exert greater influence over administrative procedures. Institutional change through reforms and oversight, rather than electoral accountability, may best constrain the behavior of autocratic elites. By shining a light on opposition policy achievements, the paper contributes to current debates about the role and functioning of opposition under autocracy (Reuter and Robertson, 2015; Albrecht, 2005; Armstrong, Reuter, and Robertson, 2020; Szakonyi, 2024). Demonstrating capacity to govern effectively within autocratic institutions may better serve an aspirational opposition than boycotting participation altogether.

Next, I provide causally identified evidence that autocracies which grant the opposition formal access to political institutions observe less corruption in their ranks, a contribution to the debates about how to combat corruption in these regimes (Chang and Golden, 2010; Carothers, 2022; Zhu and Zhang, 2017). By monitoring state processes and increasing scrutiny of previously neglected budget institutions, opposition deputies can change the incentives and opportunities for officials to enrich themselves in office. The benefits of working within institutions to improve accountability and reduce waste may outweigh the reputational costs of collaborating with the regime.

2 Opposing Autocrats

One of the central challenges that autocrats face is how to manage the opposition, in particular when it is well-organized and openly calling for political change. Fearful of triggering backlash over a disregard for democratic norms, only rarely do regimes ban oppositions altogether (Helms, 2021). Instead, autocrats wield a combination of carrots and sticks, at times repressing while other times tolerating some challengers within formal state institutions (Morgenbesser, 2020; Frye, 2022). By granting opposition access to elections, legislatures and even some executive posts, autocrats can acquire critical information about whom their most threatening challengers are, their popularity in society, and their activities (Frantz and Kendall-Taylor, 2014). Oppositions do not always accept the invitation to vie for power, instead opting to boycott elections (Beaulieu, 2014; Buttorff and Dion, 2017; Smith, 2014). Running for office could be viewed as complicit validation of the authoritarian project, conferring undeserved legitimacy hiding behind a veneer of democracy.

Yet much of the literature to date has focused on the opposition's strategic behavior around elections, rather how it governed once elected. In Turkey, Öktem (2021) highlights both a change in rhetoric and media policy when the democratic opposition wrestled Istanbul away from President Erdogan's ruling party, but also a compromising of democratic values seen as necessary for competing later on the national level. Right (2023) also shows the how opposition participation as members of the minority in Cambodian local councils may constrain rent-seeking. But power sharing can also increase regime durability: introducing and maintaining relatively free and fair local elections can also help regimes discipline cadres and improve their responsiveness to citizens (Bohlken, 2016; Martinez-Bravo et al., 2022).

In this paper, I focus on the potential for the opposition to improve government accountability and stop the abuse of state resources. A central tenet in the literature on the causes of corruption is that political institutions, such as democratic competition, matter (Stephenson, 2015; Lederman, Loayza, and Soares, 2005; Potter and Tavits, 2011). For example, the drive to win re-election can generate positive incentives for politicians to curb their rent-seeking behavior in order to better appeal to voters (Ferraz and Finan, 2011). Even if power is not conceded to a true opposition, political turnover can spur improved economic performance in autocratic regimes (Li and Zhou,

2005). Given the importance of accountability, authoritarian regimes that lack it have been found to be especially prone to high levels of corruption (Chang and Golden, 2010).

Taking control over institutions under autocracy, I argue that the opposition has two basic objectives for its time in power. First, translating local electoral victories into national success requires building a public track record different from the authoritarian status quo. In reality, this means reform: curbing waste and corruption, upholding personal ethics, and supplying policy closer to the preferences of the median voter. But crafting a media narrative of being a force against corruption is hard to achieve if opposition politicians are engaging in the same rent-seeking behaviors. A failure to differentiate itself from the regime makes the opposition vulnerable to critiques of irrelevance, ineffectiveness, and corruption.

Second, work on 'springboards' suggests that oppositions enjoy the most success contesting higher levels when they can weaken the mechanisms that authoritarian regimes exploit to reproduce their power over time (Lucardi, 2016). For example, many regimes rely on extensive networks of patronage to co-opt elites and ensure loyalty. Others use administrative resources to induce dependence, weave clientelist ties with voters, and tilt the electoral playing field. Thus, we should expect that upon assuming elected office, the opposition should attempt to undermine the financial channels used to reward cronies and bind voters to the regime.

Success improving government accountability is by no means assured. Abruptly made aware of their geographic vulnerabilities, regimes may concentrate both repression and concessions to knock the opposition off their upwards trajectory, as evidenced by episodes of opposition control in Venezuela (Dickovick and Eaton, 2013), Tanzania (McLellan, 2022), and Zimbabwe (Raftopoulos and Mlambo, 2009). Moreover, regimes can divide and co-opt the opposition to prevent it from capitalizing on its presence in office (Arriola, Devaro, and Meng, 2021; Reuter and Robertson, 2015). Opposition parties may also struggle to govern effectively due to their own internal weaknesses, such as uncompromising stance against negotiating with the regime. Leaders of the opposition may also have ascended to their positions based on their ability to organize protests, rather than their understanding of the nuts and bolts of governing (Farole, 2021). It thus is an open question about what oppositions can actually achieve in power.

3 Institutional Setting

Prior to its 2022 all-out invasion of Ukraine, Russia was classified as an electoral authoritarian regime, where an entrenched ruling party led by personalist leader Vladimir Putin dominated executive and legislative institutions across the country (Gel'man, 2014). Though flawed, elections were still used to select many positions of authority. Opposition to the regime generally falls into two camps. The so-called "systemic" opposition is made up of a small number of nominally independent political parties (the Communist Party, Just Russia, and the Liberal Democratic Party of Russia) that have representation in most of Russia's elected legislative organs. At the national level, these parties rarely openly challenge the regime, instead trading acquiescence for continued access to spoils (March, 2012). In recent years, some lower-level members of the systemic opposition have grown critical of the regime and earned support from some of the regime's most vehement rivals through 'smart voting' campaigns (Turchenko and Golosov, 2023).

Russia's "non-systemic" opposition refers to the diverse array of political groups, activists, and individuals who operate outside the established political framework and actively criticize the regime. Generally viewed as pro-democratic, this opposition has been mostly blocked from acquiring formal political power at any level of government, instead engaging in street protests and civil society initiatives (Gelman, 2015). Various non-systemic opposition leaders, most notably Alexey Navalny, have unsuccessfully tried to run in key elections, but have been met with harassment, legal obstacles, repression, and even murdered by the government (Szakonyi, 2022).

An upsurge in protests following the fraudulent December 2011 parliamentary elections generated interest among the non-systemic opposition in using municipal office as a springboard to national office. Given the its concentration of opposition activity, Moscow quickly emerged as a target. At the top of its municipal government is an elected mayor, whose administration dominates policymaking in the city. Below the mayor sit 12 administrative okrugs, whose heads are appointed and dismissed by the mayor. At the lowest rung of the ladder are 125 municipalities (rayoni) in the city of Moscow, which include both a head (glava upravy) and a council of between 10 and 15 deputies elected from multi-member majoritarian districts (Wienen and Dickson, 2019).[2]

[2] Moscow technically has 146 municipalities, following the addition of 21 mostly rural districts in 2012. Since these new units are on a different electoral cycle, this paper focuses on the core 125

Councils are responsible for approving municipal budgets, and convene public hearings to get citizen feedback on spending. Budgets cover the municipal administration, cultural initiatives, and small-scale social transfers, such as pensions for retired employees (Szakonyi, 2021). Deputies also oversee the approval process for construction projects (such as repairing apartment blocks) and beautification plans (such as improving outdoor spaces and lighting) (Wienen and Dickson, 2019; Gorokhovskaia, 2018). Revenue to pay for these programs comes from land and personal property taxes, tax-sharing agreements with the regional government, and transfers (De Silva, Kurlyandskaya, and Andreeva, 2009). Though deputy work places significant demands on a person's time, most council members receive only nominal monthly compensation (approximately the minimum wage).[3]

Why then would the opposition target this relatively powerless municipal institution? One of the key concessions made by the regime in response to the 2011-2012 protests was to reintroduce gubernatorial elections, including those for the Moscow mayor. But concerned about opposition challenges, the regime also imposed a "municipal filter", whereby candidates have to earn the signatures of deputies from at least 75% of municipal councils in order to register. Overnight municipal deputies became gatekeepers to the mayoral ballot. But municipal elections also allowed the opposition to demonstrate to voters it could handle governing. Many opposed to the Putin regime have been banned from holding elected offices, and consequently vulnerable to critiques that they had fallen out of touch with voters. The opposition understood that opportunities to win elections were available only at the municipal level, where the positions were not seen as important and carried limited policy-setting capacity.[4]

In the run-up to the 2017 Moscow municipal elections, a new "Political Uber" electoral strategy was launched by Dmitry Gudkov, a former Duma deputy aiming to run in for Moscow Mayor, and Maksim Katz, Gudkov's former chief of staff. Running under the alliance United Democrats,

municipalities.

[3] Deputies can grant themselves small bonuses, which vary by council; council heads receive a regular salary.

[4] In that regard, municipal councils sit at an interesting node within the broader power vertical present in Russia: low enough to escape much attention from top elites, but not completely powerless so as to prevent officeholders from exerting any policy influence.

this initiative tapped modern Western campaign know-how to catapult the opposition into electoral victories. Gorokhovskaia (2019) documents how the movement built a powerful electoral machine. First, the United Democrats paid special attention to candidate recruitment, selecting based on their commitment to radical reform (rather than party affiliation). Once selected, candidates were trained how to communicate with voters and navigate Russia's arcane registration process. Finally, coordinated infrastructure helped candidates fundraise, distribute campaign materials, exploit digital technologies and learn about urban management (Gorokhovskaia, 2019). Candidates focused their campaigns on resolving local issues, such as improving infrastructure and access to basic services, as well as making government spending more efficient and transparent.[5]

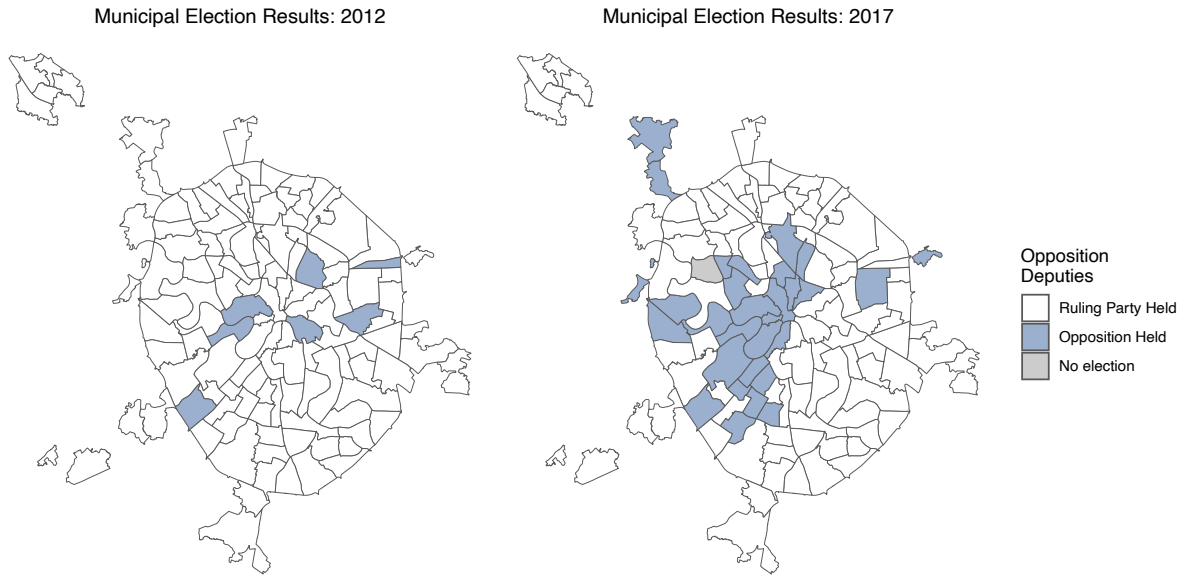
The end result marked a "small electoral revolution" (Gorokhovskaia, 2018) that caught the regime by surprise. United Democrats candidates won 267 out of the 1,502 seats available (18%). Collectively, candidates from outside the ruling party United Russia (UR) won 349 seats (23%). This gave them control over half or more of the seats on 29 of the 124 councils. Not a single UR candidate won a seat on eight councils, including in President Putin's home district of Gagarinsky (Ross, 2018). Figure 1 shows the sea change in opposition control, with victories concentrated in the center and west of the city. As impressive as these results were, the opposition did not win enough seats to overcome the municipal filter and allow Gudkov to run for mayor in 2018 (Golosov, 2018).

Right from the outset, expectations were low that an opposition presence on these councils would amount to any real change. First, the regime was surprised and affronted by the opposition's success. Having lost re-election, some former council chairs from United Russia took their time exiting their posts and interfered with the work of the newly elected deputies (Gorokhovskaia, 2018). Other times, losing UR candidates formed "shadow councils" that attempted to usurp power from their successors.[6] Sticks were also used, as phony criminal charges

[5] Interview with municipal deputy, July 2024. Gudkov also used his popular Facebook page to motivate voters by highlighting misuse of budget funds, self-dealing and corruption among municipal officials. See: https://www.facebook.com/100000943480007/videos/1634704133237687/

[6] Vasil'chuk, Tat'yana. "Sergey Yur'yevich reshil, chto my uzhe vse raspilili" *Novaya Gazeta*, May 10, 2019.

FIGURE 1: RUSSIAN OPPOSITIONS'S ELECTORAL VICTORIES IN MOSCOW



Note: These maps show the percentage of council seats in each municipality held by the members of the opposition. Panel A shows the March 2012 election results; Panel B shows the September 2017 election results. One municipality (Shukino) held elections in 2012, and then again in 2016 (rather than 2017).

were filed against nine deputies from the opposition; several either served jail time or emigrated as a result.[7] Most opposition deputies were also newcomers to this upstart, diverse coalition of reformers.[8] That inexperience combined with the limited scope of powers enjoyed by the councils led to restrained optimism about any policies actually changing.

4 Research Design

To evaluate the opposition's time in office, I collected data on all 125 municipalities located within the city of Moscow. I focus on municipal politics in Moscow for several reasons. First, Moscow is the largest urban agglomeration in Russia, contributing upwards of 15% of its GDP (Kosareva and Polidi, 2017). Moscow municipalities are both socially and economically heterogeneous, but operate according to the same set of institutional rules (for example, those governing the separa-

[7] "Please take me back to 2017. How Moscow pressures independent municipal deputies" *OVD-Info*, November 11, 2022

[8] Davydov, Ivan. "Oops! How Moscow's Municipal Election Turned into a Headache for City Hall." *openDemocracy*, September 20, 2017.

tion of powers) (Bederson, 2021). Finally, per Norton (2022), Moscow is "an ideal case study of the difficulty of urban co-optation" that many authoritarian regimes face. Its large, rapidly growing, and dense population can make governance difficult, while offering a unique opportunity for the opposition to use the fraction of municipal offices they won as a springboard upwards.

4.1 Electoral Data

Data on all 8,327 candidates to Moscow municipal councils in the 2017 elections come from the Russian Central Election Commission, which contains affidavits and vote results.[9] For the 1,502 deputies that won election in 2017, I coded whether they were a member of the opposition if they ran on the United Democrats platform (267 deputies, or 17.8%), were otherwise members of a systemic or non-systemic opposition party (44 deputies, or 2.9%), or ran as an independent (38 deputies, 2.5%). In other words, a candidate was coded as part of the opposition if they did not explicitly run with the ruling party United Russia.

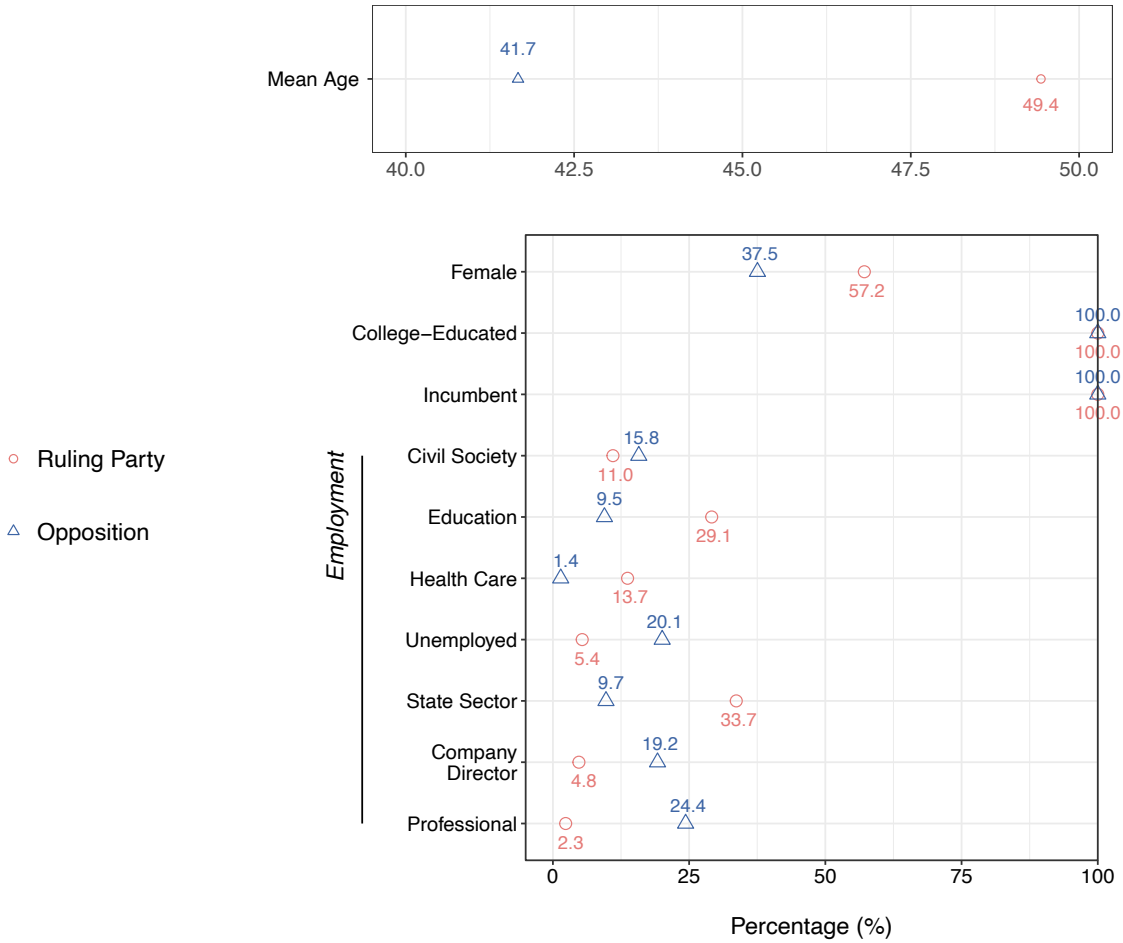
I use a binary distinction for whether deputies were members of the ruling party because the lines between the systemic and non-systemic opposition do not map cleanly onto the United Democrats platform. Of the 267 deputies from the coalition, 26 were drawn from the systemic opposition and 70 ran as independents. Of the 82 opposition deputies that were not part of the United Democrats coalition, another 5 came from non-systemic parties. Independent media following municipal politics labelled deputies according to whether they were member of the ruling party or not, and journalists referred to the 29 councils where United Russia was not in the majority as independent, democratic, and held by the opposition.[10] In Section 5.4, I examine heterogeneity based on the different types of party affiliation.

I also coded candidates' age, gender, and sector of employment as listed in their registration. Figure 2 provides summary statistics about how the opposition differed from United Russia. Opposition deputies were younger, more often male, and more likely to be employed in the private sector, either as a company director or a white-collar professional, while also more often out of work.

[9] I collected the same data for all candidates to the 2012 elections.

[10] Talanova, Darya. "Dazhe satanu podklyuchili" *Novaya Gazeta*, January 12, 2022.

FIGURE 2: DEPUTY CHARACTERISTICS BY POLITICAL AFFILIATION



Note: This figure shows summary statistics comparing the demographics of opposition deputies versus those from the ruling party United Russia. All figures in the lower panel denote the percentage of all members of the group with the designated characteristic.

4.2 Income and Asset Disclosures

To measure corruption at the municipal level, I exploit one of former President Dmitry Medvedev's first acts after assuming office in 2008: a requirement that officials file annual financial disclosures detailing income and assets for themselves and their immediate family. By 2015, nearly all elected and appointed officials at the municipal, regional and federal levels were required to submit disclosures by April 1 about their previous year's finances. Although the information collected is

extensive,[11] only a portion of *every* form was made available to the public online.[12] Thousands of officials who failed to file forms or submitted incorrect information have been removed from office or criminal prosecuted (General, 2018).

Since 2011, Transparency International - Russia (TI-R) has gathered the disclosures of hundreds of thousands of officials into an online database.[13] Using automated and manual efforts, I retrieved all available disclosure forms for Moscow municipal deputies from 2015 to 2021.[14] Disclosures contain information on annual income, real estate (type, size, and ownership, but not address), and the make and models of all cars for each deputy, his or her spouse and dependent children. Deputies serving in the 2012 or the 2017 convocations of municipal councils filed disclosures in 9,102 of the possible 11,418 years that they were required to do so, a compliance rate of roughly 79.7%; deputies that served in both convocations (the main analysis sample, as described below) comply at a higher rate of 91%.[15] Appendix Table A5 shows that opposition control over councils did not have any effect on compliance with disclosure rules.

I first capture corruption by looking at the officially reported incomes of deputies and their spouses, each logged; this total reflects both legal work and illegal rent-seeking. Deputies come from a range of professional backgrounds, only some of which may see benefits from elected office. For example, a deputy's company may contract consulting services to the municipality, a clear conflict of interest that does not always merit criminal investigation. On average, deputies earned roughly 2.7 million rubles per year (or roughly $54,000); their spouses, when employed, earned 1.1 million rubles (or $21,000) per year.[16]

[11] The complete forms included information on income, expenditures, bank accounts, company shares, properties, liabilities and transportation.

[12] Example forms in English and Russian can be found in Appendix Section B.

[13] The data can be found at `http://www.declarator.org`.

[14] 2015 was the first year that these deputies were required to submit; the government stopped publishing declarations in 2022.

[15] These numbers also understate true compliance since they include in the denominator some deputies that had left office but are impossible to track. One municipality (Tverskoye) did not share any disclosures before 2017.

[16] All exchanges rates are calculated at 50 rubles to the US dollar. Because some deputies may earn money from real estate, I control for the number of such assets.

However, deputies engaged in corruption may strategically hide what they make in office from appearing in their disclosures, perhaps afraid that opposition councils may scrutinize them. To measure hidden assets and earnings, I create two indicators based on discrepancies in their disclosures. First, I use a new database of Russian auto insurers to identify any luxury cars that deputies owned or drove while in office but that did not appear in their disclosures; 33 deputies (2.2%) failed to disclose luxury cars and were coded as having 'hidden assets'. Second, I estimate the value of the cars that did appear on deputies' disclosures using listings from Russia's largest online car marketplace `auto.ru`. I then divide the total value of cars reported each year by the total family income to create a continuous measure of hidden earnings. Investigative journalists and academics have used this ratio (i.e. officials driving cars they shouldn't be able to afford) as a indicator of malfeasance (Braguinsky, 2009; Braguinsky and Mityakov, 2015).[17] Both measures are described in more detail in the Appendix.

I combine the two indicators to create a time-varying index of corruption based on whether a deputy has any undisclosed luxury cars or had a hidden earnings ratio of above 1, meaning the value of the cars they drove exceeded their earnings for that year. Overall, 132 deputies (8.7%) had at least some hidden assets or earnings. This aggregation approach follows work by Szakonyi (2024) that combines the binary dimension of having hidden assets with the continuous measure of the hidden earnings. As a robustness check, I analyze the continuous measure of corruption that divides the total valuation of all disclosed and undisclosed cars each year by total family income. Summary statistics can be found in Appendix Table A1.

Together the two measures capture hidden income and assets held by deputies domestically as well as a vulnerability to corruption investigations. Not only are disclosures used by law enforcement authorities to prosecute ill-gotten gains, they are also publicly available for journalists and activists to scrutinize. Deputies with such red flags are not only abusing their office for personal gain, but are doing so in a manner that is easier to detect. Neither measure can capture, however, the presence of offshore assets or other complex laundering schemes. Therefore, following other work, we should interpret these indicators as capturing whether the change in opposition control affects the degree of more easily detectable corruption (Szakonyi, 2024).

[17] Meduza 'He could afford these Bentleys only if he starved himself for six years'. March 8, 2018.

4.3 Identification Strategy

My primary approach for identifying the effect of opposition control on governance outcomes uses a difference-in-differences (DiD) design. First, I code the 29 municipal councils where the opposition won 50% or more of the seats in the 2017 elections as the treatment group ('Opposition-Held Council'), with the remaining 95 entering the control group.[18] The treatment is activated following the opposition taking their seats in late 2017 and staying in power until the next elections in September 2022; I interact the treatment above with an indicator 'Post-2017' designating the years 2018-2022.[19]

To use the DiD design with the disclosures data (which are measured at the individual-year level), I first limit the sample to only those deputies that served in both the 2012 and 2017 convocations, who by and large are affiliated with the ruling party.[20] The reason is to limit selection bias. Council compositions changed dramatically following the 2017 election. Because demographic characteristics may be correlated with both income and corruption, individual-level fixed effects are needed to absorb these attributes and enable a controlled comparison of income earned by the same individuals under different institutional settings.[21] Based on this two-period design, I estimate the following equation:

[18] In four municipalities, opposition candidates won exactly 50% of the seats. I code these as part of the treatment, in line with news articles distinguishing the 29 total councils as opposition-held. I drop the municipality Shukino from the analysis since it followed a different electoral calendar.

[19] Since candidate-elects did not enter office until late September, I use 2018 as the first full year that the opposition held power.

[20] Appendix Table A4 analyzes the determinants of re-election for deputies. Candidates from the ruling party who are wealthier and less corrupt are more likely to win re-election. For members of the systemic and non-systemic opposition, there are no clear correlates.

[21] To ensure a more balanced panel, I require all deputies in the sample to have submitted declarations in all three pre-treatment years, have submitted at least five annual declarations while in office from 2012-2021, and be elected to the same council. These restrictions focus the analysis on deputies for whom we have consistent income data.

$$Y_{dt} = \alpha + \beta * \textit{Treatment}_m + \gamma * \textit{Post-2017}_t + \eta * \textit{Treatment}_m * \textit{Post-2017}_t + \zeta_{dt} * X + \zeta_{mt} * Y + \theta_d + \theta_t + \epsilon_{dt} \quad (1)$$

where Y is a vector of the disclosures-related outcomes for deputy d and time t. *Treatment* indexes municipalities that saw an opposition control a majority of seats following the 2017 election, *Post-2017* is a dummy for the period following the 2017 election, and the interaction between the two generates the coefficient of interest. All models include deputy fixed effects (θ_d), year fixed effects (θ_t), and time-varying covariates at the deputy level (X: vote percentage, head of council status, marital status, logged total number of assets, and number of children) and municipality level (Y: population (log), council size, and an indicator for whether the council was controlled by the opposition in 2012).[22] All models use OLS and cluster errors on the deputy level.

To assess identification, I construct parallel trends for each of the outcome variables analyzed. Using both data at the deputy and municipality levels (see Sections 5.1 and 5.2 below), Figures 3, 4 and 5 show that in the pre-treatment period, municipalities controlled by the opposition after 2017 followed very similar trajectories as those that were held by the regime following those elections. In most cases, the pre-treatment differences between the two groups are not statistically different from one another, and when they are, the trends run neatly in parallel.[23] These tests suggest the absence of pre-trends that might imperil the use of a difference-in-differences design.

As long as parallel trends hold, selection into treatment need not undermine identification. Still, Appendix A3 shows results from regressing opposition seat share (%) on a battery of predictors at the municipal level. The only significant predictors are the size of the council (larger councils see fewer opposition deputies) and the number of candidates running. Importantly predictors

[22] This equation defines the treatment as just being controlled by the "United Democrats", drawing a distinction from the seven municipalities that were controlled by non-UR deputies from 2012-2017. I show in Table A6 that the results are robust to dropping these seven municipalities.

[23] One potential exception concerns the trends for Figure 4. In Appendix Section G, I show that this potential trend violation recedes once important predictors of auction usage are controlled for.

such as population, expenditures,average disclosed income, and the percentage of incumbents running for re-election are not correlated with opposition success.

5 Empirical Results

How does opposition control over municipal institutions affect the rents from holding elected office? Table 1 analyzes reported income earned by deputies that served in councils held by the regime and the opposition in the pre and post-2017 periods. Under this DiD design, the key coefficient of interest is the interaction between an indicator for whether the deputy served on a council held by the opposition and another indicating whether the opposition was in power in a given year. Both constituent terms from this interaction are absorbed by the individual and year fixed effects.

Column 1 includes all 359 deputies that served in both convocations, irrespective of party affiliation, finding a slightly negative but noisily estimated effect of opposition control on earnings. However, when the sample is subset to only deputies affiliated with the ruling party in Column 2, we observe a 22% drop in deputy income in the post-2017 (post-treatment) period. In other words, ruling party deputies that won re-election into a council taken over by the opposition earned substantially less money in office compared to their previous convocation in office; in real terms, this amounts to a decrease of roughly $10,000 per year (500,000 rubles, or approximately the median annual income in Moscow in 2019). Sharing power with the opposition reduces the returns to elected office for the ruling party.

The left panel of Figure 3 provides a graphical representation of these results from Column 2, Table 1; in other words, it subsets the analysis to only ruling party deputies were we observe the largest impact from opposition control. The x-axis indexes years, with the gray shaded area on the right indicating the period following the pivotal 2017 elections. The blue line plots the average annual income for regime-affiliated deputies serving in the 29 councils that would ultimately come under control of the opposition after 2017; the red line plots the same outcome in those that always stayed in the hands of the regime, pre and post the 2017 elections. We see that incomes across the treatment and control groups grow in parallel up until the 2018 turnover in power to the opposition. From 2018 onwards, ruling party deputies in opposition-held councils saw their

income growing much more slowly than their counterparts in councils where the ruling party held a majority of seats.

Importantly, opposition members did not grow richer when they held a majority of seats on the councils. For the small number that kept their seats, there is basically no change in their reported deputy earnings (Column 3). Interviews with municipal council deputies suggested that they were fearful of the intense microscope applied to their activities in office by the regime and state-owned media.[24] Concerned about any personal enrichment being used to undermine their newly acquired power, deputies may have walked a straighter line while in office.

Table A6 shows a series of robustness checks to probe these results further. First, the results are robust to excluding all control variables. Next, I create several different measures of opposition control beyond just majoritarian control: indicators for the oppositions holding at least one-quarter, one half, or three-quarters of seats on the council, as well as a continuous measure of opposition control ranging from 0 to 100. In all cases, greater opposition presence after the 2017 elections is associated with decreased reported incomes among deputies. However, the results in Column 7 also show no change in ruling party deputy income when only the opposition holds a minority of seats on a council. Finally, I show the results are robust to excluding the seven districts that had opposition majorities in the 2012 period.

Next in Table 1, Columns 4-6, we see no effect of opposition control of councils on spousal income. However, the smaller sample size (not all deputies are married to spouses in the workforce) makes precise estimation difficult . Table 2 shows the same specifications but this time analyzing the two corruption measures. We see no real change in the incidence of hidden assets based on whether the opposition held control over a council. Similarly, there is no effect of the opposition taking control on corruption when a continuous ratio of all car values (disclosed and hidden) to total family earnings is analyzed in Columns 4-6. However, the coefficients are all negative suggesting perhaps that this time of corruption might be curbed.

In sum, we see strong evidence that opposition control affects the amount of official income that ruling party deputies earned during their time in power. Interestingly, this effect is only present for the deputies' reported income, and not that for their spouses or their hidden income

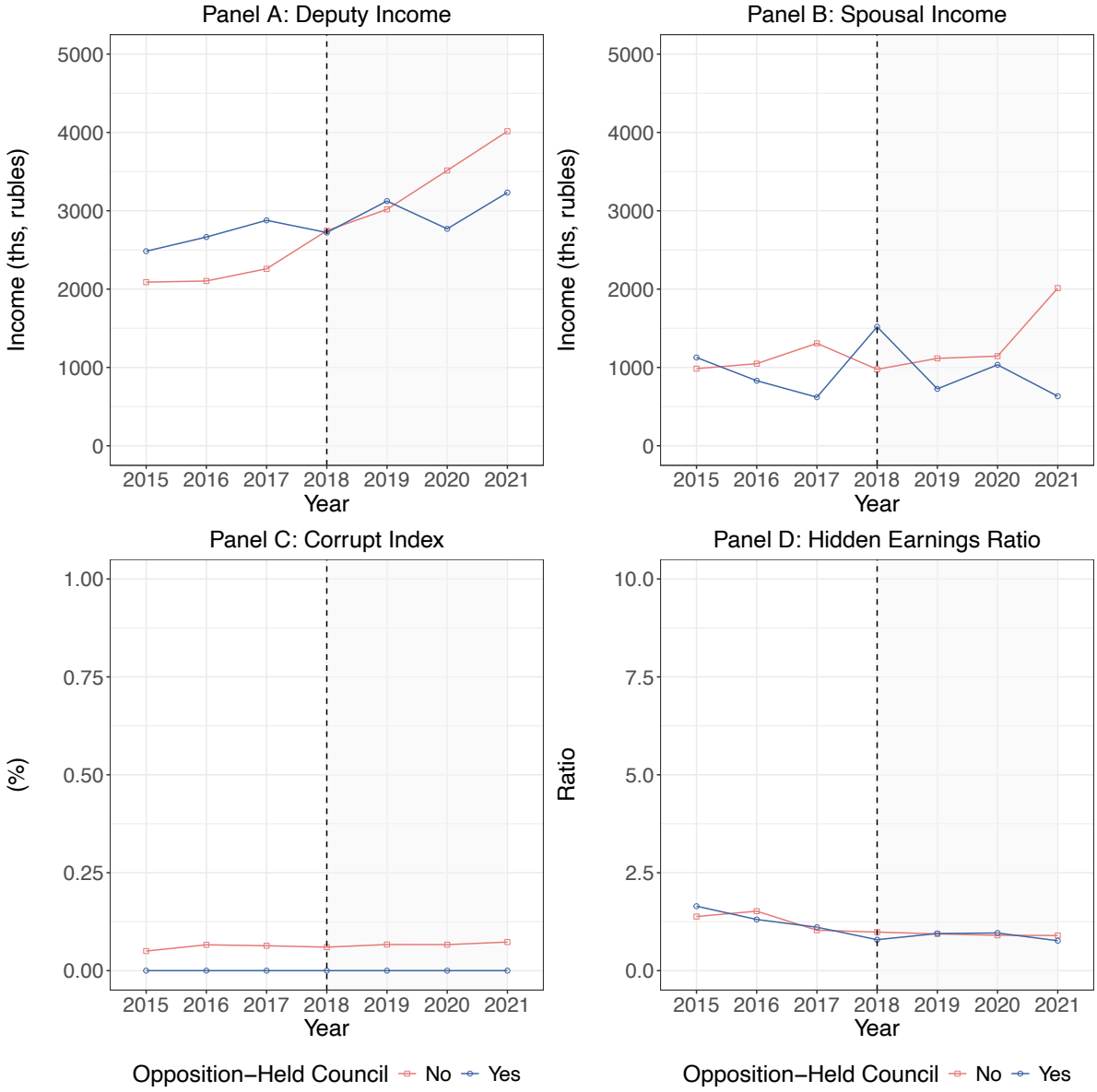
[24] Interview with former municipal deputy, July 2024.

TABLE 1: OPPOSITION CONTROL AND REPORTED INCOME IN OFFICE

	Deputy Income (log)			Spouse Income (log)		
	(1)	(2)	(3)	(4)	(5)	(6)
Opposition-Held Council × Post-2017	-0.171*	-0.218***	-0.052	0.140	0.048	0.003
	(0.087)	(0.078)	(0.168)	(0.284)	(0.264)	(0.528)
Municipal Population (log)	1.07	0.903	0.595	2.21**	2.52**	-7.21
	(0.789)	(0.800)	(2.66)	(1.05)	(1.06)	(8.48)
Num. Council Members (log)	-0.282	-0.066	-2.42**	-0.688	-0.973	0.639
	(0.227)	(0.232)	(1.05)	(0.662)	(0.676)	(2.74)
Vote Percentage	-0.193	-0.066	-0.607	0.581	0.455	2.92
	(0.213)	(0.211)	(0.829)	(0.847)	(0.925)	(2.56)
Council Head	0.334**	0.203	1.75***	0.200	0.409	-0.088
	(0.154)	(0.138)	(0.319)	(0.309)	(0.296)	(0.574)
Total Assets (ihs)	0.086*	0.082*	0.065	-0.147	-0.101	-0.488
	(0.047)	(0.049)	(0.136)	(0.119)	(0.131)	(0.289)
Married	-0.046	-0.095	0.357			
	(0.068)	(0.060)	(0.260)			
Num. Children	0.129*	0.080	0.277	-0.050	-0.135	-0.168
	(0.072)	(0.074)	(0.198)	(0.187)	(0.198)	(0.442)
Opp. Majority in 2012	-0.223	-0.178	-0.335	0.393	-0.143	1.47*
	(0.166)	(0.174)	(0.279)	(0.360)	(0.335)	(0.774)
R^2	0.757	0.759	0.687	0.637	0.653	0.596
Observations	2,452	2,137	315	1,389	1,199	190
Subset	All	Ruling Party	Opposition	All	Ruling Party	Opposition
Deputy fixed effects	✓	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes annual deputy income, logged (Columns 1-3) and spousal income, logged (Columns 4-6). The unit of analysis is the deputy-year. Columns alternate between the full analysis sample and subsets based on ruling party or opposition affiliation. Standard errors are clustered on the deputy level.

FIGURE 3: DEPUTY INCOME BY PERIOD AND OPPOSITION CONTROL



Note: This figure plots the average income for ruling party deputies (left panel) and their spouses (right panel) serving in councils that were controlled by the opposition after 2017 (in blue) and those that were always controlled by the regime (in red). The dotted line indicates the beginning of the post-2017 period when the opposition took control over the municipalities included in the treatment group. One million rubles is $20,000 at an exchange rate of 50 rubles to the dollar.

and earnings. The absence of effects from the analysis of hidden assets reveals that ruling party deputies are also not deliberately lowering their reported income to avoid being audited by the opposition; if they were, their ratio of income to cars would increase during their time in power.

TABLE 2: OPPOSITION CONTROL AND HIDDEN EARNINGS IN OFFICE

	Corrupt Index (binary)			Hidden Earnings Ratio		
	(1)	(2)	(3)	(4)	(5)	(6)
Opposition-Held Council × Post-2017	0.009	-0.006	0.034	-0.372	-0.219	-0.248
	(0.016)	(0.007)	(0.048)	(0.288)	(0.251)	(1.01)
Municipal Population (log)	0.056	0.073	-0.960	-0.011	0.205	-4.15
	(0.052)	(0.051)	(0.590)	(0.645)	(0.577)	(15.1)
Num. Council Members (log)	-0.108	-0.126*	0.208	-0.058	-0.211	3.47
	(0.068)	(0.067)	(0.279)	(0.538)	(0.534)	(3.50)
Vote Percentage	-0.008	-0.009	-0.033	-0.152	-0.442	1.21
	(0.045)	(0.049)	(0.094)	(0.664)	(0.667)	(2.91)
Council Head	0.003	0.005	0.062*	-1.19***	-1.17**	-1.39**
	(0.007)	(0.008)	(0.035)	(0.454)	(0.512)	(0.579)
Total Assets (ihs)	-0.013	-0.016	-0.005	-0.085	-0.068	-0.178
	(0.013)	(0.010)	(0.059)	(0.093)	(0.101)	(0.306)
Married	0.0005	-0.015	0.089	-0.283	-0.175	-1.43
	(0.022)	(0.021)	(0.084)	(0.363)	(0.350)	(1.70)
Num. Children	4.64×10^{-5}	-0.010	0.033	0.086	0.189	-0.079
	(0.014)	(0.013)	(0.036)	(0.220)	(0.256)	(0.548)
Opp. Majority in 2012	-0.043	-0.008	-0.063	0.279	0.337	0.234
	(0.030)	(0.010)	(0.066)	(0.342)	(0.431)	(0.769)
R^2	0.816	0.831	0.764	0.629	0.639	0.599
Observations	2,452	2,137	315	1,523	1,316	207
Subset	All	Ruling Party	Opposition	All	Ruling Party	Opposition
Deputy fixed effects	✓	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes the two hidden earnings measures. The unit of analysis is the deputy-year. Columns alternate between the full analysis sample and subsets based on ruling party or opposition affiliation. Columns 1-3 analyze all deputies that submitted disclosures, while Columns 4-6 only analyze deputies that disclosed cars. Standard errors are clustered on the deputy level.

5.1 Control over Procurement

First, why does power-sharing with the opposition limit opportunities for rent-seeking? Though limited in their responsibilities, municipal deputies do have oversight powers over several areas of policymaking. For example, deputies monitor the implementation of capital investments and public procurement, two of the most significant founts for corruption in Russia. Recent estimates suggest that roughly 6.2% of GDP is lost to kickbacks around state contracts (Barsukova, 2019; Mironov and Zhuravskaya, 2016).[25]

To test whether opposition control over councils affects this rent-seeking channel, I collected data on procurement from the public portal ClearSpending.[26] Using tax identification numbers, I collected all contracts signed by municipalities from 2012-2021.[27] Over this period, the 124 municipalities signed 11,297 procurement contracts totaling 6.7 billion rubles ($134 million). Appendix Table A2 shows that most spending went towards sports, entertainment and other types of recreation, but that councils also spend on infrastructure and IT.

Even with this limited purse, municipal governments have experienced their fair share of corruption scandals (Detkova, Podkolzina, and Tkachenko, 2018). Officials manipulate procurement by buying goods through a single-bidder system where only the preferred supplier allowed to participate. A portion of the marked up contract price then flows back to officials as a kickback. The use of open, electronic auctions is believed to be the best deterrent for this type of collusion. But government officials are not required to use this less corrupt auction mechanism.

I first create a measure of the percentage of all contracts (both by number and by volume) that each municipality procured using electronic auctions. In almost 45% of municipality-years, electronic auctions were never used, a clear indicator that procurement was not being opened up to all bidders in a transparent, competitive fashion. Yet some municipalities still used auctions regularly; in 5% of municipality-years, electronic auctions were used to procure over three-fourths of all goods and services.

[25] The Moscow Times. "Public Procurement Kickbacks Total One-Third of Russia's Budget Revenue – Survey.", May 26, 2023.

[26] Located at `https://clearspending.ru/`.

[27] The analysis ends in 2021, due to the Russian government's efforts to classify data beginning in 2022.

Next, I calculate the percentage of contracts (both by number and volume) flagged as having potential for corruption or collusion. ClearSpending.Ru has developed an automated system that assigns up to eight red flags indicating possible manipulation, wasteful spending, or limited competition. For example, one red flag identified contracts concluded too quickly to allow sufficient participation, while another flags contracts signed with a supplier labelled as "dishonest" by the Federal Anti-Monopoly Service. Overall, 22% of municipal contracts in the analysis data contained at least one red flag, the vast majority for containing inaccurate or incomplete information about the item being procured.

Table 3 applies the DiD approach at the municipal-year level. We see first in Columns 1 and 2 that opposition-held councils in the post-2017 period saw a significantly higher percentage of goods and services being procured using electronic auctions. Roughly 10% more contracts (totaling almost 13% of state expenditures) were signed using auctions when the opposition was in power. Although the sums were small, these results shows that oppositions change the ways councils do business with suppliers. In Columns 3 and 4, I examine the likelihood of contracts signed by municipalities being red-flagged as vulnerable to corruption. The sign on the interaction effects are negative but imprecisely estimated. The magnitudes are large, suggesting that with greater statistical power, we might see better evidence that opposition control lead to fewer procurement anomalies.

These effects are also seen clearly in Figure 4. Up until 2018, treated and control councils followed a very similar trajectory. But following the opposition's ascendance in 2018, there is a sharp divergence in the use of electronic auctions between opposition-held and regime-controlled councils (Panels A and B). The evidence regarding anomalies is less clear-cut and perhaps affected by the change in procurement caused by the pandemic in 2020. Taken together, these plots reveal strong evidence that procurement patterns changed quickly after the opposition took control over councils in 2017.

5.2 Control over Budgets

Procurement data capture only a small share of total municipal spending (e.g. goods or services bought from external suppliers), while missing other items such as salaries and infrastructure

TABLE 3: OPPOSITION OVERSIGHT OVER PROCUREMENT

	Auction Held		Anomaly Found	
	% of Contracts, Num.	% of Contracts, Vol.	% of Contracts, Num.	% of Contracts, Vol.
	(1)	(2)	(3)	(4)
Opposition-Held Council × Post-2017	0.105***	0.122***	-0.051	-0.033
	(0.034)	(0.039)	(0.060)	(0.061)
Municipal Population (log)	-0.069	-0.031	0.084	0.242**
	(0.075)	(0.070)	(0.097)	(0.094)
Num. Council Members	-0.005	-0.005	-0.020	-0.020
	(0.014)	(0.013)	(0.016)	(0.016)
Contract Num. (log)	-0.032*	0.013	-0.028	-0.032
	(0.019)	(0.019)	(0.026)	(0.028)
Contract Volume (log)	0.044***	-0.003	0.007	0.015
	(0.015)	(0.016)	(0.023)	(0.024)
Expenditures (log)	-0.031	0.013	0.082**	0.053
	(0.035)	(0.034)	(0.040)	(0.047)
Opp. Majority in 2012	0.029	0.037	0.099	0.100
	(0.065)	(0.061)	(0.094)	(0.070)
R^2	0.440	0.413	0.397	0.357
Observations	1,175	1,175	1,175	1,175
Municipality fixed effects	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓

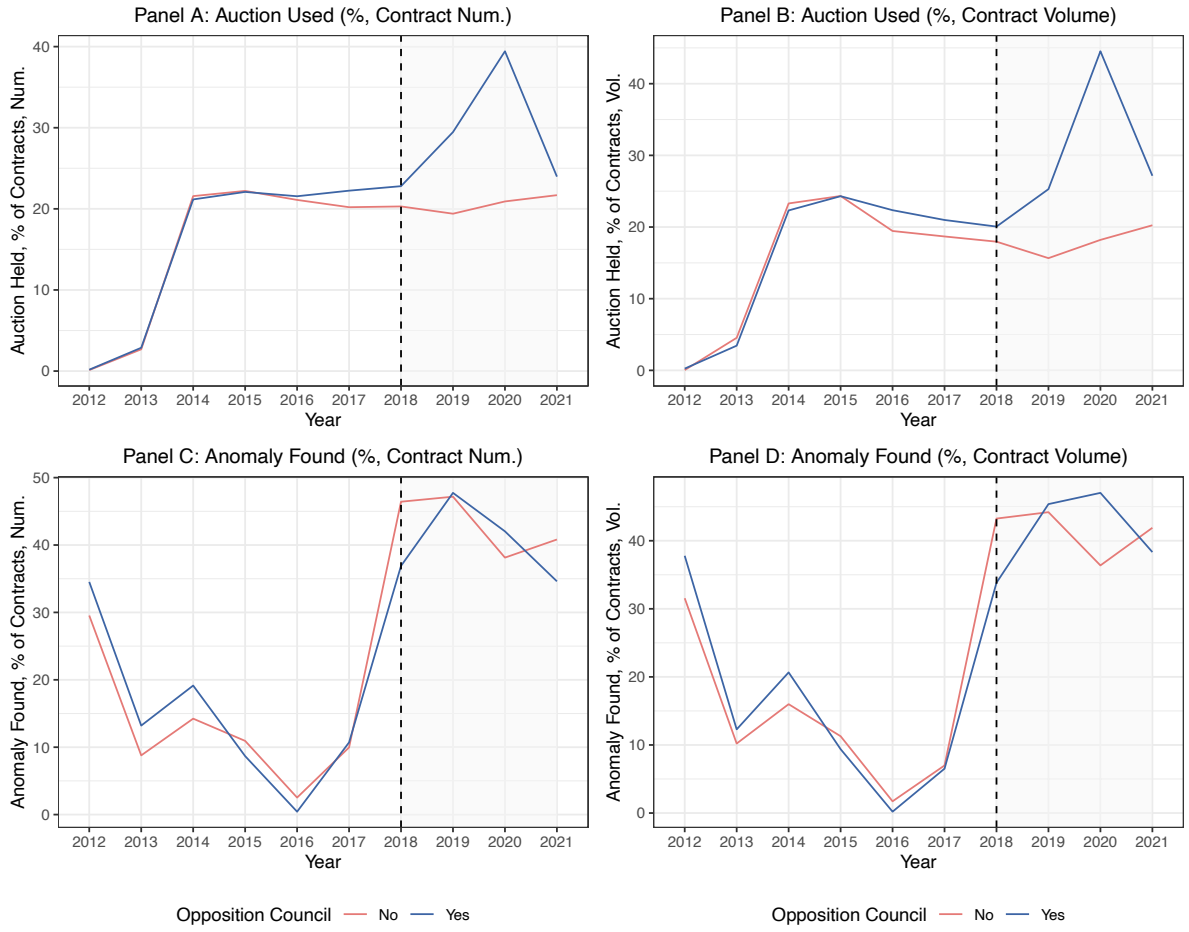
Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes outcomes related to procurement at the municipality-year level. Columns 1 and 2 analyze the percentage of contracts using electronic auctions by number and volume, respectively. Columns 3 and 4 analyze the percentage of contracts where an anomaly was identified in the contract process by number and volume. Standard errors are clustered at the municipality level.

costs. By changing the way that budgets are both allocated, opposition councils may also be able to deprive ruling party deputies of rent-seeking opportunities. On the other hand, budget politics also may be a key tool for the regime to fiscally starve opposition-held councils. Curbing funding could limit the opposition's ability to invest in public-facing projects that could improve their image and attract voters. This section thus also tests whether the regime responds to electoral losses by handcuffing the ability of opposition councils to function effectively.

Data on municipal budgets are collected independently from the procurement contracts and come from the Russian State Statistics Agency for the years 2012-2021.[28] Budgets average roughly $500,000 per council per year. The DiD design is identical to the municipal-level regressions from the previous section. Figure 5 plots the changes over time for four key budget-related outcomes: revenue (Panel A), expenditures (Panel B), deficit (Panel C), and administrative expenses such as municipal salaries (Panel D). Regression results can be found in Appendix Table A7. We see strong

[28] Data for 2021 was collected by hand, with some slight missingness. Data for 2022 have not been released.

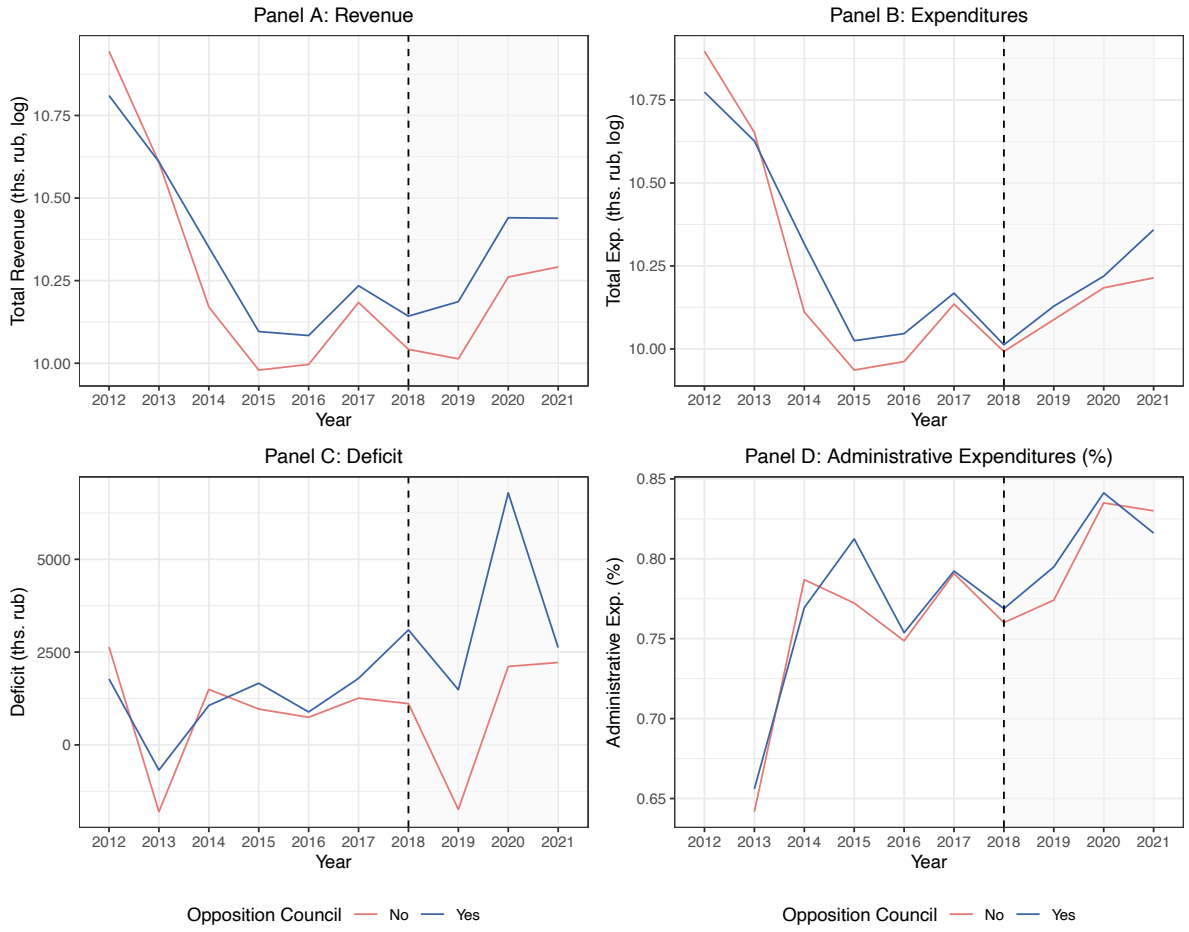
FIGURE 4: CHANGE IN PROCUREMENT OUTCOMES OVER TIME



Note: This figure plots the average of procurement-related outcomes by treatment and control group by year. The dotted line indicates the period following the 2017 election when the opposition took control over the municipalities included in the treatment group.

evidence again of the opposition changing the way municipal institutions are run. Rather than being deprived of resources, opposition-held councils actually see slightly faster growth in revenue while also decreasing expenditures. This increase also does not come from larger transfers from higher-level governments, who might be intervening to shape municipal politics. Opposition-held councils in fact derive the same percentage of revenue from taxes versus transfers. Expenditures in opposition-held councils also decline, creating large surpluses and suggesting that wasteful spending declined in these places. In the next section, I draw on qualitative evidence to show how these efforts unfolded.

FIGURE 5: CHANGE IN BUDGET OUTCOMES OVER TIME



Note: This figure plots the average of budget-related outcomes by treatment and control group by year. Panel D is calculated using annual municipal expenditures in the denominator. The dotted line indicates the period following the 2017 election when the opposition took control over the municipalities included in the treatment group.

5.3 Qualitative Evidence

This section presents qualitative evidence from interviews with former opposition deputies that illustrate how they worked to combat rent-seeking and corruption.[29] First, many deputies spoke

[29] To contact deputies, I first located their email addresses, telegram handles or phone numbers using publicly available information (mainly their websites) or my personal contacts. I then adopted a snowball style approach, asking each deputy after the interview to suggest other deputies also living abroad that might be willing to speak to me. All interviews were conducted over Zoom and I have withheld names to protect their future privacy. Two deputies still living in

at length about the importance of closing down channels of unnecessary spending that lined the pockets of officials. One opposition council head remarked that several deputies uncovered a "suspicious corruption story" where municipal administrations were blatantly overpaying for electricity.[30] Indeed, the budget surpluses enjoyed by opposition councils were likely not due to political paralysis or an inability to pass spending bills, but rather a function of increased monitoring of government expenses.

Often times this type of scrutiny required acquiring investigative skills about the procurement process. Several deputies remarked about learning the art of cost estimates (smeta) and compiling detailed lists about how much goods cost (such as asphalt, cable, etc.) in order to double-check supplier bids.[31] The work at times wasn't glamorous. Pavel Yarilin, a deputy from the Aeroport district, commented that "you have to go to all these stupid commissions, spend a lot of time, use your strength to climb into attics, basements filled with bedbugs and smeared in paint, in general, all the charms of repairs."[32] Council heads had been used to shoveling through their preferred projects and suppliers through uncompetitive contracting procedures; now they had to deal with galvanized opponents checking details and uncovering corrupt schemes.[33]

Other deputies identified redundant or even fictitious projects that were only designed to reward deputies and firms connected to them, such as cancelling a $6 million construction contract that duplicated other work done and stopping state funds from being used to rent a car for officials.[34] In Khamovniki, a firm run by the former municipal head operated the municipality's website at great expense to the taxpayer (and only 37 visits per day).[35] Shortly after taking office, opposition leader and municipal head Ilya Yashin cited an example of 37 million rubles (roughly $740,000) being spent on the renovation on a small square; one of his first priorities in office would

Russia declined to be interviewed because of concerns about violating foreign agent laws.

[30] Interview with municipal council head, July 2024.

[31] Interview with former municipal deputy, July 2024.

[32] Interview with former municipal deputy, July 2024.

[33] Interview with former municipal deputy, July 2024.

[34] Bobrinskiy, Nikolay. "Uspekhi i neudachi nezavisimykh deputatov v Ramenkakh", February 4, 2019.

[35] Karnaukhova, Alekseya, "Otchet deputata Soveta deputatov munitsipal'nogo okruga Khamovniki Alekseya Karnaukhova", Moscow, 2018

be to review the contract and monitor capital investments.[36]

Finally, opposition deputies frequently mentioned taking steps to reduce the inflated compensation that deputies received while in office. In several interviews, deputies noted that they closely followed and tried to block unnecessary budget items, such as large bonuses paid to municipal employees; however, deputies with only a minority on the council were often out-voted and struggled to reign in excess compensation schemes.[37] Yashin also attempted to halt a one-time remuneration ('golden parachute') for retiring municipal employees that would have cost his municipality at least $10,000.[38] Other work involved directly preventing abuse of authority. In one district, a United Russia deputy illegally appropriated basements in a housing block, stole communal electricity, and ran a small cryptocurrency mining operation; opposition deputies helped write letters and bring the case to the attention of the authorities.[39] It seems the presence of opposition deputies on these councils seemed to scare ruling party deputies straight by increasing scrutiny of different types of financial flows and using social media and other platforms to raise the public stakes of embezzlement and self-dealing.

5.4 Systemic versus Non-Systemic Opposition

We might also expect that councils controlled by members of the non-systemic opposition, who both demonstrated an ability to coordinate electoral activities and stronger antipathy towards the regime, to be more successful in curbing rent-seeking than their counterparts from the systemic opposition. In Appendix Table A8, I separately analyze councils where the non-systemic opposition held a majority on its own. Importantly we see that ruling party deputies earned less income in councils controlled both by the non-systemic opposition and those where the systemic opposition is needed for a majority. The difference between councils of different opposition affiliation is

[36] BBC News "Chto smogut sdelat' v Moskve oppozitsionnyye munitsipal'nyye deputaty? Ne tak mnogo" Russia Service, September 11, 2017.

[37] Interview with former municipal deputy, July 2024. Interview with former municipal deputy, July 2014.

[38] Miller, Liza. "Il'ya Yashin khochet lishit' munitsipal'nykh deputatov 'zolotykh parashyutov'." *Kommersant* October 27, 2017.

[39] Interview with former municipal deputy, July 2024. Morozov, Vitaliy. "Byvshiy deputat ≪Edinoy Rossii≫ voroval elektrichestvo dlya mayninga bitkoinov" Coinside.ru, December 25, 2017.

small and not statistically significant.

This suggests that the important driver behind controlling rent-seeking among ruling party deputies is empowering any politicians not affiliated with the party, regardless of whether they coordinate with a centralized body or commit to a non-systemic challenge to power. The systemic opposition may be best understood as a 'swing' group in Russian politics. Although its allegiance to Putin's regime has withstood many critical tests, after winning control of Moscow municipal councils, systemic opposition deputies behaved quite similarly to those from the non-systemic opposition in constraining the regime and ruling party. This suggests a more fluid sense of allegiance: the systemic opposition may be open to co-optation not just from the regime, but also its most vocal challengers.

6 Opposition Governance and Voters

Even if the Moscow opposition was able to curb corruption during its brief time in municipal office, a larger question looms about whether any of its anti-corruption efforts mattered for its future electoral prospects. In other words, does better governance help opposition parties launch off that 'springboard' into higher office (Lucardi, 2016)? Unfortunately for this case, the window of opportunity for moving upward was slammed shut by Russia's all-out invasion of Ukraine in 2022. Putin's regime crushed all dissent against the war, bringing criminal charges against opposition leaders, journalists and activists. This repression escalated during the run-up to the September 2022 Moscow municipal elections, where the regime blocked opposition candidates from running and used fraud to ensure ruling party victory.

This level of repression and breadth of fraud make it very difficult to evaluate, using either survey or electoral data, how constituents retrospectively evaluated the Moscow opposition's time in power. But this specific shock to Russian politics should not negate the fact that oppositions more generally can benefit from their time in office under autocratic regimes. Voters may prefer opposition candidates that show a willingness to work alongside the regime in order to improve society and gain governing experience.

To get a sense of how opposition participation in government affects voter preferences, I placed an original vignette experiment on a nationally representative survey of 2,980 Russians three

months before the Russia's 2022 all-out invasion of Ukraine. The experiment prompted respondents to consider two hypothetical candidates to the Duma running for election the next year. One candidate represented the ruling party United Russia, while the other ran as an independent, not affiliated with any political party with seats in parliament.[40]

The main treatment randomly added information on the political background of the independent candidate. One group of respondents learned that not only had the independent candidate won election as a municipal deputy five years earlier, but since then had worked closely with the regime on governance issues. This "Held Municipal Office" treatment captures the potential for municipal office to act as a springboard into higher office. The second group of respondents received information that the independent candidate had criticized the election system and never run for office before (the "Protested System" treatment). The last group of respondents received no additional information about the independent candidate.[41] Respondents were then given a choice of supporting the United Russia candidate, the independent candidate, or neither.

This experimental design has both strengths and weaknesses. Fielding the survey throughout Russia also helps clarify whether voters around the country, and not just in its large urban centers, value opposition collaboration with the regime. Recent work has shown that 50% of all autocracies included members from the opposition in their cabinets, while 80% of electoral authoritarian regimes saw multiple parties included in their legislatures (Bokobza and Nyrup, 2024; Miller, 2015). The experiment sheds light on voter preferences for opposition participation in authoritarian institutions, using an increasingly repressive political setting.

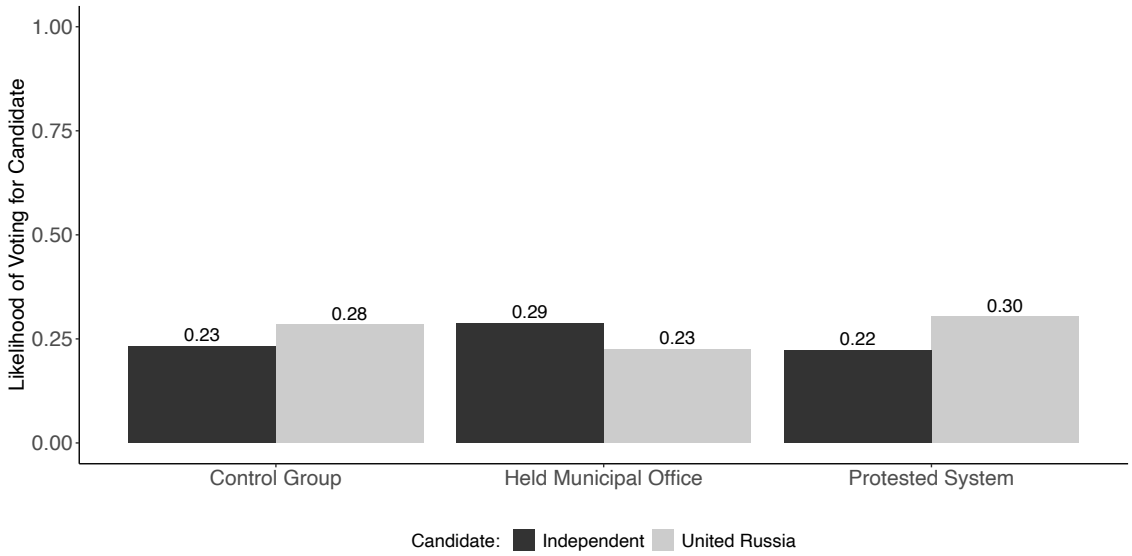
But the survey does not precisely mirror the main research question, which evaluates the governance impact of opposition majorities. First, I opted not to include any information about how candidates performed in office within the experiment, as I was concerned its inclusion would introduce clear bias: respondents would unsurprisingly gravitate to any candidate described as

[40] Question wording and survey details can be found in Appendix Section H.

[41] No additional information was provided about the UR candidate. This choice was made because of the difficulty identifying a symmetric treatment for Treatments #2 and #3, since UR deputies are both part of the regime and unlikely to have criticized the system. An additional treatment varied the economic platform of the candidates, but is collapsed in the analysis.

being successful in combatting corruption.[42] Instead, the focus was on how voters evaluated opposition activists that had occupied any political positions within an authoritarian power vertical. This helps us understand the broader question of whether oppositions are well-served politically by participating in regime institutions, even without explicitly addressing their performance in office. Is it worthwhile to challenge the regime electorally at lower levels (bearing in mind the potential for improving governance)? Or is the opposition better off refraining completely from challenging the ruling party in fraudulent polls?

FIGURE 6: EXPERIMENTAL EVIDENCE ABOUT OPPOSITION GOVERNANCE



Note: This figure plots the means for whether respondents would vote for the UR candidate or the independent candidate for each treatment arm. Respondents in the Control Group received no additional information on the independent candidate, those in the Held Municipal Office treatment learned the independent candidate had won municipal office before and worked with the regime, and those in the Protested System treatment learned the independent candidate had criticized elections and never run before.

Figure 6 plots the means of respondent support for each candidate by treatment. Since respondents were asked to choose between the candidates, the bars show the means of binary indicators for whether the respondent chose that particular candidate (UR or independent).[43] Respondents overall preferred United Russia to independent candidates by roughly 5 percentage points when no additional information is given about either candidate.

[42] The regime also dominates all municipal councils outside of Moscow and St. Petersburg, and voters may not relate to a hypothetical that asks about opposition control.

[43] Analysis of those who chose 'neither' is in Appendix Table A11.

But when respondents are informed that independent candidates had held office prior and worked with the regime, their support flips and independent candidates command a six percentage point lead. Having previously protested the system, however, does not provide any advantage. Appendix Table A11 confirms these effects in regressions that include demographic controls. The effect sizes are large and statistically significant: voters prefer such experienced independent candidates to their UR rivals by roughly 5%. Winning elections at the municipal level can help opposition politicians convince voters of their seriousness for higher office, even if governing required working alongside the regime.

7 Conclusion

This paper analyzes the case of Russia to show that when autocrats share power with the opposition at the subnational level, governance may improve. Importantly, how much the opposition can constrain the regime depends on whether it controls versus just participates in formal institutions. The Russian opposition had less success driving down rent-seeking when it occupied a minority of council seats; holding a majority was critical to execute oversight. Electoral accountability may not be sufficient to improve governance in autocracies. Instead, control over policymaking is necessary to change regime behavior. Experimental evidence shows that voters may reward opposition politicians who pursue elected office, even if it means collaborating with the regime.

That the Russian opposition could achieve any anti-corruption gains in such a difficult and repressive setting, and with limited resources and responsibilities, suggests there could be similar dividends to be had from opposition participation in governments in other settings. Importantly, the success of the opposition's "Political Uber" strategy was not a one-off in Russia. Applied again during the 2019 St. Petersburg municipal elections, this tactic helped the opposition win 40% of council seats, a huge improvement on past contests.[44]

But outside of Russia, there may be two clear scope conditions that affect the ability of other oppositions to achieve similar improvements in governance. First, the electoral authoritarian regime in Russia has relied not on ideology, but rather access to corruption and rent-seeking as the key

[44] Unfortunately the COVID-19 pandemic makes it difficult to undertake the same analysis of corruption and other outcomes.

tools for co-opting elites and maintaining control over society (such as by using access to spoils to organize electoral fraud and take over independent media). This ubiquity of corrupt activities provided opposition activists ample opportunities to challenge the government electorally and upend the rent-seeking structures once in power. Other variants of dominant parties may be more aware of their electoral weaknesses and less dependent on corruption to govern, giving the opposition less room for maneuver both before and after elections.[45] In other words, authoritarian regimes that govern more effectively and transparently may be less vulnerable to opposition parties trying to establish themselves as a credible alternative for governing.

Secondly, even though municipal authority has been decimated by President Putin's centralization efforts, there are still some levers of power available to elected deputies at the local level. As the interviews demonstrate, even with meager budgets, municipal councils in Moscow could still perform their oversight role and disrupt the corrupt schemes used by the ruling party. Although the Kremlin tried to undermine opposition governing efforts, ultimately this paper demonstrates how constrained the regime was in the pre-pandemic period from completely overturning electoral results.[46] Other authoritarian regimes leave no such window open at subnational levels, with federal authorities intervening early and often to undermine the autonomy of such institutions before they become a problem for the ruling party. Therefore, we should expect opposition politicians to have a much stronger impact on governance processes when the institutions they control have at least some teeth, and are not completely under the thumb of regime elites.

[45] In post-war Italy, the Italian Communist Party won a series of victories in "Red Bologna" (Jäggi, Müller, and Schmid, 1977), pursuing a successful political strategy of anti-corruption and organizational efficiency, in contrast to the ruling party Christian Democrats (Forlenza, 2010).

[46] Talanova, Darya. "Dazhe satanu podklyuchili" *Novaya Gazeta*, January 12, 2022.

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Part

Online Appendix

Opposition Rule under Autocracy:

Evidence from Russia

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A Summary Statistics

TABLE A1: SUMMARY STATISTICS - DEPUTY LEVEL

Statistic	N	Mean	St. Dev.	Min	Max
Age	1,502	47.63	11.86	20	82
Female	1,502	0.53	0.50	0	1
College-Educated	1,502	1	0	1	1
Council Head	1,502	0.06	0.24	0	1
Vote Percentage	1,502	0.35	0.07	0.19	0.67
Civil Society	1,502	0.12	0.33	0	1
Education	1,502	0.25	0.43	0	1
Health Care	1,502	0.11	0.31	0	1
Unemployed	1,502	0.09	0.28	0	1
State Sector	1,502	0.28	0.45	0	1
Company Director	1,502	0.08	0.27	0	1
Professional	1,502	0.07	0.26	0	1
Non-Systemic Opposition	1,502	0.23	0.42	0	1
Deputy Income (ths. rub)	1,442	2,979.24	3,602.50	97.11	63,480.97
Spousal Income (ths. rub)	945	1,289.66	2,334.70	0	41,514.67
Num. Real Estate Assets	1,443	3.53	2.46	1	23.67
Married	1,443	0.59	0.46	0	1
Num. Children	1,443	0.14	0.33	0	2.40
Corrupt Index (binary)	1,443	0.07	0.25	0	1
Hidden Earnings Ratio	1,106	1.05	1.37	0.06	11.11

Note: This table presents summary statistics for all deputies serving in the 2017-2022 convocation. Statistics are shown on the deputy level. All income data from the disclosures has been averaged to the deputy-year level.

TABLE A2: PROCUREMENT STATISTICS

Procurement Type	Sum (ths. USD)
Sports-related services and services for organizing entertainment and recreation	42,905.7
Land and pipeline transportation services	10,745.0
Information technology services	6,253.1
Healthcare services	5,629.1
Publishing services	2,560.1
Creative, arts, and entertainment services	2,136.4
Insurance, reinsurance, and private pension services, except mandatory social security	1,950.9
Building and grounds maintenance services	1,911.2
Software products and software development services	1,881.9

Note: This table presents summary statistics for all procurement contracts won across all Moscow municipalities from 2012-2021. All sums are calculated at 50 rubles to the dollar (an average rate for the time period).

B Example Disclosure Forms

FIGURE A1: EXAMPLE FINANCIAL DISCLOSURE, ORIGINAL RUSSIAN

Фамилия и инициалы лица, чьи сведения размещаются	Должность	Объекты недвижимости находящиеся в собственности				Объекты недвижимости находящиеся в пользовании			Транспортные средства (вид, марка)	Декларированный доход (руб)
		Вид объекта	Вид собственности	Площадь (кв.м)	Страна	Вид объекта	Площадь (кв.м)	Страна расположения		
Абрамов Игорь Николаевич	Депутат муниципального округа	Земельный участок	Индивидуальная	207000	Россия	Квартира	53,5	Россия	Легковой автомобиль РЕНО LATITUDE	2049318,96
Супруга		Земельный участок	Индивидуальная	1500	Россия				Легковой автомобиль НИССАН X-Trail	504649,17

Note: This figure gives a original version of one of the public available disclosures for a Moscow municipal deputy in 2018.

FIGURE A2: EXAMPLE FINANCIAL DISCLOSURE, TRANSLATED INTO ENGLISH

Name	Position	Real Estate Owned				Real Estate Leased			Transportation Assets	Income (rubles)
		Type	Ownership	Size (sq. m)	Country	Type	Size (sq. m)	Country		
Abramov Igov Nikolaevich	Deputy	Land parcel	Individual	207000	Russia	Apartment	53,5	Russia	Car RENAULT LATITUDE	2049318,96
Spouse		Land parcel	Individual	1500	Russia				Car NISSAN X-Trail	504649,17

Note: This figure gives a translated version of one of the public available disclosures for a Moscow municipal deputy in 2018.

C Creating Corruption Measures

The main text uses two corruption measures based off of discrepancies in the official disclosures. The first identify so-called 'hidden assets', that is, luxury cars that were not disclosed by municipal deputies on their forms. The database to identify missing cars build off of a leaked list of 129 million 17-digit vehicle identification numbers (VIN) of cars registered in Russia from 2011-2019. These data are collected by the Russian traffic agency GIBDD, with the leak supposedly covering 95% of the government's official database.[47] Several journalists confirmed its coverage by analyzing random samples.[48]

Because the leaked VIN database only had information on car characteristics, I collected additional data from the website of the Russian Union of Auto Insurers, which allows drivers and government agencies to identify the drivers and owners of the car. This database is critical for drivers involved in car accidents to verify the insurance coverage of the other cars by submitting VIN numbers online. The insurance records include information from nearly every insurance company active in Russia, and because car insurance in mandatory in Russia, this dataset covers the vast majority of vehicles driven.[49] For every VIN number, the database provides partially anonymized information about the name of the owner, the person(s) insured to drive it, the insurance provider, policy number, and location of registration (region).[50] I ran individual queries

[47] GIBDD translates to the 'General Administration for Traffic Safety' and is the equivalent to the Department of Motor Vehicles in the US.

[48] Kinyakina, and Yekatyerina Angyelina Kryechyetova "V otkritom dostoopye okazalas' baza dannih rossiyskih avtovladyel'tsyev" *Vedomosti*, May 14, 2020. Lenta.Ru "Bazoo dannih rossiyskih avtovladyel'tsyev vistavili na prodazhoo v darknyetye" *Lenta.ru*, May 15, 2020.

[49] Stepanov, Dmitriy. 'V Rossii zarabotala infosistyema avtostrahovshshikov, pyeryepisannaya za 2 milliarda ≪s noolya≫' *cnews.ru*, June 29, 2020

[50] Owners are partially anonymized in that the only the first name, middle name (patronymic), first letter of the last name, and the full birthdate are given. Matching even without the complete last name data is not introducing significant noise into the corruption measure. This issue should not cause issues for the measurement since individuals (as defined by unique values across these variables) only own on average only 1.43 luxury cars from 2011-2019.

for each VIN using December 31 of each year from 2011-2019 in order to track ownership over time. However, because of the significant costs of administering these queries, the collection was limited to just the 19 brands identified as being luxurious each year by the Russian government.[51] By focusing on luxury rather than economy cars, this approach is better able to identify those officials most engaged in corruption. In all, the database includes owners for 2,742,113 unique VIN numbers. In addition, I used leaked data on 43 million entries of car ownership from 2010-2020 from the Moscow and Moscow Oblast GIBDD as a further check on luxury vehicles missing from disclosures.

The second corruption index is built by scraping all of the used car listings on Russia's largest online marketplace auto.ru during the summer of 2021. I then categorized each car for sale according to its make, model, and year and then assigned a mean 2021 valuation to every car based on those three indicators that appeared in a municipal deputy's disclosures from 2014-2021. Applying the car depreciation formula (a rate of 12%) developed in Braguinsky and Mityakov (2015), I then imputed the value of each car when it appeared. For example, the mean price of a 2012 Honda Civic for sale in 2021 was 827,500 rubles (roughly $12,000 at the time). For a municipal deputy who owned that car in 2015, its value would be set at 1.5 million rubles, or roughly $21,500 at the time. The hidden earnings ratio was calculating by summing the valuation of all cars disclosed in a deputy's (and their family's) annual disclosure and dividing by total family income.

The two corruption measures combine these red flags into a binary index that varies by year depending on whether a luxury car is missing or the hidden earnings ratio for that deputy exceeds one (meaning the deputy drove cars that were more expensive than their annual income). Previous work has validated this combined index and shown it correlates in national samples with corruption ratings of officials' hometowns and individual measures of dishonesty, such as plagiarized dissertations (Szakonyi, 2024). To be sure, this index cannot capture all corrupt earnings since it only uses information on cars as inputs due to the availability of external databases such as the insurance records and sales listings to assign valuations and uncover discrepancies. Unfor-

[51] Identifying the owners data on all makes and models of cars in Russia would cost over $1 million, an impossible sum for social science researchers.

tunately, comprehensive information on domestic real estate holdings in Russia, or for that matter offshore assets, is not available to further verify the contents of the disclosures. Therefore, the corruption indexes are best understood as capturing hidden assets and earnings that are somewhat easily detectable.

D Robustness Checks: Identification

TABLE A3: DETERMINANTS OF OPPOSITION SUCCESS IN 2017 MUNICIPAL ELECTIONS

	Opposition Seats (%)		
	(1)	(2)	(3)
Constant	-0.360	1.10	1.10
	(1.10)	(1.21)	(1.21)
Num. Council Members	-0.008	-0.069***	-0.069***
	(0.011)	(0.014)	(0.014)
Municipal Population (log)	-0.142**	-0.059	-0.059
	(0.065)	(0.066)	(0.066)
Expenditures (log)	0.228*	-0.010	-0.010
	(0.119)	(0.141)	(0.141)
Surplus	0.008	0.013	0.013
	(0.008)	(0.008)	(0.008)
Num. Incumbents Running		0.013***	0.013***
		(0.002)	(0.002)
Average Deputy Income (log)		-0.021	-0.021
		(0.048)	(0.048)
R^2	0.082	0.298	0.298
Observations	124	123	123

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes the predictors of opposition seat share in the 2017 municipal elections. Data on incumbents and previous United Russia seat share comes from the Central Election Commission. One municipality (Tverskoye) did not share any deputy disclosures prior to 2017, and thus drops out of the analysis in Columns 2 and 3. Standard errors are clustered at the municipality level.

TABLE A4: DETERMINANTS OF RE-ELECTION IN 2017 MUNICIPAL ELECTIONS

	Re-elected in 2017			
	(1)	(2)	(3)	(4)
Female	0.085***	0.083***	0.098***	-0.063
	(0.024)	(0.028)	(0.035)	(0.053)
College Educated	0.111***	0.055	0.051	0.042
	(0.039)	(0.042)	(0.060)	(0.045)
Age (log)	-0.089	-0.191***	-0.197**	-0.061
	(0.054)	(0.058)	(0.076)	(0.078)
Employed: Civil Society	0.102**	0.109**	0.115	0.104
	(0.045)	(0.049)	(0.071)	(0.092)
Employed: Education	0.004	-0.056	-0.074	0.003
	(0.042)	(0.045)	(0.070)	(0.063)
Employed: Health Care	0.002	-0.044	-0.062	0.200
	(0.052)	(0.054)	(0.076)	(0.140)
Employed: State Sector	0.115**	0.092*	0.111	0.0009
	(0.047)	(0.050)	(0.078)	(0.062)
Employed: Company Director	0.040	-0.013	-0.008	0.044
	(0.046)	(0.052)	(0.079)	(0.084)
Party: United Russia	0.290***	0.264***		
	(0.037)	(0.045)		
Party: LDPR	0.006	-0.060		0.225*
	(0.106)	(0.114)		(0.135)
Party: Just Russia	0.120**	0.146**		0.122*
	(0.054)	(0.063)		(0.071)
Party: Yabloko	0.079	0.073		0.035
	(0.109)	(0.115)		(0.148)
Deputy Income (log)		0.094***	0.126***	-0.024
		(0.021)	(0.026)	(0.040)
Total Assets (ihs)		0.077***	0.087**	0.079*
		(0.029)	(0.035)	(0.046)
Corrupt Index (binary)		-0.207***	-0.269***	-0.085
		(0.034)	(0.040)	(0.068)
R^2	0.168	0.243	0.258	0.435
Observations	1,306	1,184	921	263
Subset	All	All	Ruling Party	Opposition
OKTMO fixed effects	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes the predictors of re-election in the 2017 municipal elections. Analysis is done at the individual deputy level looking at only those who were elected in 2012. The reference category for the employed variables is those that are out of work. Standard errors are clustered at the municipality level.

TABLE A5: MISSINGNESS IN DECLARATIONS

	Filed Declaration		
	(1)	(2)	(3)
Non-systemic Opposition-Held Council × Post-2017	0.105*	0.036	0.109
	(0.060)	(0.077)	(0.101)
Opp. Majority in 2012	0.056	-0.057	0.279**
	(0.062)	(0.072)	(0.123)
Municipal Population (log)	0.108	0.107	0.703
	(0.097)	(0.100)	(0.564)
Num. Council Members	-0.003	-0.006	0.014
	(0.009)	(0.010)	(0.015)
R^2	0.309	0.330	0.505
Observations	3,312	3,010	302
Subset	All	Ruling Party	Opposition
Deputy fixed effects	✓	✓	✓
Year fixed effects	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes whether opposition control of municipal councils affects deputies' compliance with declaration rules. The specification is the same as in Table 1, except that the outcome is whether a deputy filed a declaration while in office. The sample includes all deputies that served in both the 2012 and the 2017 convocations, but without the additional sample restrictions described in the main text. Standard errors are clustered on the deputy level.

E Robustness Checks: Main Results

TABLE A6: VARYING OPPOSITION CONTROL AND DISCLOSED INCOME IN OFFICE

	Deputy Income (log)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Opposition-Held Council × Post-2017	-0.218***	-0.225***					-0.209***	-0.204**
	(0.078)	(0.086)					(0.080)	(0.081)
Opposition Seats (%) × Post-2017			-0.266*					
			(0.146)					
Opposition Seats > 25% × Post-2017				-0.123*				
				(0.066)				
Opposition Seats > 50% × Post-2017					-0.196**			
					(0.092)			
Opposition Seats > 75% × Post-2017						-0.158***		
						(0.042)		
Opposition-Minority Council × Post-2017							0.033	
							(0.066)	
Municipal Population (log)	0.903		0.858	0.841	0.901	0.907	0.943	0.911
	(0.800)		(0.800)	(0.801)	(0.800)	(0.801)	(0.806)	(0.802)
Num. Council Members (log)	-0.066		-0.004	-0.003	-0.055	-0.065	-0.100	-0.072
	(0.232)		(0.234)	(0.236)	(0.232)	(0.234)	(0.244)	(0.231)
Vote Percentage	-0.066		-0.126	-0.111	-0.062	-0.038	-0.039	-0.091
	(0.211)		(0.221)	(0.225)	(0.212)	(0.211)	(0.216)	(0.212)
Council Head	0.203		0.212	0.220	0.205	0.218	0.200	0.180
	(0.138)		(0.138)	(0.139)	(0.138)	(0.139)	(0.138)	(0.139)
Total Assets (ihs)	0.082*		0.083*	0.081*	0.082*	0.081*	0.082*	0.088*
	(0.049)		(0.049)	(0.048)	(0.049)	(0.049)	(0.048)	(0.050)
Married	-0.095		-0.099	-0.100*	-0.096	-0.094	-0.095	-0.094
	(0.060)		(0.060)	(0.060)	(0.060)	(0.060)	(0.060)	(0.061)
Num. Children	0.080		0.082	0.085	0.080	0.076	0.080	0.081
	(0.074)		(0.075)	(0.075)	(0.074)	(0.074)	(0.074)	(0.074)
Opp. Majority in 2012	-0.178		-0.189	-0.155	-0.177	-0.157	-0.159	
	(0.174)		(0.177)	(0.176)	(0.175)	(0.179)	(0.177)	
R^2	0.759	0.754	0.759	0.759	0.758	0.758	0.759	0.758
Observations	2,137	2,142	2,137	2,137	2,137	2,137	2,137	2,082
Deputy fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes annual deputy income. Columns only include ruling party deputies that served in both convocations (2012 and 2017). Column 8 removes the three municipalities which had majority control by the opposition in 2012 and 2017. Standard errors are clustered on the deputy level.

F Robustness Checks: Mechanisms

TABLE A7: OPPOSITION CONTROL AND COUNCIL ACTIVITY

	Revenue		Expenditures	Council Decisions			
	Taxes (log) (1)	Taxes (%) (2)	Government (%) (3)	All (ihs) (4)	Information (ihs) (5)	Compensation (ihs) (6)	Budget (ihs) (7)
Opposition-Held Council × Post-2017	0.059***	-0.011	0.008	-0.198*	-0.364**	0.042	-0.278
	(0.020)	(0.017)	(0.011)	(0.111)	(0.146)	(0.157)	(0.175)
Municipal Population (log)	0.085	-0.147*	-0.115***	-0.227	0.099	-0.367	-0.611*
	(0.065)	(0.076)	(0.021)	(0.401)	(0.292)	(0.315)	(0.356)
Num. Council Members	0.011	-0.005	0.004	0.102***	0.040	0.049	0.121**
	(0.007)	(0.005)	(0.003)	(0.033)	(0.041)	(0.044)	(0.055)
Opp. Majority in 2012	-0.038*	-0.032	0.013	-0.086	-0.273	-0.015	-0.088
	(0.022)	(0.027)	(0.030)	(0.173)	(0.203)	(0.304)	(0.274)
Expenditures (log)					-0.398**	-0.311*	-0.028
					(0.190)	(0.180)	(0.197)
R^2	0.678	0.859	0.702	0.710	0.615	0.524	0.590
Observations	1,227	1,227	1,096	1,266	1,131	1,131	1,131
Municipality fixed effects	✓	✓	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes outcomes related to budgets and legislative activity at the municipality-year level. Column 1 analyzes the amount of revenue (logged) raised through locally administrated taxes (income, profit, etc.), while Column 2 analyzes the percentage of all municipal revenue raised by these takes. Column 3 analyzes the percentage of all municipal expenditures that go to administrative expenses, in particular official salaries and bonuses. Columns 4-7 analyze the number of decisions passed by the councils each year. Column 5 totals all decisions, while Columns 5-7 break down according to information sessions, legislation on compensation and bonuses for deputies, and legislation to issue and/or ammend budgets. The number of meetings with bureaucrats did decrease in opposition-held councils, but the drop occurred during the peak pandemic years of 2020 and 2021, when these councils were more likely to curb in-person meetings. All outcomes are IHS-transformed. The inverse hyperbolic sine transformation is defined as log(y + $\sqrt{y^2+1}$). For large values of y, it performs similarly to the logarithmic transformation, but is able to accommodate values of 0. Standard errors are clustered at the municipality level.

TABLE A8: SYSTEMIC VERSUS NON-SYSTEMIC OPPOSITION

	Deputy Income (log)		
	(1)	(2)	(3)
Opposition-Held Council × Post-2017	-0.218***		
	(0.078)		
Non-systemic Opposition-Held Council × Post-2017		-0.231***	-0.232***
		(0.087)	(0.087)
Post-2017 × Systemic Opposition-Held Council			-0.143
			(0.117)
Municipal Population (log)	0.903	0.907	0.905
	(0.800)	(0.800)	(0.801)
Num. Council Members (log)	-0.066	-0.073	-0.069
	(0.232)	(0.232)	(0.232)
Vote Percentage	-0.066	-0.069	-0.068
	(0.211)	(0.211)	(0.211)
Council Head	0.203	0.203	0.203
	(0.138)	(0.138)	(0.138)
Total Assets (ihs)	0.082*	0.082*	0.082*
	(0.049)	(0.049)	(0.049)
Married	-0.095	-0.095	-0.095
	(0.060)	(0.060)	(0.060)
Num. Children	0.080	0.081	0.081
	(0.074)	(0.075)	(0.075)
Opp. Majority in 2012	-0.178	-0.181	-0.180
	(0.174)	(0.174)	(0.174)
R^2	0.759	0.759	0.759
Observations	2,137	2,137	2,137
Deputy fixed effects	✓	✓	✓
Year fixed effects	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes annual deputy income. Columns only include ruling party deputies that served in both convocations (2012 and 2017). Column 1 reproduces the results from the main text using the combined measure of systemic and non-systemic opposition. Column 2 examines an indicator for the 25 councils where the non-systemic opposition held a majority on its own. Column 3 examines an indicator for the 4 councils where members of the systemic and non-systemic opposition held a majority (but excluding the 25 where the non-systemic controlled a majority on its own). Column 5 codes a variable for whether the opposition held a majority after the defection of "hybrid" deputies. Standard errors are clustered on the deputy level.

G Robustness Checks: Mechanisms, Pre-Trends

Panels A and B from Figures 4 perhaps show slight pre-trends in the percentage of contracts and total contract volume procured using auctions in one to two years prior to 2018 when the opposition won majorities in these councils. This divergence could potentially signal a number of issues with the design: for example, United Russia may have anticipated the growing popularity of opposition parties in these districts and started to reform procurement in advance of the 2018 municipal elections. It should be noted that these plots only display the raw percentage of contracts that use auctions (or not), with no controls or corrections done.

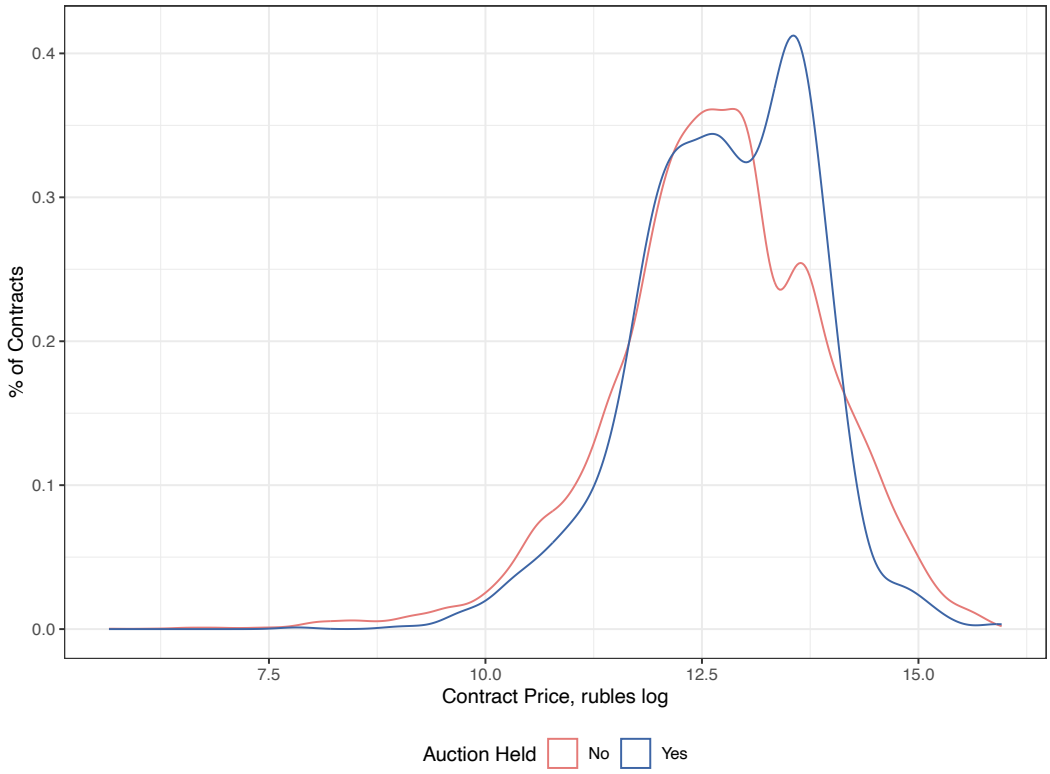
To address this concern, this section investigates whether this potential violation reveals something deeper going with regards to regime actions. First, the original models all control for the number and volume of contracts procured by each municipality each year. This control is done because the larger the contract is, the more municipalities are encouraged (but not mandated) to use electronic auctions as the procurement method (Yakovlev et al., 2016; Balaeva and Yakovlev, 2017). Although technically electronic auctions are supposed to be used for all contracts above 500,000 rubles, in reality procurers have some autonomy manipulate the system to use their preferred mechanism. Figure A3 shows indeed that larger contracts are more likely to see auctions used than in smaller ones.

Therefore, it is important to control for the number and volume of contracts in these municipality-year regressions, since contract price is such a significant predictor of auction usage. To illustrate this, I first regress the percentage of contracts that use auctions (number and volume, separately) on the total number of contracts (logged) and volume of contracts (logged) using the municipality-year level. These regressions are the same specification as Columns 1 and 2 in Table 3 of the main text, but drop all of the political variables (the main treatment of interest, number of deputies, etc.) as well as the municipality and year fixed effects.

I then extract the residuals from these regressions, which represent the leftover variation in auction usage by municipality-year once the total contract volume and number of contracts are controlled for. Figure A4 then plots these residuals, offering another perspective of the parallel trends in the pre-treatment period.[52]

[52] Constructing the residuals in such a way is not possible for the income DiD specifications

FIGURE A3: DISTRIBUTIONS OF MUNICIPALITY PROCUREMENT CONTRACTS BY SIZE



Note: This figure plots the distribution of contract prices for all procurements by Moscow municipalities from 2012-2021, broken up by whether an auction was used.

We see first in Panel A that there is no consistent pattern of districts later run by the opposition (post-2018) using auctions more frequently in the previous convocation. For 2014 and 2015, the trend goes in the opposition direction, as these opposition districts actually use auctions slightly less often. By 2017 and 2018 there is a slight divergence, but that gap closes between 2017 and 2018. This suggests that there is not a linear relationship between future opposition control and procurement outcomes in the pre-treatment period for this outcome. Panel B shows a similar back-and-forth pattern between 2014 and 2018, but the gap between the two lines completely disappears by 2018, the last pre-treatment year before the opposition fully takes their majority of seats in 2019. Taken together, these two plots serve as additional evidence that United Russia was not laying the groundwork with procurement reforms in these future opposition strongholds.

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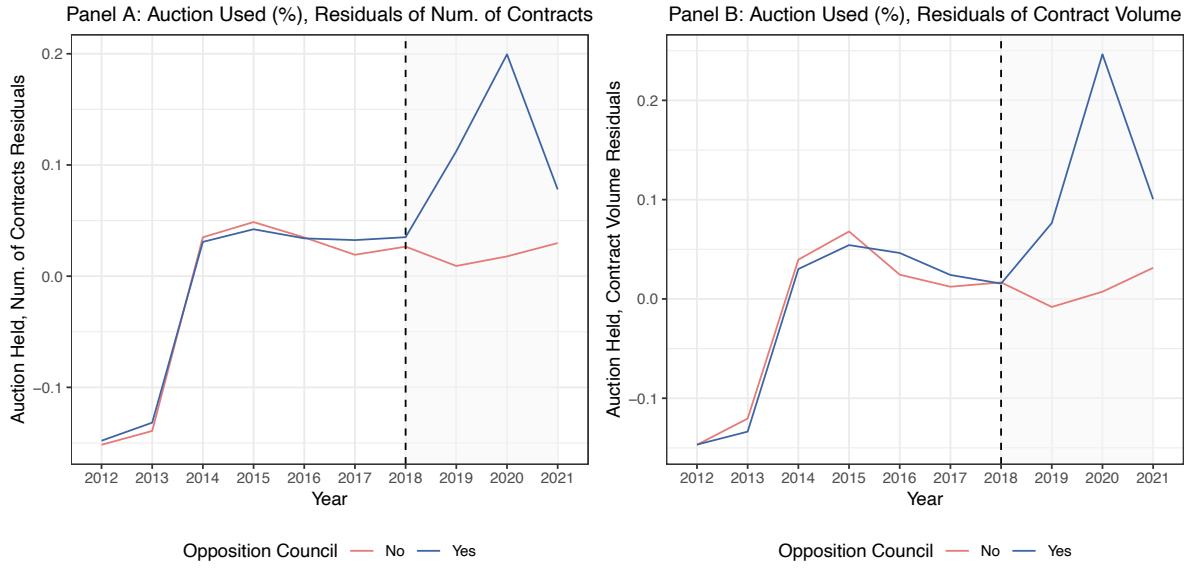
since there are no other time-varying indicators affecting deputy income that are not absorbed by the individual-level fixed effects.

Next, both these plots and those in the main text show that the impact of opposition majorities of procurement patterns take effect immediately upon them taking power, in this case already by 2019. This should help assuage concerns that the COVID-19 is the only factor impacting procurement practices. This large jump at the outset is also roughly five times any previous difference between the districts in the pre-treatment period. By 2021, when much of the COVID spending had concluded, auction usage returns to the previous trends. It is possible that opposition councils were able to better monitor spending under COVID-19, but the limitations of the design prevent me from definitively showing evidence of this.

FIGURE A4: CHANGE IN PROCUREMENT OUTCOMES OVER TIME, RESIDUALS



Note: This figure plots the a residuals from regressions of the percentage of contracts using auctions (Panel A) and total contract volume using auctions (Panel B) on the total number of contracts and contract volume (both logged) using the municipality-year data. The dotted line indicates the period following the 2017 election when the opposition took control over the municipalities included in the treatment group.

H Survey Experiment

To test how voters perceive independent candidates that join autocratic institutions, I placed a survey experiment on the second wave of the 2021 Russian Election Survey (RES). Since 1999, the RES has queried a nationally representative sample of Russian voters around national elections. In December 2021, the survey experiment was included on a questionnaire delivered face-to-face to 2,980 adults over the age of 18 from 62 regions. The survey was implemented by the Levada Center, Russia's oldest and most-respected independent polling agency.

The exact wording of the survey experiment is shown in Table A9 and described in greater length in the main text. Three-fifths of respondents in the survey were randomly assigned to six treatment groups, determined by the factorial combination of the 2 "policy" treatments and the 3 "cooperation" treatments shown in the table.[53] Balance checks indicate that the randomization was done correctly, as there are no significant differences across demographic characteristics across the groups.

The main outcome variable asks respondents to choose between Candidate #1 (who always represented United Russia) and Candidate #1 (who always was the independent without party affiliation). Similarly, the names of each candidate were not randomized. I transform this variable into binary indicators for which candidate the respondent referred, and analyze them in Columns 1 and 2 in Table A11 Respondents were though given the option of declining to vote for either candidate, an outcome that I analyze in Column 3 of Table A11. In Columns 4 and 5, I create an ordinal scale which takes a value of 1 if the respondent preferred the independent candidate, a 0 if the respondent preferred neither of the candidates, and -1 if the respondent preferred the United Russia candidate. I show results with and without controls, with standard errors clustered on region for all models.

[53] The remaining two-fifths of the sample was assigned to one of four treatment groups where only one candidate was shown rather than the comparison as shown in Table A9. I analyze differences in how respondents assess candidates when shown one choice versus two choices in a separate working paper. But for the purpose of this analysis, the division of the respondent sample does not affect identification as each respondent was randomly assigned to one of the ten treatment groups.

TABLE A9: EXPERIMENT QUESTION WORDING

	Candidate 1	Candidate 2
Name	Egorov Ivan Viktorovich	Stepanov Vacilii Ivanovich
Party Affiliation	United Russia candidate	Independent candidate not affiliated with any parliamentary political party
Policy Platform (Randomized)	1. **"Free Market"** The candidate advocates for a continuation of current government policies, including maintaining a large role for the government in the economy, restricting foreign investment and trade 2. **"State Intervention"** The candidate advocates for liberalizing reforms, including promoting free markets and the private sector and further integrating Russia into the world economy	
Cooperation With Authorities **(Randomized)**	No extra information given.	1. **"Control"** No extra information given. 2. **"Held Municipal Office"** The candidate won election as a municipal deputy five years ago and has since then worked/cooperated closely with the regime on governance issues. 3. **"Protested System"** The independent candidate has in the past criticized the Russian election system and never run for office before.

Outcome: Which of the two candidates would you be more likely to vote for?

1. Candidate # 1
2. Candidate # 2
3. Neither Candidate
4. Don't Know / Refuse to Answer

TABLE A10: SURVEY EXPERIMENT RESULTS (FULL SAMPLE)

	Candidate Preferred				
	United Russia	Independent	Neither	Ordinal Ranking	
	(1)	(2)	(3)	(4)	(5)
Constant	0.044	0.263***	0.693***	1.90***	2.22***
	(0.130)	(0.093)	(0.138)	(0.031)	(0.179)
Male	-0.054**	0.027	0.028		0.081**
	(0.022)	(0.026)	(0.026)		(0.040)
Age (log)	0.031	-0.052**	0.021		-0.083*
	(0.029)	(0.024)	(0.029)		(0.045)
Education Level	-0.016**	0.014	0.002		0.030**
	(0.007)	(0.009)	(0.011)		(0.012)
Employed	0.0007	0.008	-0.008		0.007
	(0.020)	(0.024)	(0.022)		(0.038)
Economic Situation	0.011	0.008	-0.018**		-0.003
	(0.009)	(0.008)	(0.009)		(0.015)
City Size	-0.015*	-0.007	0.022*		0.008
	(0.008)	(0.010)	(0.011)		(0.016)
Political Interest	0.041***	0.031**	-0.072***		-0.010
	(0.011)	(0.012)	(0.015)		(0.017)
Putin Supporter	0.242***	-0.062**	-0.180***		-0.304***
	(0.020)	(0.025)	(0.028)		(0.036)
Treatment: Collaborated	-0.059***	0.049**	0.010	0.107***	0.108***
	(0.020)	(0.020)	(0.025)	(0.032)	(0.031)
Treatment: Protested System	0.010	-0.003	-0.007	-0.033	-0.014
	(0.026)	(0.020)	(0.026)	(0.040)	(0.039)
Treatment: State Intervention	-0.040*	0.056***	-0.017	0.096**	0.096***
	(0.023)	(0.019)	(0.024)	(0.037)	(0.034)
R^2	0.101	0.024	0.055	0.012	0.068
Observations	1,661	1,661	1,661	1,727	1,661

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes the results of the survey experiment where respondents were asked to select one of two hypothetical candidates to the Russian Duma described in Table A9. Columns 1 and 2 analyze binary indicators for whether they preferred the United Russia or independent candidate. Column 3 analyzes an indicator if they selected "neither candidate". Columns 4 and 5 analyze an ordinal ranking which takes a value of 1 if the respondent preferred the independent candidate, a 0 if the respondent preferred neither of the candidates, and -1 if the respondent preferred the United Russia candidate. All models cluster standard errors at the region level.

TABLE A11: SURVEY EXPERIMENT RESULTS (EXCLUDING MOSCOW)

	Candidate Preferred				
	United Russia	Independent	Neither	Ordinal Ranking	
	(1)	(2)	(3)	(4)	(5)
Constant	0.065	0.233**	0.702***	1.91***	2.17***
	(0.136)	(0.098)	(0.145)	(0.034)	(0.188)
Male	-0.063***	0.042*	0.021		0.105***
	(0.022)	(0.024)	(0.028)		(0.037)
Age (log)	0.026	-0.048*	0.022		-0.074
	(0.031)	(0.025)	(0.031)		(0.048)
Education Level	-0.018**	0.017*	0.002		0.035***
	(0.008)	(0.010)	(0.012)		(0.013)
Employed	0.009	0.0004	-0.009		-0.008
	(0.020)	(0.024)	(0.024)		(0.037)
Economic Situation	0.011	0.009	-0.020*		-0.002
	(0.010)	(0.009)	(0.010)		(0.016)
City Size	-0.014	-0.003	0.017		0.011
	(0.009)	(0.011)	(0.012)		(0.017)
Political Interest	0.044***	0.031**	-0.075***		-0.013
	(0.011)	(0.013)	(0.015)		(0.018)
Putin Supporter	0.236***	-0.072***	-0.164***		-0.308***
	(0.022)	(0.026)	(0.027)		(0.040)
Treatment: Collaborated	-0.060***	0.044**	0.016	0.102***	0.104***
	(0.022)	(0.022)	(0.027)	(0.035)	(0.035)
Treatment: Protested System	0.018	-0.015	-0.003	-0.046	-0.033
	(0.028)	(0.019)	(0.029)	(0.042)	(0.038)
Treatment: State Intervention	-0.038	0.058***	-0.019	0.098**	0.096**
	(0.025)	(0.021)	(0.026)	(0.041)	(0.037)
R^2	0.100	0.028	0.052	0.012	0.071
Observations	1,506	1,506	1,506	1,566	1,506

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes the results of the survey experiment where respondents were asked to select one of two hypothetical candidates to the Russian Duma described in Table A9. Columns 1 and 2 analyze binary indicators for whether they preferred the United Russia or independent candidate. Column 3 analyzes an indicator if they selected "neither candidate". Columns 4 and 5 analyze an ordinal ranking which takes a value of 1 if the respondent preferred the independent candidate, a 0 if the respondent preferred neither of the candidates, and -1 if the respondent preferred the United Russia candidate. All models cluster standard errors at the region level. The sample excludes the 10% of respondents living in Moscow.