

Opposition Rule under Autocracy: Evidence from Russia

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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 transparent, competitive procurement and more efficiently allocating budget expenditures. 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.

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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 members of 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 have wide-ranging effects on downstream political outcomes. For example, Lucardi (2016) finds that opposition victories at the local level diffused across Mexico, ultimately unseating the ruling party in national elections. Yet most of the research to date has focused on how opposition parties exploit lower-level victories as a “springboard” into grander victories. We know comparatively less about how opposition forces actually govern within an autocratic power vertical.

This paper offers new insights by focusing on one critical governance output: 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 the potential for this issue to win over voters, many oppositions around the world have placed anti-corruption front and center in their political programs, promising that if they took power, they would reduce waste, eliminate opportunities for rent-seeking, and punish officials found stealing at the till (Carothers, 2023; Bågenholm, 2009). But can the opposition deliver on these promises and control corruption, especially if the autocrat still holds onto national power? Does the opposition actually govern more impartially or does it exploit the same rent-seeking opportunities as the ruling party upon taking office?

To investigate 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 political independents won a series of surprising victories in the Moscow municipal council elections. Through an astute recruitment and training regimen, opposition candidates managed to win half or more seats in 29 of 124 municipal councils up for grabs. Municipal

deputies may occupy the lowest political rung in Russia, but by virtue of being in the federal center of Moscow, deputies are still highly visible political positions with close connections to voting public and some levers to influence local policymaking.

Applying a series of difference-in-difference designs, I compare how corruption and other governance outcomes differed between councils held by the opposition versus the regime over the five-year municipal term. Primary data come from individual income and asset disclosures that municipal deputies are required to file every spring. The results indicate that opposition rule helps control corruption. Based on within-deputy specifications (i.e. using individual fixed effects), deputies in the ruling party earned roughly 21% less income in years where they served in an opposition-held council. However, there is no effect on the income of spouses of ruling party members nor is there any evidence that ruling party deputies are better able to hide their corrupt rents from being exposed through disclosures. To verify the latter, I analyze two measures of corruption based on hidden earnings and assets using both the disclosures data and a comprehensive data 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 and self-enrichment. In other words, the opposition behaves differently from the ruling party while in office.

To explain why ruling party deputies see such a drop in their incomes, I first collect data on both public procurement and municipal budgets and run additional difference-in-difference specifications at the municipality level. I find that opposition-held councils are significantly more likely to adopt more transparent, more competitive methods – electronic auctions – for procuring goods and services at the municipality level. Such methods have been found in other contexts to be associated with less corruption in procurement (Tkachenko, Yakovlev, and Kuznetsova, 2017; Pavel, Sičáková-Beblavá et al., 2013). Although the sums analyzed are small, these findings suggest that opposition councils organize procurement differently. Similarly looking at municipal budgets, I find that opposition councils raise more revenue, decrease expenditures, and overall increase budget surpluses. Changing the distribution of state resources may be one channel through which regime deputies are partially cut off from rent streams. I supplement these findings by drawing on primary sources documenting the efforts of the opposition to make government spending more transparent and cut down waste while in office.

Finally, I show evidence from an original survey experiment that voters reward opposition members who have prior experience in elected office, even when serving in government means collaborating with an autocratic regime. Analyzing a survey of 2,501 Russians in late 2021, I find that voters prefer hypothetical independent candidates to the Russian Duma over those from the ruling party only when independents have previously won municipal elections. Having boycotted the electoral system provides no such electoral dividend. In other words, opposition participation in autocratic governments not only leads to less corruption and waste, it better positions these challengers to win over voters for higher office.

This paper makes contributions to several distinct literatures. Although a large literature 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 when they take power. Translating lower-level electoral victories into higher office requires winning over voters with a verifiable track record in office. 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. However, the effects are only 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, can 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](#)). 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 state officials to enrich themselves in office. The benefits of working within institutions to improve government 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 public backlash over a disregard for democratic norms and imposition of a complete monopoly on power, only rarely do regimes ban oppositions altogether (Helms, 2021). Instead, autocrats wield a combination of carrots and sticks, at times repressing while others tolerating the entrance of some challengers into 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. An extensive body of work has uncovered the attractions and pitfalls of opposition-led boycotts (Beaulieu, 2014; Buttorff and Dion, 2017; Smith, 2014). Participating in elections could be viewed as complicit validation of the authoritarian project, conferring undeserved legitimacy hiding behind a veneer of democracy. For those oppositions that do contest elections, building unity among those loathe to cooperate with the regime is also no simple task, but also a necessary one for effectively competing against the administrative resources a regime can wield to uneven the playing field (Ong, 2022; Magaloni, 2010).

Yet much of the literature to date has focused on the opposition's strategic behavior around elections, rather than the consequences of their incorporation into the regime's political apparatus. One common outcome is co-optation, as the regime selectively grants access to spoils in an effort to divide, weaken, and prevent the opposition from capitalizing on its presence in office (Arriola, Devaro, and Meng, 2021; Reuter and Robertson, 2015; Szakonyi, 2023). Resisting these overtures and building an independent base can enable an opposition to achieve larger aims. For example, in Mexico, the opposition was able to create 'chinks in the armor' of the ruling party by stringing together municipal-level victories across the country (Lucardi, 2016). In the postcommunist region, Bunce and Wolchik (2011) describe how opposition activists used their perches in local elected office to mount more effective and coordinated movements to challenge authoritarian regimes at the national level. Indeed, opposition victories in local elections preceded five out

of six Color Revolutions in Eurasia (Bunce, 2017).

Momentum built from below can help signal to the general public that opposition leaders can govern effectively, while also opening up new avenues to media, financial, and organizational resources. The increased visibility can dent a dominant party's stranglehold on politics and provide a viable alternative for a potential mass of voters disillusioned with a monolithic regime (Langfield, 2014). Regimes that fail to exert control over local government, especially in urban centers, run a risk of their power vertical and monopoly on state resources being disrupted (Norton, 2022).

However, the extent to which local elections serve as a springboard depends on what the opposition actually does while in office, a question we know surprisingly little about. In Turkey, Öktem (2021) highlights both a change in rhetoric and media policy emerging after the democratic opposition wrestled Istanbul away from President Erdogan's ruling party the AKP, but also a compromising of democratic values seen as necessary for competing later on a national level. Other studies of democratic enclaves emphasize the usefulness of an opposition building a track record for later success, rather the actual content of their initiatives (Langfield, 2014). In democratizing countries, we know that locally elected governments can generate significant downstream impacts, such as provoking splits in national parties and refocusing attention the quality of local governance (Hankla and Manning, 2017). Oppositions may also commit to protecting democratic rights, including improving media freedom, protecting against disenfranchisement, and ensuring the right to freedom of assembly (Freeman, 2018). 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 and financial management 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 (as in the rotation of elites) can spur improved economic performance in autocratic regimes (Li and Zhou, 2005). Given this importance of political account-

ability, 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 emphasizing reform: curbing waste and corruption, upholding personal ethics, etc. 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 even the same level of 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 corruption to co-opt elites and ensure loyalty. Others use administrative resources to induce dependence and weave clientelist ties with voters. These tactics can definitively tilt the electoral playing field against the opposition. 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 (Freeman, 2018), as evidenced by episodes of opposition control in Venezuela (Dickovick and Eaton, 2013) and Zimbabwe (Raftopoulos and Mlambo, 2009). Opposition parties may also struggle to govern effectively due to their own internal weaknesses. For example, an uncompromising stance towards the regime can imperil negotiating and dealmaking necessary to operate under an authoritarian power vertical. Leaders of the opposition may also have ascended to their positions based on their strict ideological aversion to the regime or perhaps their ability to organize protests, resulting in niche political groups with little understanding of the nuts and bolts of governing (Farole, 2021). It still is an open question about what oppositions can actually achieve in power.

3 Institutional Setting

Prior to its 2022 all-out invasion of Ukraine, the Russian government was commonly classified as an electoral authoritarian regime, where an entrenched ruling party led by the increasingly personalist leader Vladimir Putin dominated executive and legislative institutions across the country (Gel'man, 2014). Though flawed and subject to intense manipulation, 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 handful of nominally independent political parties (in particular, the Communist Party, Just Russia, and the Liberal Democratic Party of Russia) that have some degree of 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 and seats in the Duma (Reuter and Szakonyi, 2022). In recent years however, some lower-level members of the systemic opposition have grown increasingly critical of the regime and have used their elected office to try and hold it accountable. Their efforts to challenge the regime have earned them overt support from some of the regime's most vehement rivals through 'smart voting' campaigns designed to channel anti-regime sentiment behind people that oppose the Kremlin (Turchenko and Golosov, 2023).

Russia's "non-systemic" opposition refers to a diverse array of political groups, activists, and individuals who operate outside the established political framework and actively criticize the authoritarian 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 alternative forms of political activism, such as street protests and civil society initiatives (Gelman, 2015). An upsurge in protests following fraud in the December 2011 parliamentary elections increased hopes that this opposition could challenge the regime at the polls. Since then, various non-systemic opposition leaders, most notably Alexey Navalny, have unsuccessfully tried to run in national and regional elections, but were met with severe repression, harassment and legal constraints by the government.

Given the concentration of non-systemic opposition activists in major urban centers, the 2011-2012 protests also generated interest in using municipal office as a springboard into national prominence. Moscow quickly emerged as a central target. Its municipal government operates

according to a vertical hierarchy similar to regions in the Russian federal system. At the top is an elected mayor, whose administration dominates policymaking in the city and enjoys the overwhelming majority of state resources. 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 an appointed head (glava upravy) and a council of between 10 and 15 deputies elected directly by residents of each municipality in multi-member majoritarian districts (Wienen and Dickson, 2019).¹

Councils must approve municipal budgets, along the way convening public hearings to get citizen feedback on various initiatives. Budgets include funding for the municipal administration and its employees, cultural initiatives, and small-scale social transfers, such as pensions for retired municipal employees. Deputies also oversee the approval process for construction projects (such as repairing apartment blocks) and beautification plans (such as improving outdoor spaces, parks and gardens, 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). Deputies can issue requests that compel bureaucrats and even elected officials at higher levels to respond to issues they deem of importance, either for themselves or their constituents.² For example, requests can be used to shape initiatives on education and culture as well as monitor public procurement (Szakonyi, 2021). However, most council positions are not compensated,³ and depending on the initiative taken, can place significant demands on a deputy's time.

Why then would the opposition ever target these relatively powerless municipal institutions? One of the key concessions made by the regime in response to the 2011-2012 protest wave was to reintroduce gubernatorial elections, which included those for the mayor of Moscow. But concerned about the possibility of the opposition successfully winning elections, the regime also imposed what became known as the "municipal filter", whereby mayoral candidates in Moscow have to earn the signatures of deputies from at least 75% of councils in order to register. Overnight municipal deputies became gatekeepers to the mayoral ballot. Another appeal behind municipal

¹Moscow technically has 146 municipalities, following the addition of 19 rural settlements and two urban districts in 2012. These new units are both geographically distinct from the urban center and on a different electoral cycle. Therefore, this paper focuses on the core 125 municipalities.

²"Kto takoy munitsipal'nyy deputat", Asafov.ru, August 8, 2022.

³Deputies can grant themselves small bonuses, which vary from council to council.

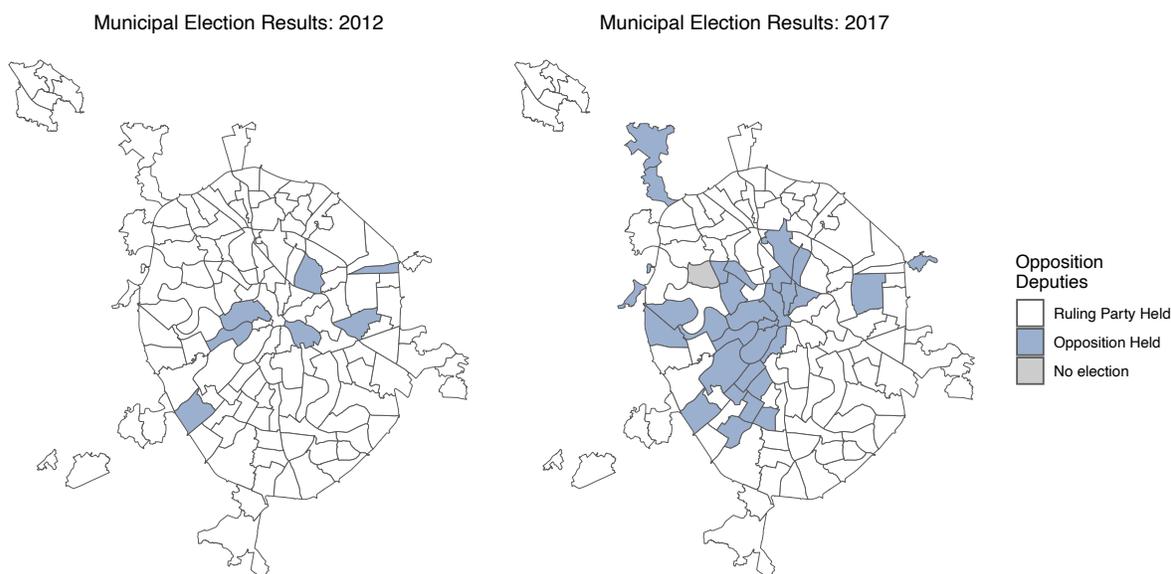
elections is the opportunity for the opposition to prove to voters that it can govern effectively. Since the dawn of the Putin era, those most fervently opposed to the regime have found themselves mostly locked outside of formal officeholding, and consequently vulnerable to critiques that they had fallen out of touch with real voter needs and were better at organizing protests than governing. Even minor elected office could help upend the narrative and create a springboard for victories at higher-levels.

In the run-up to the 2017 Moscow municipal elections, a new electoral strategy was led by Dmitry Gudkov, a former State Duma deputy with his sights set on the 2018 Moscow mayoral election, and Maksim Katz, Gudkov's former chief of staff and a former municipal deputy. Collective running under the grouping United Democrats (Ob'edinennyye Demokraty), this initiative combined lessons learned from past electoral cycles with modern campaign know-how in an attempt to catapult the opposition into real governing positions for the first time in over decade. Drawing on extensive interviews, [Gorokhovskaia \(2019\)](#) documents how the United Democrats movement in conjunction with several schools and initiatives transformed the opposition into a powerful electoral machine. First, the United Democrats paid special attention to candidate recruitment. Opposition to the regime and commitment to radical reform (rather than strict party affiliation) were the two key prerequisites. In fact, the United Democrats included members from both systemic and non-systemic opposition parties. Once selected, candidates received training about how to win voters over and assistance navigating Russia's arcane registration process, which is designed to filter out any candidates seen as threats to the regime ([Szakonyi, 2021](#)). Finally, coordinated central infrastructure helped opposition candidates fundraise, design and distribute campaign materials, exploit digital technologies and become acquainted with the basics of governing urban settings ([Gorokhovskaia, 2019](#)).

The end result marked a "small electoral revolution" ([Gorokhovskaia, 2018](#)), catching both the regime and many outside observers by surprise. Candidates aligned with the United Democrats platform won 267 out of the 1,502 seats up for grabs, just under one-fifth of all races contested; . Collectively, the opposition, that is members running on both systemic and non-systemic parties, won 349 seats. This gave them control over half or more of the seats on 29 of the 124 councils. Not a single United Russia candidate won a seat on eight councils, including in President Putin's home district of Gagarinsky ([Ross, 2018](#)). [Figure 1](#) depicts the sea change in opposition control over

municipal politics, with victories concentrated in the center and west of the city. As impressive as these results were, the opposition was not able to win enough seats to surpass the municipal filter and ensure that Gudkov could reach the Moscow mayoral ballot in 2018 (Golosov, 2018).

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 systemic and non-systemic opposition. Panel A shows results from the March 2012 election; Panel B shows results from the September 2017 election. One municipality (Shukino) held elections in 2012, and then again in 2016 (rather than 2017).

Right from the outset, expectations were low that a greater opposition presence on these councils would amount to any real change. First, the regime was both 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, interfering the regular work of the newly elected deputies (Gorokhovskaia, 2018). Other times, losing United Russia candidates formed “shadow councils” that attempted to usurp power from their democratically elected successors.⁴ Sticks were also used in place of carrots. Over the term, criminal charges were filed against nine deputies from the opposition, mostly based on accusations of extremism, with several either serving jail time or emigrating as a result.⁵ The regime’s investment in efforts to undermine, co-opt, and repress the opposition show that there was no previous intention to cede power in 2017 to those not aligned

⁴Vasil’chuk, Tat’yana. “Sergey Yur’yevich reshil, chto my uzhe vse raspilili” *Novaya Gazeta*, May 10, 2019.

⁵“Please take me back to 2017. how Moscow pressures independent municipal deputies” *OVD-Info*, November 11, 2022

with the Kremlin.

The opposition was not allowed to win in order to achieve some larger regime objective, but rather secured surprising victories based on its own organization and preparation. However, as impressive as the United Democrats training regimen was, most opposition deputies were newcomers to this upstart, diverse, and sometimes internally conflicted coalition of reformers.⁶ That inexperience combined with the limited scope of powers enjoyed by the councils led to conflicts within the opposition coalition itself and restrained optimism about policies actually changing.

4 Research Design

To analyze the opposition's governing performance, I collect data on all 125 municipalities located within the city of Moscow. Beyond the variation in electoral outcomes described above, there are a number of good reasons to focus the analysis on municipal politics on Moscow as a subset of the entirety of Russian Federation. First, Moscow is the largest urban agglomeration in the country, contributing upwards of 15% of GDP of the entire country (Kosareva and Polidi, 2017). Moscow municipalities are heterogeneous with their own social-economic profiles, but they still operate according to the same set of institutional rules (for example, those governing political selection, division of responsibilities, etc.) and occupy one rung in the same vertical hierarchy (Bederson, 2021). Finally, per Norton (2022), Moscow is "an ideal case study of the difficulty of urban co-optation" that many authoritarian regimes face.⁷ Its large, rapidly growing, and dense population can make governance especially difficult, all the while offering a unique opportunity for the opposition to exploit municipal office for potentially larger purposes.

4.1 Electoral Data

Data on candidates (both those elected and not) to Moscow municipal councils in the 2017 elections comes from the Russian Central Election Commission, which contains candidate affidavits and vote results for all 8,327 candidates who ran for office, and 1,502 candidates that won that

⁶Davydov, Ivan. "Oops! How Moscow's Municipal Election Turned into a Headache for City Hall." *openDemocracy*, September 20, 2017.

⁷Wallace (2014) makes a similar argument about the importance of autocrats placating urban demands to ensure long term survival.

election in 2017. I coded whether a deputy is a member of the opposition based on whether they ran on the United Democrats platform (267 deputies, or 17.8%), they were otherwise members of a systemic or non-systemic opposition party (44 deputies, or 2.9%), or they ran as independents (38 deputies, 2.5%). In other words, candidate was coded as part of the opposition if they did not explicitly run with the ruling party United Russia.

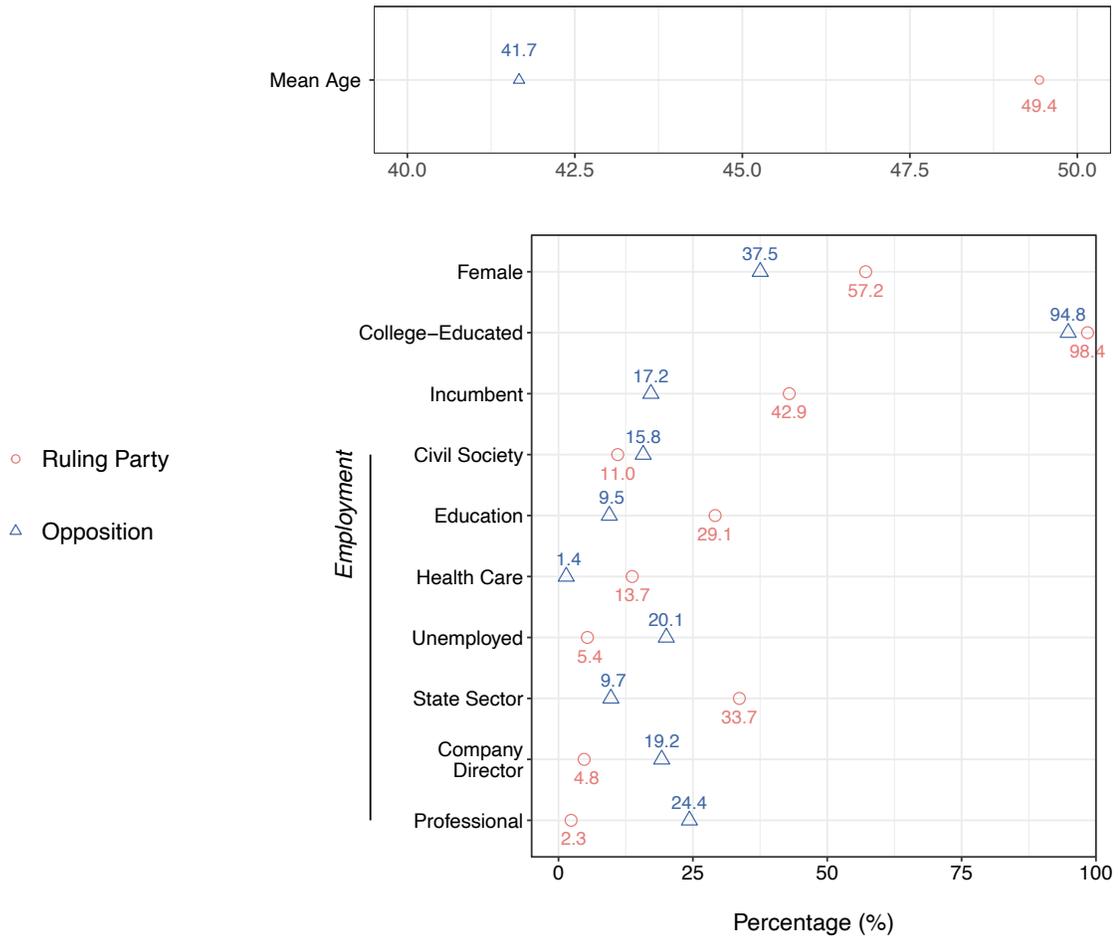
A binary distinction for whether deputies were members of the ruling party or not was made for several reasons. The lines between the systemic and non-systemic opposition do not map cleanly onto the United Democrats platform. Of the 267 deputies from the United Democrats, 26 were drawn from the ranks of the systemic opposition, with an additional 70 independent candidates. Similarly, of the 82 opposition members that were not part of the United Democrats coalition, 5 came from the non-systemic opposition (Yabloko). Rather than affirming their support for the regime, these deputies simply did not participate in Gudkov and Katz's candidate training regimen. Importantly, after the elections, all municipal deputies that were not members of United Russia were invited to join the Congress of Independent Deputies, which met regularly to coordinate the activities of the opposition across Moscow councils. Independent media following municipal politics similarly labelled deputies according to whether they were member of the ruling party or not. No distinction was made between different opposition affiliations, and journalists referred to the 29 councils where United Russia was not in the majority on as independent, democratic, and held by the opposition.⁸ In Section 5.4, I examine heterogeneity based on the different types of opposition.

I also coded candidates' age at the time of election, gender, and sector of employment as listed in their candidate registration forms.⁹ Figure 2 provides some basic summary statistics about how the opposition differs from an aggregated category of deputies from the ruling party. Opposition deputies are younger and more likely to be employed in the private sector, either as a company director or as a white-collar professional, but also are more often out of work.

⁸Talanova, Darya. "Dazhe satanu podklyuchili" *Novaya Gazeta*, January 12, 2022.

⁹I collected the same data for all candidates to the 2012 elections, which is used in the DiD specifications below.

FIGURE 2: DEPUTY CHARACTERISTICS BY POLITICAL AFFILIATION



Note: This figure shows summary statistics comparing the demographics of opposition deputies versus 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 the incidence of corruption at the municipal level, I exploit one of Russian President Dmitry Medvedev's first acts after assuming office in 2008: the passage of a wide-ranging set of anti-corruption laws. The crown jewel in these reforms was a new requirement that high-level officials begin filing annual financial disclosure forms detailing their own income and assets. Over the next decade, Russian lawmakers expanded on the initial legislation, ultimately settling on a set of far-reaching transparency requirements. First, by 2014 nearly all elected and appointed officials at the municipal, regional and federal levels would be required to submit forms electronically by April 1 for their activities the preceding fiscal year. Second, although the number of officials

filing disclosures is massive¹⁰ only a portion of *every* form would be made available to the public online.¹¹ Finally, following repeated acts of disobedience, in late 2015 new rules were put in place to punish those officials who failed to file forms or submitted incorrect information, either through removal from office or criminal prosecutions. Prosecutors in Russia regularly report thousands of officials being held accountable for such violations every year (General, 2018).

Since 2011, Transparency International - Russia (TI-R) has collected the disclosures of hundreds of thousands of officials in an online database.¹² I have worked closely with TI-R since 2017 to standardize and process the underlying data (for more detail see Szakonyi (2023)). Using both automated and manual efforts, I gathered all available disclosure forms for deputies serving in Moscow municipal councils from 2015 onwards, the first year that this level of official was required to submit. Disclosures contain information on annual income, real estate assets (type, size, and ownership, but not detailed addresses), and the make and models of all transportation assets for each municipal deputy, his or her spouse and dependent children. To date, deputies serving in either the 2012 or the 2017 convocations of municipal councils filed disclosures in 9,058 of the possible 10,971 years that were required to do so, a compliance rate of roughly 82.6%.¹³

I first capture corruption by looking at the reported incomes of deputies and their spouses, each logged. The amount of official income earned may reflect both legal and illegal rent-seeking activities. For example, a deputy may benefit personally from his or her company selling to the municipality, a clear conflict of interest that may not always merit criminal investigation. A deputy and/or their spouse could also earn extra income in consulting contracts, accessing a perk of office not available to those outside office. As shown above, deputies represent a broad range of professional backgrounds, some of which may be in stronger positions to capitalize on elected office. On average, deputies earned roughly 2.7 million rubles per year (or roughly \$54,000 at a constant exchange rate of 50 rubles to the dollar); their spouses, when employed, earned 1.1 million rubles (or \$21,000) per year.¹⁴

¹⁰The most recent version of the forms mandated disclosure of all income, expenditures, bank accounts, company shares, real properties, liabilities and transportation assets.

¹¹Example forms in English and Russian can be found in Appendix Section 7.

¹²The data can be found at <http://www.declarator.org>.

¹³This number understates true compliance since it includes in the denominator some deputies that had left office but are impossible to track.

¹⁴Because some candidates may earn money from real estate investments, I control for the number of real estate assets (IHS-transformed). In addition, I also control for the size of deputies' families, which can vary based on marriages,

However, deputies engaged in corruption may hide what they are actually making while in office from appearing in their disclosures. To measure these hidden assets and earnings, I create two indicators based on discrepancies in their forms. First, I use a new database of cars registered with Russian auto insurers to identify any luxury cars that deputies own or drove while in office but that did not appear in their disclosures; 35 deputies (2.3%) elected in 2017 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 total value of cars reported each by the total annual income for a deputy and his or her family 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 powerful indicator of financial malfeasance (Braguinsky, 2009; Braguinsky and Mityakov, 2015).¹⁵ Both measures are described in more detail in Appendix Section A as well as Szakonyi (2023).

I first combine the two indicators to create an time-varying index of corruption based on whether a deputy has an 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 one year flagged as corruption, accounting for 6.9% of deputy-years. Given the breadth of car registration and insurance databases available to investigators, deputies are more likely to be hiding their income rather than their assets. This aggregation approach follows work by Szakonyi (2023) that best combines the binary dimension of having hidden assets with the continuous measure of the hidden earnings. As a robustness check, I create a fully continuous measure of corruption that divides the total valuation of disclosed and undisclosed cars each year by total family earnings (I assign valuations to the undisclosed cars using the methodology described above. Due to extreme outliers, I windsorize this measure by removing the top and bottom 1%. Full summary statistics for the deputy-level sample can be found in Appendix Table A1.

Together the two measures capture both hidden income and assets held by deputies 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 civil

divorces, or kids leaving the household.

¹⁵Meduza ‘He could afford these Bentleys only if he starved himself for six years’. March 8, 2018.

society activists to scrutinize. Deputies with such red flags are not only abusing their office for personal gain, but are doing so in a manner than domestic actors may be more able to detect. Neither measure can capture, however, the presence of offshore assets or other hard-to-find laundering schemes. Therefore, following other work, we should interpret these indicators as capturing more easily detectable corruption, that could be used as ‘kompromat’ by officials (Szakonyi, 2023).

4.3 Identification Strategy

My primary approach for identifying the effect of opposition control on corruption outcomes involves a difference-in-differences design. First, I code the municipal councils where the opposition won 50% or more of the seats in the 2017 elections.¹⁶ These 29 municipal councils form the treatment group (‘Opposition-Held Council’), with the remaining 95 entering the control group.¹⁷ 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 therefore interact the treatment above with an indicator ‘Post-2017’ designating the years 2018-2021.¹⁸

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.¹⁹ The rationale for this subsetting is to limit selection bias. Council compositions councils changed dramatically following the 2017 election. Because demographic characteristics (for example, employment) may be very 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.²⁰ Taking advantage of this two-period design, I estimate the fol-

¹⁶In four municipalities, opposition candidates won exactly 50% of the seats. I code these as part of the treatment group based on the logic that their interests could not be simply ignored by the remaining regime-affiliated subgroup. This corresponds with news articles distinguishing the 29 councils as opposition held. Talanova, Darya. “Dazhe satanu podklyuchili” *Novaya Gazeta*, January 12, 2022.

¹⁷I drop the municipality Shukino from the analysis since it followed a different electoral calendar, with polls in 2012 and then again in 2016.

¹⁸The 2017 elections were held in September, with candidate-elects not formally entering office until later that month. Therefore for the annual analysis, I use 2018 as the first full year that the opposition held power in these councils.

¹⁹Appendix Table A3 analyzes the determinants of re-election for deputies. Overall, wealthier and less corrupt candidates from the ruling party are more likely to win re-election. For members of the systemic and non-systemic opposition, there are no clear correlates.

²⁰To ensure the accurate estimation of pre-trends, I also require all deputies in the sample to have submitted declarations in both years of the pre-treatment period (pre-2017) and deputies to not have changed municipalities between elections.

lowing equation:

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

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) and council size). All models use OLS and cluster errors at the deputy level.

To assess identification, I construct parallel trends for each of the outcome variables (both for deputies and municipalities) in the first period (2012-2017) when the opposition held no majorities. 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. These tests suggest an absence of pre-trends that might imperil the use of a difference-in-differences design to detect an effect of opposition control.

As long as parallel trends hold, selection into treatment need not undermine identification. Still, in Appendix A3 shows results from regressing opposition seat share (%) on a battery of predictors at the municipal level. The only statistically significant predictors are the size of the council (larger councils see a lower number of opposition deputies) and the number of candidates running in council races (the presence of additional candidates increases opposition victory). Importantly predictors such as population, council expenditures, budget deficit, and percentage of incumbents running for re-election are not correlated with opposition election success.

5 Empirical Results

How does opposition control over municipal institutions affect the rents to be gained 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. Column 1 includes all 357 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 United Russia in Column 2, we observe a 21% drop in deputy income in the post-2017 (post-treatment) period. In other words, ruling party deputies that win re-election into a council that is ultimately held by the opposition earn substantially less money in office compared to their previous time in office. Power sharing with the opposition reduces the returns to elected office for ruling party deputies. For the small number of opposition deputies that keep their seats, there is basically no change in reported deputy earnings (Column 3).

The left panel of Figure 3 provides a graphical representation of the results from Column 2, Table 1. The x-axis indexes the years under analysis, with the gray shaded area on the right indicating the period following the 2017 elections when the opposition took control over municipal councils. 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 see their income growing much more slowly than their counterparts in councils where the ruling party holds a majority of seats. Importantly, we also see no effect on opposition members growing richer when they hold a majority of seats on the councils.

Table A4 shows a series of robustness checks to probe these results further. First, I show that the results are robust to excluding all control variables and running a reduced-form model. 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 from the analysis. In the following sections, I explore possible mechanisms for why a majority is needed to change policy implementation rather than just opposition presence being enough to generate accountability pressure.

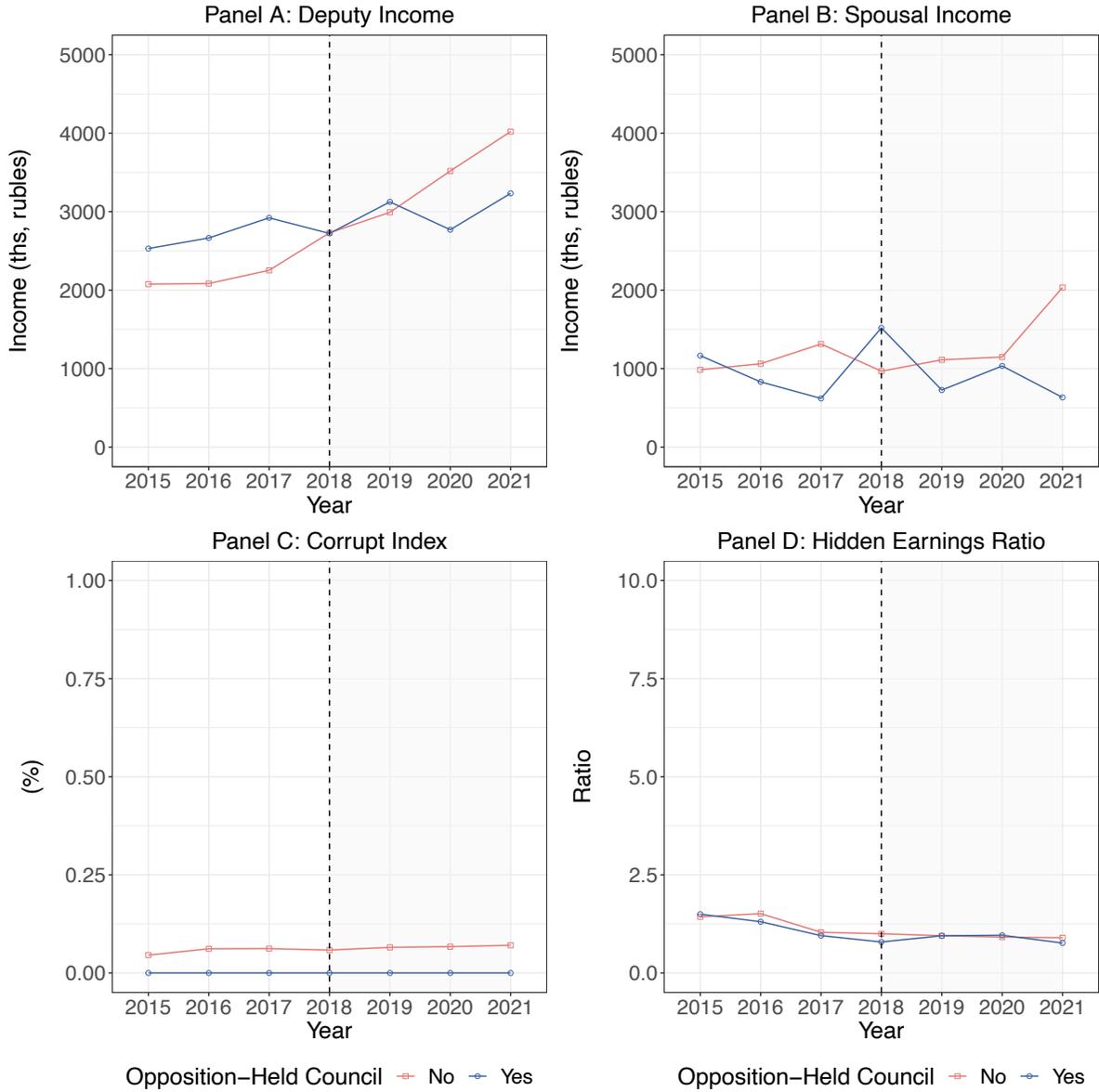
TABLE 1: OPPOSITION CONTROL AND REPORTED INCOME IN OFFICE

	Deputy Income (log)			Spouse Income (log)		
	(1)	(2)	(3)	(4)	(5)	(6)
Opposition-Held Council \times Post-2017	-0.138 (0.093)	-0.211*** (0.077)	-0.036 (0.168)	0.061 (0.300)	0.034 (0.266)	-0.294 (0.531)
Municipal Population (log)	0.977 (0.790)	0.844 (0.800)	0.889 (2.79)	2.44** (1.06)	2.65** (1.08)	-6.62 (7.96)
Num. Council Members (log)	-0.143 (0.234)	0.026 (0.238)	-2.74** (1.31)	-1.03 (0.700)	-1.20* (0.714)	-1.13 (2.97)
Vote Percentage	-0.052 (0.215)	0.016 (0.199)	-0.120 (0.911)	0.199 (1.01)	0.069 (1.13)	1.60 (1.83)
Council Head	0.346** (0.161)	0.222 (0.146)	1.74*** (0.211)	0.258 (0.291)	0.401 (0.302)	-0.676 (0.530)
Total Assets (lhs)	0.080 (0.049)	0.073 (0.050)	0.106 (0.137)	-0.151 (0.121)	-0.111 (0.132)	-0.466 (0.318)
Married	-0.033 (0.070)	-0.087 (0.060)	0.460* (0.259)			
Num. Children	0.130* (0.074)	0.089 (0.077)	0.213 (0.184)	-0.040 (0.199)	-0.150 (0.208)	0.110 (0.483)
R ²	0.755	0.757	0.674	0.638	0.656	0.569
Observations	2,368	2,064	304	1,352	1,168	184
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 either include the full sample of deputies that served in both convocations (2012 and 2017), or subset to those affiliated with the ruling party or the opposition. Standard errors are clustered at the deputy level.

Next in Columns 4-6, I examine spousal income, that is the money earned by the spouse of a deputy during his or her time in office. Here again we see a small, positive and statistically insignificant effect of opposition control of councils for spouses of ruling party deputies. The smaller

FIGURE 3: DEPUTY INCOME BY PERIOD AND OPPOSITION CONTROL



Note: This figure plots the average income for 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, thus differentiating between the first and second periods in the design.

sample size (not all deputies are married to spouses in the workforce) makes precise estimation difficult, as is also true for spouses of opposition deputies (Column 6). Spouses do not tend to see their earnings shift when the opposition takes control over the council.

Table 2 shows the same specifications but this time using the two corruption measures as out-

comes. Roughly 10% of deputies had some kind of hidden earnings or assets, the outcome in Columns 1-3, yet we see no real change in the incidence of this annual measure 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.

In sum, we see strong evidence that opposition control affects the amount of official income that ruling party deputies can earn during their time in power. The effects are large and statistically significant, suggesting over a 20% reduction in income for United Russia members if they lack a majority on their councils. Interestingly, this effect is only present for the deputies' reported income, and not that for their spouses or their hidden income and earnings. Ruling party deputies are not more likely to use harder to detect methods of hiding their assets or shifting their corrupt proceeds into other asset classes. Instead, their official incomes shrink. The remainder of the paper uses a combination of quantitative and qualitative analysis to dig into the mechanisms potentially explaining the large, concentrated effect on incomes.

5.1 Mechanisms: Procurement

First, why does power-sharing with the opposition limit opportunities for rent-seeking? A deeper exploration of the Russian setting may provide some clues. Though limited in their responsibilities, municipal deputies do have oversight powers over several key areas of Russian policymaking. For example, deputies monitor public procurement, viewed as one 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, with everyone from Putin's closest cronies to regional and local officials lining their pockets at the procurement trough (Barsukova, 2019; Mironov and Zhuravskaya, 2016).²¹

To test whether opposition control over councils affects this rent-seeking channel, I collect data on procurement from the Russian NGO ClearSpending, which operates a public portal to ease access to official state procurement data.²² Russia is somewhat unique among middle-income countries in making the universe of procurement data public available (though with a growing number

²¹The Moscow Times. "Public Procurement Kickbacks Total One-Third of Russia's Budget Revenue – Survey." The Moscow Times, May 26, 2023.

²²The data can be found at <https://clearspending.ru/>.

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	0.016 (0.016)	-0.004 (0.008)	0.043 (0.046)	-0.412 (0.295)	-0.172 (0.238)	-0.354 (0.987)
Municipal Population (log)	0.057 (0.056)	0.085 (0.055)	-0.999 (0.610)	0.207 (0.661)	0.411 (0.606)	-5.17 (15.2)
Num. Council Members (log)	-0.112 (0.075)	-0.143* (0.074)	0.277 (0.401)	-0.286 (0.575)	-0.442 (0.570)	5.47 (5.08)
Vote Percentage	-0.008 (0.051)	-0.033 (0.053)	0.114 (0.154)	-0.370 (0.840)	-0.890 (0.830)	2.77 (3.18)
Council Head	0.002 (0.006)	0.007 (0.008)	0.069* (0.038)	-1.17** (0.461)	-1.15** (0.528)	-1.17 (0.705)
Total Assets (lhs)	-0.013 (0.013)	-0.016 (0.010)	-0.0006 (0.059)	-0.101 (0.097)	-0.074 (0.103)	-0.268 (0.328)
Married	0.005 (0.023)	-0.012 (0.022)	0.097 (0.094)	-0.319 (0.378)	-0.218 (0.368)	-1.46 (1.65)
Num. Children	-0.0010 (0.014)	-0.010 (0.013)	0.022 (0.037)	0.099 (0.224)	0.204 (0.263)	-0.079 (0.504)
R ²	0.805	0.818	0.762	0.628	0.638	0.603
Observations	2,379	2,074	305	1,461	1,262	199
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 either include the full sample of deputies that served in both convocations (2012 and 2017), or subset to those affiliated with the regime or the opposition. Standard errors are clustered at the deputy level.

of exceptions starting in 2022).²³ Using the tax identification number for each of the 124 municipalities, I collected from ClearSpending all contracts signed by every municipality from 2012-2021. Across the ten-year period, the 124 municipalities signed 11,297 procurement contracts totaling 6.7 billion rubles (\$134 million).²⁴ On average, every municipality procured roughly \$100,000 in goods in services each year across eight individual contracts.

Even with this limited purse, municipal governments have experienced their fair share of corruption scandals (Detkova, Podkolzina, and Tkachenko, 2018). Officials manipulate the procurement process in multiple ways, though the most common is to procure goods through a single-bidder system with only the preferred supplier allowed to participate. A portion of the marked up contract price then flows back to the state officials as a kickback. The use of open, electronic auctions is believed to be the best deterrent for this type of collusion. Over the past year, reforms have compelled a growing portion of all procurement contracts to be run by auction, reducing but not eradicating opportunities for corruption. In many instances, government officials still have a choice of whether to use the less corrupt auction mechanism.

To analyze whether accountability in procurement improves, I first create a measure of the percentage of all contracts (both by number and by volume) that a given municipality procures using electronic auctions. In almost 45% of municipality-years, electronic auctions are never used, a clear indicator that procurement is not being opened up to all available bidders in a transparent, competitive fashion. Yet some municipalities still use auctions regularly, even for small contracts; for example, in 5% of municipality years, electronic auctions were used to procure over three-fourths of all goods and services by the municipality.

Next, I measure how often a municipality signs a contract identified by ClearSpending to be especially prone to corruption and collusion. ClearSpending has developed an automated system to assign up to eight red flags that signal potential manipulation, loopholes for embezzlement, inefficient spending, or other signs of limited competition (<https://clearspending.ru/in-control/>). For example, one red flag designates processes that were concluded too quickly to allow sufficient participation among potential suppliers, while another flags contracts signed with a supplier des-

²³In the aftermath of Russia's all-out invasion of Ukraine in February 2022, the Russian government began classifying more data about its expenditures. Therefore, all analysis of procurement ends in 2021, the last full year of data availability.

²⁴Estimated at a constant exchange rate of 50 rubles to the dollar.

ignated as “dishonest” by the Federal Anti-Monopoly Service. Overall, 22% of municipal contracts in the analysis data contained one or more red flags, the vast majority flagged for containing inaccurate or incomplete information about the good or service being procured. I create a measure at the municipality-year level about the percentage of procurement (both by number of contracts and by volume) flagged as anomalous by ClearSpending.

Table 3 applies the same DiD approach at the municipal-year level to understand the downstream effects of the opposition taking power. 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 are signed based on auctions (rather than more corrupt methods), resulting in almost 13% more state expenditures (Column 2) flowing through this channel. Although the sums collectively are lower, these results suggest that opposition control over these councils affects the way the institutions do business more broadly with suppliers. In Columns 3 and 4, I examine the likelihood of contracts signed by municipalities being red-flagged as vulnerable to corruption, based on either the number or volume concluded. In both instances, the sign on the interaction effect is negative but imprecisely estimated. The magnitudes though are large, suggesting that with greater statistical power, we could see more robust evidence that opposition control over councils lead to a reduction in anomalies plaguing Russian public procurement.

These effects are also seen clearly in Figure 4 which aggregates the information on procurement by year and opposition control, dividing the sample into the two periods using a dotted line. Up until 2018, treated and control councils followed a very similar trajectory. But following the opposition’s ascendance in 2018, we see 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 change quickly after the opposition took control over councils in 2017.

TABLE 3: OPPOSITION OVERSIGHT OVER PROCUREMENT

	Auction Held		Anomaly Found	
	% of Contracts, Num. (1)	% of Contracts, Vol. (2)	% of Contracts, Num. (3)	% of Contracts, Vol. (4)
Opposition-Held Council × Post-2017	0.097*** (0.033)	0.128*** (0.041)	-0.062 (0.061)	-0.048 (0.062)
Municipal Population (log)	-0.055 (0.077)	-0.026 (0.076)	0.107 (0.097)	0.258*** (0.091)
Num. Council Members	-0.004 (0.015)	-0.006 (0.013)	-0.020 (0.016)	-0.020 (0.017)
Contract Volume (log)	0.018* (0.010)	0.0005 (0.011)	-0.015 (0.016)	-0.011 (0.017)
Expenditures (log)	-0.027 (0.035)	0.013 (0.035)	0.093** (0.042)	0.072 (0.051)
R ²	0.438	0.417	0.395	0.357
Observations	1,173	1,173	1,173	1,173
Municipality fixed effects	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓

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

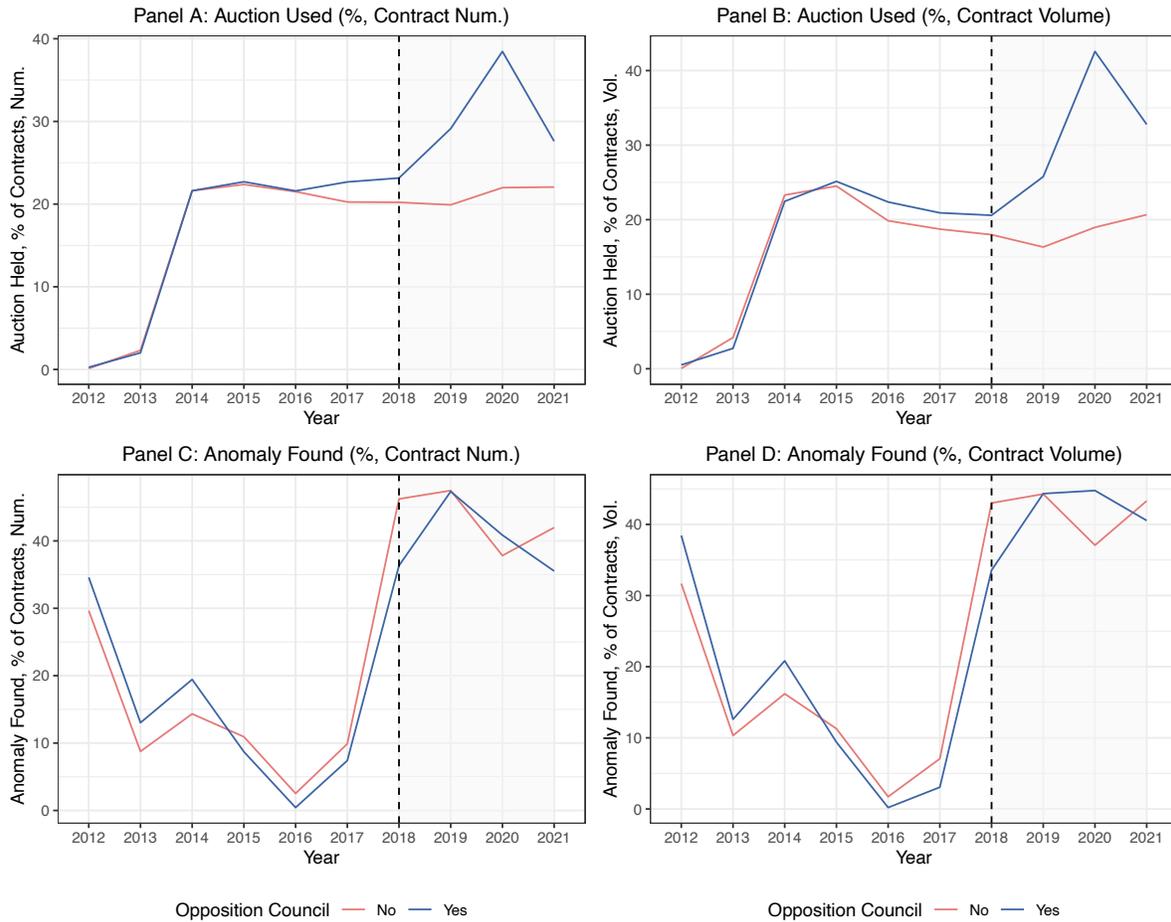
5.2 Mechanisms: Budget Expenditures

Official procurement statistics capture only a small share of municipal spending, more specifically those contracts where goods or services are bought from external suppliers. On the other hand, municipal budgets encompass all government spending at this level of government. By changing the way that these budgets are both raised and allocated, opposition councils may be able to deprive ruling party deputies of desirable rent-seeking opportunities and thus additional income. Budget politics also may be an arena for the regime to handcuff opposition-held councils. Curbing council fundings could limit the opposition’s ability to invest in public-facing projects that could improve their image and attract voters.

To test whether budgets change under opposition control, I collected data on all state spending by municipalities. These data are collected independently from the procurement contracts and come from the Russian State Statistics Agency for the years 2012-2020.²⁵ Budgets average roughly \$500,000 per council per year. The difference-in-difference design is identical to the municipal-level regressions from the previous section.

²⁵Russian budget data historically are released in bulk by May of the following fiscal year. For unknown reasons, 2021 and 2022 data have not been released in the central portal. Data for 2021 was collected by hand using the original budget documents, leading to slight missingness that hopefully will be remedied in future releases. Data for 2022 is currently not available for the majority of municipalities.

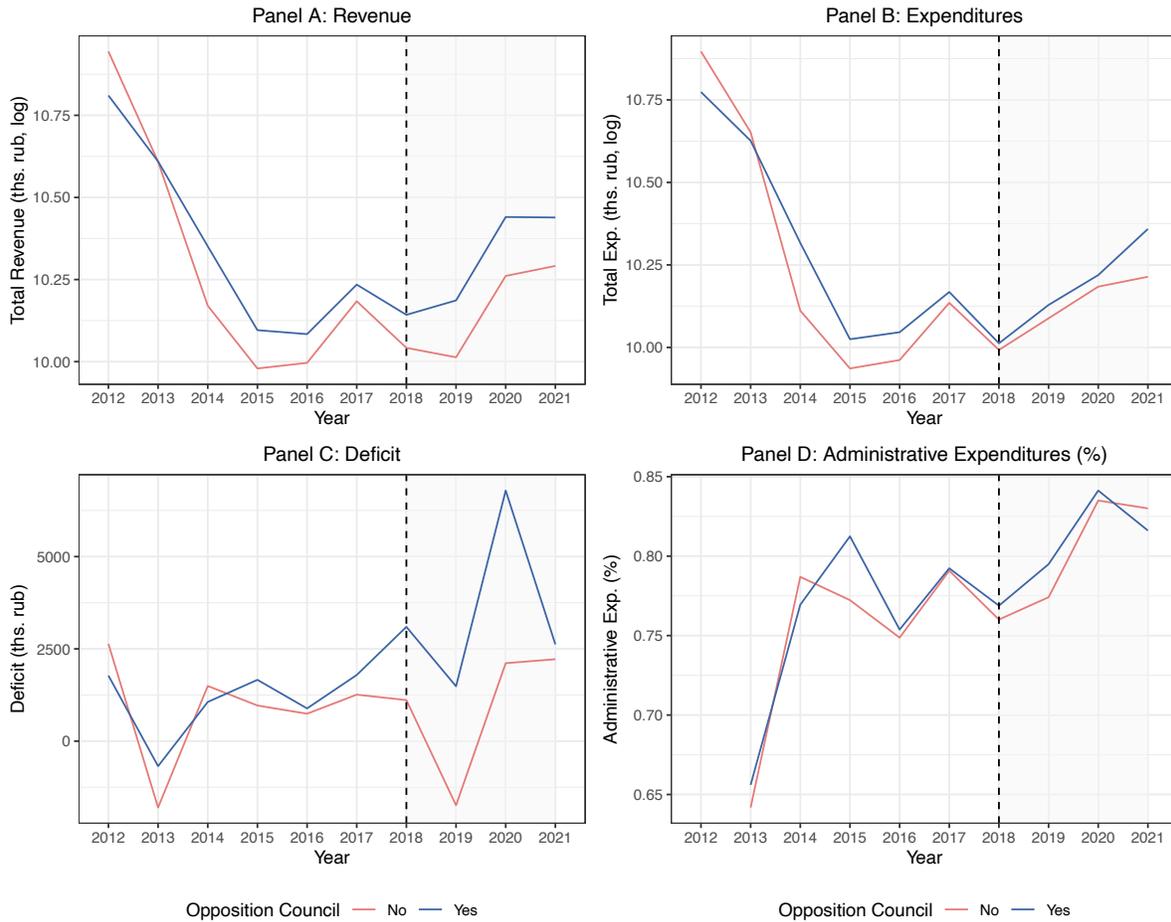
FIGURE 4: CHANGE IN PROCUREMENT OUTCOMES OVER TIME



Note: This figure plots the average of each procurement-related outcome labelled in the Panel headings by treatment group (Opposition Council) 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, thus differentiating between the first and second periods in the design.

Figure 5 plots the changes over time for four key budget-related outcomes: revenue (Panel A), expenditures (Panel B), the deficit (revenue-expenditures, Panel C), and administrative expenses, which cover salaries and the operations of the municipal government (Panel D). Regression results for each of these outcomes can be found in Appendix Table A5. We see strong evidence again of the opposition changing the way municipal institutions are run. Rather than being deprived of revenue, opposition-held councils actually see slightly faster growth in revenue while also decreasing expenditures. Appendix Table ?? shows that this increase is not coming from larger transfers from higher-level governments, who might be intervening to shape municipal politics. Opposition-held councils derive the same percentage of revenue from taxes versus transfers, but see higher

FIGURE 5: CHANGE IN BUDGET OUTCOMES OVER TIME



Note: This figure plots the average of each budget-related outcome labelled in the Panel headings by treatment group (opposition-held Majority) and control group by year. Panel D is calculated using total 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, thus differentiating between the first and second periods in the design.

receipts from tax collection.

Expenditures in opposition-held councils also decline, creating large surpluses and suggesting that wasteful spending declined in these places. More efficient spending may help explain why regime-affiliated deputies fare worse financially in opposition-held councils. Appendix Table A8 indeed shows that opposition control has no effect on the amount of money councils spend on salaries and bonuses. The increase in deputies' income comes from unofficial compensation. Finally, we do not see evidence that opposition presence on councils leads to paralysis and an inability to pass spending bills. Using data on all decisions passed by councils from 2012-2021,

Appendix Table A8 analyzes whether legislative activity differs depending on opposition presence. Although the number of informational meetings decreases in opposition-held councils,²⁶ we do not see these councils struggling to issue or amend budgets.

5.3 Qualitative Evidence

Statistical analyses demonstrate that procurement and spending patterns changed in opposition-held councils, helping to explain why ruling party deputies find it harder to earn money from the state during their time in office. To fill out the picture about why these outcomes change, I draw on several types of qualitative evidence, including interviews with deputies and public voter reports of their activities. These varied sources provide a number of specific examples of how opposition deputies exercised their limited powers to scrutinize state spending. They also demonstrate that deputies' activities in office are much more focused on changing the way the state spends money rather than investigating their colleagues and highlighting specific instances of ruling party corruption.

First, many deputies spoke at length during their time in office about the importance of closing down channels of unnecessary spending that may be lining the pockets of elites closely connected to the state. Per Gorokhovskaia (2018, 598), one deputy "intervened in attempts to siphon budget money to crony companies by assigning repairs that were not needed." Careful inspections to the list of repairs helped reduce opportunities for higher-level municipal officials to shovel through their preferred projects and suppliers. Shortly after taking office, opposition leader Ilya Yashin cited an example of 37 million rubles (roughly \$600,000) being spent on the renovation on a small square; one of his first priorities in office would be to review the contract as well as initiate inspections and closely monitor capital investments.²⁷ However, another deputy acknowledged that even though they had imposed "strict control" over municipal spending, the small size of budget didn't amount to much in savings.²⁸

²⁶Councils call these in-person meetings to ask questions of local bureaucrats and citizens on issues related to their authorities. Opposition-held councils may have been more likely to reduce their frequency during the peak pandemic years of 2020 and 2021, when we see a large drop.

²⁷BBC News "Chto smogut sdelat' v Moskve oppozitsionnyye munitsipal'nyye deputaty? Ne tak mnogo" Russia Service, September 11, 2017

²⁸BBC News "Chto smogut sdelat' v Moskve oppozitsionnyye munitsipal'nyye deputaty? Ne tak mnogo" Russia Service, September 11, 2017

Deputies also file reports to their voters documenting their activities while in office. Aleksei Panov specifically described efforts to ensure that competitive mechanisms were being used to procure even small-size contracts:

For example, a holiday is being celebrated in the municipality, (the municipal head) doesn't invite (deputies) to the organizing commission, but rather signed the documents himself, which itself is incorrect. And in those cases where a contract with a company is less than 100,000 rubles, he doesn't need to hold a real competition. Thus, it is unclear how much money is being spent, he doesn't share the documents with us.²⁹

Concerns over the municipal head bypassing auctions led to conflicts between opposition deputies and the now regime-aligned head. Opposition activists regularly boasted of intervening in the state procurement system to cut off excessive spending, including cancelling a \$6 million contract that duplicated other work done (Ramenki Council)³⁰ and stopping state funds from being used to rent a car for officials (Khamovniki).³¹ Several of these contracts directly benefitted members of the ruling party. For example 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).³² Interestingly, the focus in these reports is much more on monitoring procurement than uncovering and investigating the rent-seeking activities of their colleagues. Opposition deputies may not have the investigative tools, expertise, or resources to play this role, instead focusing their attention on administrative processes where they can immediately exert influence.

5.4 Systemic versus Non-Systemic Opposition

So far the paper has made little distinction between the systemic and non-systemic opposition operating in Russia, opting instead to analyze the differences in councils held by the ruling party and those that were not. Yet we might expect that councils controlled by members of the United

²⁹Vasil'chuk, Tat'yana. "Sergey Yur'yevich reshil, chto my uzhe vse raspilili" *Novaya Gazeta*, May 10, 2019.

³⁰Bobrinskiy, Nikolay. "Uspekhi i neudachi nezavisimyykh deputatov v Ramenkakh", February 4, 2019.

³¹Karnaukhova, Aleksey, "Otchet deputata Soveta deputatov munitsipal'nogo okruga Khamovniki Aleksey Karnaukhova", Moscow, 2018

³²Karnaukhova, Aleksey, "Otchet deputata Soveta deputatov munitsipal'nogo okruga Khamovniki Aleksey Karnaukhova", Moscow, 2018

Democrats, who both demonstrated an ability to coordinate electoral activities and stronger antipathy towards the regime, to be more successful in curbing rent-seeking among ruling party officials. Already a couple weeks after the 2017 election, leader of the opposition Ilya Yashin commented that his coalition was ready to coordinate efforts in the fraction of municipal councils it controlled, suggesting that all of the opposition was not completely on board in their governing priorities.³³

In Appendix Table A9, I separately analyze councils where the non-systemic opposition held a majority on its own (Column 2). Column 3 adds an indicator for those four councils where only the combination of non-systemic and systemic opposition members was enough to hold a majority. Importantly we see that ruling party deputies earn less income in councils controlled both by the non-systemic opposition and those where the systemic opposition is needed for a majority. The difference in coefficients in Column 3 is 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 in some sense be best understood as more of a 'swing' group in Russian politics that is commonly appreciated. 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

The opposition's relative success governing in Moscow raises the possibility of these electoral successes helping create a springboard to higher office (Lucardi, 2016). However, in the case of Russia, that window of opportunity was slammed short by Russia's all-out invasion of Ukraine in 2022. Putin's regime stepped up its limitations oppositional activity and dissent in the country, bringing criminal charges against a range of opposition figures, journalists and activists for any anti-war

³³Radio Svoboda. 'V Moskve proshel Kongress nezavisimyykh deputatov.' October 1, 2017

stances. That escalation enveloped the September 2022 Moscow municipal elections, where the regime's use of repression and electoral fraud doomed the oppositions chances at holding onto council control.³⁴

But the shock to Russian politics caused by the war should not negate the fact that opposition groups may still be able to benefit from governing under autocratic regimes. Reducing corruption is firmly in the public interest and although it may shore up regime stability in the short-term, increasing citizen expectations of their elected leaders and delivering more accountable governance are still steps towards democratization. But perhaps more importantly in the long-run, voters may prefer opposition candidates that show a willingness to work alongside the regime in order to gain governing experience.

To test this, I placed an original vignette experiment on a nationally representative survey of 2,980 Russian adults just three months before the outbreak of Russia's 2022 invasion of Ukraine.³⁵ The experiment prompted respondents to consider two hypothetical candidates to the State Duma running for election the next year in their district. The exact question wording can be found in Table A10.

One candidate represented the ruling party United Russia, while the other was running as an independent, not affiliated with any political party with seats in parliament. In that respect, that set-up closely resembles competition at the local level in Moscow. The experiment first randomly assigned both candidate to one of two 'economic treatments': each either advocated for more or less state intervention in the economy. By including information on an important policy preference, I aimed to capture respondents' view of what these candidates might try to achieve in office, independent of political affiliation.

The main treatment, however, involved randomly adding information on the political background of the independent candidate.³⁶ One group of respondents learned that not only that the independent candidate had won election as a municipal deputy *ve* years prior, but since then had worked closely with the regime ("vlast'") on governance issues. This "Held Municipal Office" treatment examines the potential of municipal office to act as a springboard for candidates

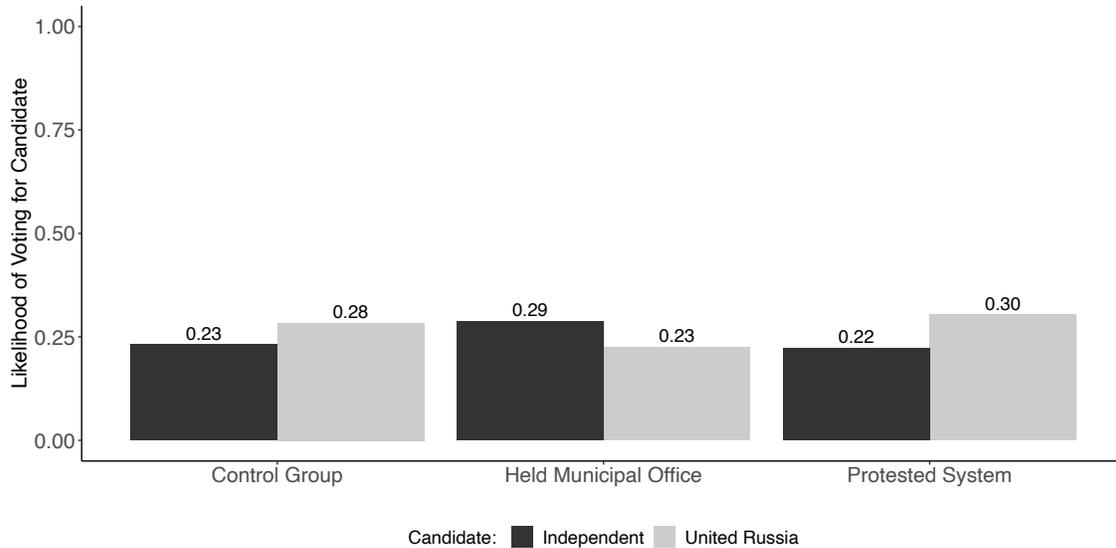
³⁴Many opposition leaders also had fled the country by the fall of 2022.

³⁵Unfortunately, the war has severely complicated the administration of any further public opinion surveys to assess satisfaction with local authorities in Moscow. More details about the survey can be found in Appendix Section 8.

³⁶No additional information was provided about the candidate from United Russia.

to attract voters. On the other hand, another group of respondents received information that the independent candidate had in the past criticized the Russian election system and never run for office before (the “Protested System” treatment). Another group of respondents received no additional information about the independent candidate. Respondents were then given a choice of supporting the United Russia candidate, the independent candidate, or neither.

FIGURE 6: EXPERIMENTAL EVIDENCE ABOUT OPPOSITION GOVERNANCE



Note: This figure plots the means of whether respondents would vote for the UR candidate or the independent candidate for each political 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 group. Since respondents were asked to choose between the candidates, the bars capture the means of binary indicators for whether the respondent chose that particular candidate (UR or independent).³⁷ We see that overall respondents prefer United Russia to independent candidates by roughly 5 percentage points when no additional information is given about either candidate. But when respondents are informed that independent candidates had held office prior and even worked with the regime, their support flips and independent candidates command a 6 percentage points 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

³⁷ Analysis of those who chose ‘neither’ is in Appendix Table A11.

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 demonstrates that when autocrats share power with the opposition, at least at the sub-national level, opportunities for corruption decrease. Importantly, how much the opposition can constrain the regime depends on whether it controls versus just participates in formal political institutions. The Russian opposition had little success driving down ruling party personal incomes when they occupied a minority of the seats on councils. Holding a majority was critical to effectively managing and overseeing the administration. These findings suggest that electoral accountability, in other words competition to win over voters and secure re-election, may not be sufficient in autocracies to improve governance. Instead, control over policymaking is necessary to change regime behavior.

Experimental evidence suggests that voters may then respond positively to these importances in the efficacy of local government and reward opposition politicians who pursue elected office. Indeed, the fact that an opposition could achieve any anti-corruption gains in such a difficult and repressive setting, and with limited resources and responsibilities, suggests there are similar dividends to be had from opposition participation in governments in other settings. Pre-war Russia shares many similarities with other electoral authoritarian regimes, even being emulated as an autocratic model of governance by some countries in its periphery. In some settings, boycotting elections may be a counterproductive strategy that hurts the chances of challengers to pose a real public threat to autocratic regimes.

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Appendix

Summary Statistics

TABLE A1: SUMMARY STATISTICS

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	0.98	0.15	0	1
Council Head	1,480	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)	1,451	2,925.01	3,406.84	97.11	63,480.97
Spousal Income (ths. rub)	957	1,280.84	2,225.93	0	35,980.44
Num. Real Estate Assets	1,056	3.61	2.49	1	23.67
Married	1,480	0.65	0.48	0	1
Num. Children	1,480	0.23	0.47	0	4
Served in Opposition Council	1,480	0.22	0.42	0	1
Corrupt Index (binary)	1,451	0.07	0.25	0	1
Hidden Earnings Ratio	1,122	1.07	1.35	0.06	11.11

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

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.

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 draws off 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.³⁸ Several journalists confirmed its coverage by analyzing random samples.³⁹

Because the leaked VIN database only had information on car characteristics, I used a website for 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 following car accidents who can verify the insurance of the other parties in the accident by submitting their VIN numbers online. The insurance records include information from nearly every insurance company active in Russia and because car insurance is mandatory in Russia, this dataset covers the vast majority of vehicles driven.⁴⁰ 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).⁴¹ I ran individual queries 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.⁴² By focusing on luxury rather than economy cars, this approach is better able to identify those officials most engaged

³⁸GIBDD translates to the ‘General Administration for Traffic Safety’ and is the equivalent to the Department of Motor Vehicles in the US.

³⁹Kinyakina, and Yekatyerina Angyelina Kryechyeva “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.

⁴⁰Stepanov, Dmitriy. ‘V Rossii zarabotala infosistyema avtostrahovshshikov, pyeryepisannaya za 2 milliarda <s noolya>’ *cnews.ru*, June 29, 2020

⁴¹Owners 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.

⁴²Identifying the owners data on all makes and models of cars in Russia would cost over \$1 million, an impossible sum for social science researchers.

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). For a municipal deputy who owned that car in 2015, its value would be set at 1,507,803 rubles, or roughly \$21,500. 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, 2023](#)). 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. Unfortunately, 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.

Robustness Checks: Identification

TABLE A2: DETERMINANTS OF OPPOSITION SUCCESS IN 2017 MUNICIPAL ELECTIONS

	Opposition Seats (%)		
	(1)	(2)	(3)
Constant	-0.360 (1.10)	1.08 (1.12)	1.08 (1.12)
Num. Council Members	-0.008 (0.011)	-0.070*** (0.013)	-0.070*** (0.013)
Municipal Population (log)	-0.142** (0.065)	-0.057 (0.066)	-0.057 (0.066)
Expenditures (log)	0.228* (0.119)	-0.028 (0.144)	-0.028 (0.144)
Surplus	0.008 (0.008)	0.013 (0.008)	0.013 (0.008)
Num. Incumbents Running		0.002 (0.007)	0.002 (0.007)
Num. Candidates Running		0.013*** (0.002)	0.013*** (0.002)
R ²	0.082	0.319	0.319
Observations	124	124	124

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. Standard errors are clustered at the municipality level.

TABLE A3: DETERMINANTS OF RE-ELECTION IN 2017 MUNICIPAL ELECTIONS

	Re-elected in 2017			
	(1)	(2)	(3)	(4)
Female	0.082*** (0.025)	0.080*** (0.028)	0.100*** (0.036)	-0.062 (0.054)
College Educated	0.113*** (0.041)	0.056 (0.043)	0.052 (0.062)	0.044 (0.046)
Age (log)	-0.091* (0.055)	-0.187*** (0.059)	-0.200*** (0.076)	-0.071 (0.082)
Employed: Civil Society	0.105** (0.046)	0.117** (0.050)	0.124* (0.073)	0.106 (0.092)
Employed: Education	0.009 (0.042)	-0.046 (0.046)	-0.068 (0.071)	0.006 (0.063)
Employed: Health Care	0.012 (0.052)	-0.032 (0.055)	-0.052 (0.078)	0.204 (0.140)
Employed: State Sector	0.120** (0.048)	0.105** (0.051)	0.118 (0.080)	0.003 (0.070)
Employed: Company Director	0.037 (0.048)	-0.012 (0.053)	-0.011 (0.081)	0.055 (0.089)
Party: United Russia	0.281*** (0.037)	0.251*** (0.045)		
Party: LDPR	0.070 (0.110)	0.006 (0.115)		0.250 (0.162)
Party: Just Russia	0.133** (0.053)	0.148** (0.063)		0.123* (0.072)
Party: Yabloko	0.075 (0.108)	0.065 (0.114)		0.033 (0.147)
Deputy Income (log)		0.093*** (0.021)	0.125*** (0.026)	-0.026 (0.041)
Total Assets (lhs)		0.080*** (0.029)	0.088** (0.035)	0.084* (0.047)
Corrupt Index (binary)		-0.211*** (0.034)	-0.274*** (0.041)	-0.081 (0.073)
R ²	0.162	0.237	0.250	0.435
Observations	1,283	1,165	909	256
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.

Robustness Checks: Main Results

TABLE A4: VARYING OPPOSITION CONTROL AND DISCLOSED INCOME IN OFFICE

	Deputy Income (log)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Opposition-Held Council × Post-2017	-0.211*** (0.077)	-0.232*** (0.087)					-0.201** (0.079)	-0.206** (0.082)
Opposition Seats (%) × Post-2017			-0.264* (0.144)					
Opposition Seats > 25% × Post-2017				-0.135** (0.066)				
Opposition Seats > 50% × Post-2017					-0.186** (0.091)			
Opposition Seats > 75% × Post-2017						-0.146*** (0.043)		
Opposition-Minority Council × Post-2017							0.036 (0.065)	
Municipal Population (log)	0.844 (0.800)		0.799 (0.800)	0.781 (0.801)	0.842 (0.800)	0.854 (0.800)	0.893 (0.807)	0.883 (0.802)
Num. Council Members (log)	0.026 (0.238)		0.090 (0.241)	0.090 (0.243)	0.037 (0.239)	0.021 (0.240)	-0.017 (0.250)	-0.013 (0.238)
Vote Percentage	0.016 (0.199)		-0.032 (0.202)	-0.030 (0.207)	0.019 (0.199)	0.035 (0.199)	0.038 (0.199)	-0.026 (0.198)
Council Head	0.222 (0.146)		0.229 (0.146)	0.238 (0.145)	0.224 (0.146)	0.238 (0.146)	0.218 (0.145)	0.202 (0.140)
Total Assets (lhs)	0.073 (0.050)		0.073 (0.050)	0.071 (0.050)	0.073 (0.050)	0.072 (0.050)	0.073 (0.050)	0.080 (0.051)
Married	-0.087 (0.060)		-0.089 (0.060)	-0.092 (0.060)	-0.087 (0.060)	-0.086 (0.061)	-0.087 (0.061)	-0.087 (0.061)
Num. Children	0.089 (0.077)		0.091 (0.077)	0.095 (0.077)	0.089 (0.077)	0.086 (0.076)	0.088 (0.077)	0.092 (0.077)
R ²	0.757	0.753	0.757	0.757	0.757	0.757	0.757	0.757
Observations	2,064	2,069	2,064	2,064	2,064	2,064	2,064	2,011
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 four municipalities which had majority control by the opposition beginning in 2017. Standard errors are clustered at the deputy level.

Robustness Checks: Mechanisms

TABLE A5: OPPOSITION CONTROL AND MUNICIPAL BUDGETS

	Tax Revenue (log) (1)	Tax Revenue (%) (2)	All (lhs) (3)	Information (lhs) (4)
Opposition-Held Council \times Post-2017	0.061*** (0.020)	-0.009 (0.016)	-0.192* (0.108)	-0.346** (0.143)
Municipal Population (log)	0.081 (0.065)	-0.150* (0.077)	-0.235 (0.400)	0.070 (0.288)
Num. Council Members	0.011* (0.007)	-0.004 (0.005)	0.103*** (0.033)	0.043 (0.041)
Expenditures (log)				-0.396** (0.190)
R ²	0.678	0.859	0.710	0.614
Observations	1,227	1,227	1,266	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 at the municipality-year level. Columns 1-3 analyze municipal revenue, expenditures, and deficit (the difference between the two), respectively. Columns 4-6 analyze the percentage of expenditures devoted to government administration, culture, and social transfers, respectively. Standard errors are clustered at the municipality level.

TABLE A6: OPPOSITION OVERSIGHT OVER PROCUREMENT: DEMOGRAPHIC CONTROLS

	Auction Held		Anomaly Found	
	% of Contracts, Num. (1)	% of Contracts, Vol. (2)	% of Contracts, Num. (3)	% of Contracts, Vol. (4)
Opposition-Held Council × Post-2017	0.107*** (0.037)	0.157*** (0.044)	-0.038 (0.069)	-0.029 (0.067)
Municipal Population (log)	-0.052 (0.078)	-0.020 (0.077)	0.186* (0.112)	0.339*** (0.093)
Num. Council Members	-0.011 (0.016)	-0.019 (0.017)	-0.062** (0.026)	-0.063** (0.026)
Contract Volume (log)	0.019* (0.010)	0.002 (0.011)	-0.016 (0.015)	-0.012 (0.016)
Expenditures (log)	-0.041 (0.033)	-0.0002 (0.034)	0.074* (0.039)	0.052 (0.046)
Age, mean (%)	0.006** (0.002)	0.007*** (0.003)	0.002 (0.005)	0.003 (0.005)
College-Educated, mean (%)	0.439 (0.286)	0.506* (0.288)	-0.110 (0.493)	-0.397 (0.448)
Professional, mean (%)	0.016 (0.015)	0.018 (0.015)	0.036 (0.026)	0.036 (0.026)
Company Director, mean (%)	0.011 (0.009)	0.016 (0.012)	0.044** (0.019)	0.048** (0.020)
Civil Society, mean (%)	-0.002 (0.010)	0.006 (0.011)	0.051** (0.020)	0.056*** (0.021)
Female, mean (%)	0.009 (0.006)	0.006 (0.006)	0.013 (0.010)	0.015 (0.011)
Health Care, mean (%)	-0.002 (0.012)	0.005 (0.014)	0.014 (0.024)	0.016 (0.025)
Education, mean (%)	-0.005 (0.011)	0.005 (0.013)	0.017 (0.020)	0.015 (0.020)
State Sector, mean (%)	0.009 (0.010)	0.015 (0.012)	0.056*** (0.017)	0.055*** (0.019)
R ²	0.448	0.427	0.417	0.380
Observations	1,173	1,173	1,173	1,173
Municipality fixed effects	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓

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

TABLE A7: OPPOSITION BUDGETS: DEMOGRAPHIC CONTROLS

	Revenue (log) (1)	Expenditures (log) (2)	Surplus (3)	Admin. Exp. (%) (4)
Opposition-Held Council × Post-2017	0.051 (0.039)	-0.059 (0.050)	2,596.5*** (808.7)	-0.003 (0.012)
Municipal Population (log)	0.483*** (0.121)	0.577** (0.231)	-2,946.5 (3,525.7)	-0.058 (0.049)
Num. Council Members	-0.007 (0.014)	-0.022 (0.016)	554.2* (289.2)	0.004 (0.004)
Age, mean (%)	0.001 (0.002)	0.004 (0.003)	-42.7 (55.5)	0.0002 (0.0007)
College-Educated, mean (%)	0.391* (0.210)	0.427 (0.277)	-725.8 (4,459.5)	-0.031 (0.081)
Professional, mean (%)	0.030** (0.015)	0.041** (0.016)	-374.3 (296.7)	-0.005 (0.004)
Company Director, mean (%)	0.018 (0.011)	0.028** (0.014)	-303.6 (237.6)	0.002 (0.003)
Civil Society, mean (%)	0.007 (0.011)	0.007 (0.013)	-81.3 (179.5)	-0.006 (0.004)
Female, mean (%)	-0.002 (0.008)	-0.003 (0.009)	-127.3 (151.1)	0.003 (0.003)
Health Care, mean (%)	0.001 (0.013)	0.003 (0.016)	48.0 (290.3)	-0.005 (0.005)
Education, mean (%)	0.011 (0.012)	0.010 (0.013)	-42.7 (200.9)	-0.0005 (0.003)
State Sector, mean (%)	0.014 (0.010)	0.027** (0.011)	-369.7** (182.7)	-0.0004 (0.003)
Expenditures (log)				-0.160*** (0.014)
R ²	0.809	0.828	0.213	0.762
Observations	1,230	1,227	1,227	1,096
Municipality fixed effects	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1 This table analyzes outcomes related to budgets at the municipality-year level. Columns 1-3 analyze municipal revenue, expenditures, and deficit (the difference between the two), respectively. Columns 4-6 analyze the percentage of expenditures devoted to government administration, culture, and social transfers, respectively. Standard errors are clustered at the municipality level.

TABLE A8: 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	0.061*** (0.020)	-0.009 (0.016)	0.007 (0.011)	-0.192* (0.108)	-0.346** (0.143)	0.043 (0.155)	-0.273 (0.175)
Municipal Population (log)	0.081 (0.065)	-0.150* (0.077)	-0.113*** (0.021)	-0.235 (0.400)	0.070 (0.288)	-0.369 (0.312)	-0.621* (0.351)
Num. Council Members	0.011* (0.007)	-0.004 (0.005)	0.003 (0.003)	0.103*** (0.033)	0.043 (0.041)	0.050 (0.043)	0.123** (0.054)
Expenditures (log)					-0.396** (0.190)	-0.310* (0.180)	-0.027 (0.197)
R ²	0.678	0.859	0.702	0.710	0.614	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. 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 A9: SYSTEMIC VERSUS NON-SYSTEMIC OPPOSITION

	Deputy Income (log)		
	(1)	(2)	(3)
Opposition-Held Council × Post-2017	-0.211*** (0.077)		
Non-systemic Opposition-Held Council × Post-2017		-0.221** (0.086)	-0.222** (0.086)
Post-2017 × Systemic Opposition-Held Council			-0.150 (0.116)
Municipal Population (log)	0.844 (0.800)	0.848 (0.800)	0.845 (0.800)
Num. Council Members (log)	0.026 (0.238)	0.020 (0.238)	0.024 (0.238)
Vote Percentage	0.016 (0.199)	0.014 (0.199)	0.015 (0.199)
Council Head	0.222 (0.146)	0.222 (0.146)	0.221 (0.146)
Total Assets (lhs)	0.073 (0.050)	0.073 (0.050)	0.073 (0.050)
Married	-0.087 (0.060)	-0.086 (0.060)	-0.087 (0.060)
Num. Children	0.089 (0.077)	0.089 (0.077)	0.089 (0.077)
R ²	0.757	0.757	0.757
Observations	2,064	2,064	2,064
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 at the deputy level.

8 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 A10 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.⁴³ 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 #2 (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.

⁴³The 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 A10. 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 A10: 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)	<p>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</p> <p>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</p>	
Cooperation With Authorities (Randomized)	No extra information given.	<p>1, "Control") No extra information given.</p> <p>1, "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.</p> <p>3, "Protested System") The independent candidate has in the past criticized the Russian election system and never run for office before.</p>

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 A11: SURVEY EXPERIMENT RESULTS

	Candidate Preferred				
	United Russia (1)	Independent (2)	Neither (3)	Ordinal Ranking (4) (5)	
Constant	0.044 (0.130)	0.263*** (0.093)	0.693*** (0.138)	1.90*** (0.031)	2.22*** (0.179)
Male	-0.054** (0.022)	0.027 (0.026)	0.028 (0.026)		0.081** (0.040)
Age (log)	0.031 (0.029)	-0.052** (0.024)	0.021 (0.029)		-0.083* (0.045)
Education Level	-0.016** (0.007)	0.014 (0.009)	0.002 (0.011)		0.030** (0.012)
Employed	0.0007 (0.020)	0.008 (0.024)	-0.008 (0.022)		0.007 (0.038)
Economic Situation	0.011 (0.009)	0.008 (0.008)	-0.018** (0.009)		-0.003 (0.015)
City Size	-0.015* (0.008)	-0.007 (0.010)	0.022* (0.011)		0.008 (0.016)
Political Interest	0.041*** (0.011)	0.031** (0.012)	-0.072*** (0.015)		-0.010 (0.017)
Putin Supporter	0.242*** (0.020)	-0.062** (0.025)	-0.180*** (0.028)		-0.304*** (0.036)
Treatment: Collaborated	-0.059*** (0.020)	0.049** (0.020)	0.010 (0.025)	0.107*** (0.032)	0.108*** (0.031)
Treatment: Protested System	0.010 (0.026)	-0.003 (0.020)	-0.007 (0.026)	-0.033 (0.040)	-0.014 (0.039)
Treatment: State Intervention	-0.040* (0.023)	0.056*** (0.019)	-0.017 (0.024)	0.096** (0.037)	0.096*** (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 A10. 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.