POLITICIANS, PARTIES, AND TENURE: HOW PUBLIC PROCUREMENTS ARE AFFECTED IN TURKEY ON MUNICIPALITY LEVEL

MUSTAFA CANER KILIÇ

BOĞAZİÇİ UNIVERSITY

2024

POLITICIANS, PARTIES, AND TENURE: HOW PUBLIC PROCUREMENTS ARE AFFECTED IN TURKEY ON MUNICIPALITY LEVEL

Thesis submitted to the
Institute for Graduate Studies in Social Sciences
in partial fulfillment of the requirements for the degree of

Master of Arts
in
Economics

by
Mustafa Caner Kılıç

Boğaziçi University
2024

Politicians, Parties, and Tenure: How Public Procurements are Affected in Turkey on Municipality Level

The thesis of Mustafa Caner Kılıç

has been approved by:

Assoc. Prof. Murat Koyuncu _____
(Thesis Advisor)

Assoc. Prof. Bekir Burçay Erus _____

Assist. Prof. Fatih Serkant Adıgüzel _____
(External Member)

July 2024

DECLARATION OF ORIGINALITY

I, Mustafa Caner Kılıç, certify that

- I am the sole author of this thesis and that I have fully acknowledged and documented in my thesis all sources of ideas and words, including digital resources, which have been produced or published by another person or institution;
- this thesis contains no material that has been submitted or accepted for a degree or diploma in any other educational institution;
- this is a true copy of the thesis approved by my advisor and thesis committee at Boğaziçi University, including final revisions required by them.

Signature: . . . . . .

Date: . . . . . .

ABSTRACT

Politicians, Parties, and Tenure: How Public Procurements are Affected in Turkey on Municipality Level

This research uses the Difference-in-Differences method to study the impact of a ruling party change in a metropolitan municipality on procurements. Municipalities with a change in the ruling party were compared with the others according to the procurement contract data from Turkey. Results show that cities with newly elected mayors perform better than others in most parameters. They use competitive and transparent methods more, and additionally make more savings. Little to no differences were found in mechanisms that have been previously associated with abuse of power, but abuse may not be the case in the period that has been inspected in this thesis. Overall, it can be said that the ruling party change resulted in better outcomes in the matter of procurements.

ÖZET

Siyasetçiler, Partiler, Görev Süreleri: Türkiye'de Belediye Düzeyinde Kamu İhaleleri Nasıl Etkileniyor?

Bu araştırmada, Farkların Farkı (Difference-in-Differences) yöntemi kullanılarak büyükşehir belediyelerini yöneten partinin değişmesinin ihalelere etkisi inceleniyor. Yöneten partinin değiştiği belediyelerle diğer belediyeler ihale verisi kullanılarak karşılaştırılıyor. Sonuçlara göre yeni seçilen belediye başkanları diğerlerine göre çoğu parametrede daha iyi performans gösteriyor. Bu başkanlar diğerlerine göre daha çok mücadeleci ve şeffaf ihale yöntemleri kullanırken, tasarrufu da arttırıyor. Daha önce güç istismarıyla ilişkilendirilmiş mekanizmalarda neredeyse hiç değişiklik gözlenmiyor, ancak bu tezde incelenen dönemde istismar amaçlı kullanılmamış olabilirler. Genel olarak belediyeyi yöneten partinin değişiminin daha iyi çıktılar ortaya koyduğu söylenebilir.

ACKNOWLEDGMENTS

First, I want to express my gratefulness to Assoc. Prof. Murat Koyuncu, my advisor. He guided and supported me through this journey, and I enjoyed every second of working with him. I also would like to thank my jury members, Assoc. Prof. Bekir Burçay Erus and Assist. Prof. Serkant Adıgüzel for their invaluable feedback.

I could not be writing these letters without the love and support I had from my family. They have encouraged me to take the next step ever since I was a kid, and I know that their unlimited love and support will always be with me in the upcoming years of my education and beyond.

I want to thank my precious cohort. We supported each other in the last three years, and I could not wish for better classmates and companions than you. I want to thank my friends outside of the cohort. I managed to enjoy my life and keep a healthy work-life balance thanks to them. They were with me when I was sad and when I was happy.

I thank The Scientific and Technological Research Council of Turkey (TÜBİTAK) for their financial support via scholarship during my master's education.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION 1
CHAPTER 2: LITERATURE REVIEW 2
2.1 Political power shift 3
2.2 Electoral competition 5
CHAPTER 3: BACKGROUND 7
3.1 Political environment 7
3.2 Public procurement law in Turkey 8
CHAPTER 4: DATA 10
4.1 About the dataset 10
4.2 Forming the dataset 12
CHAPTER 5: METHODOLOGY 13
5.1 Outcome variables 13
5.2 Empirical approach 13
CHAPTER 6: RESULTS 15
6.1 Difference-in-Differences results 15
6.2 Regression Discontinuity in Time results 20
CHAPTER 7: ALTERNATIVE MECHANISMS AND ROBUSTNESS TESTS . . 24
7.1 Checking for electoral competition 24
7.2 Checking for party effect 25
7.3 DiD estimations with various sample sizes 25
7.4 Alternative RDiT estimations 27
CHAPTER 8: CONCLUSION 30
REFERENCES 31

LIST OF TABLES

Table 1. Weights of Selected Variables from SEGE 11
Table 2. Characteristics of Municipality Groups 11
Table 3. DiD Estimation of the Share of Contracting Methods 17
Table 4. DiD Estimation of the Price Share of Contracting Methods and Rebate . . 19
Table 5. RDiT Estimation of the Share of Contracting Methods 21
Table 6. RDiT Estimation of the Price Share of Contracting Methods and Rebate 23
Table 7. DiD Estimation Relative to the Municipalities with Electoral Competition but without Mayor Change 24
Table 8. RDiT Estimation for the Municipalities with Electoral Competition but without Mayor Change 24
Table 9. RDiT Estimation for the Cities Ruled by RPP Before and After the Elections 25
Table 10. DiD Estimation of the Share of Contracting Methods Using Price-Trimmed Data 26
Table 11. DiD Estimation of the Share of Contracting Methods Using Rebate-Trimmed Data 26
Table 12. DiD Estimation of the Price Share of Contracting Methods Using Rebate-Trimmed Data 27
Table 13. RDiT Estimation of the Share of Contracting Methods 27
Table 14. RDiT Estimation of the Price Share of Contracting Methods and Rebate 28
Table 15. RDiT Estimation of the Share of Contracting Methods 28
Table 16. RDiT Estimation of the Price Share of Contracting Methods and Rebate 28
Table 17. RDiT Estimation of the Share of Contracting Methods 29
Table 18. RDiT Estimation of the Price Share of Contracting Methods and Rebate 29

LIST OF FIGURES

Figure 1. Relative sealed-bid auction use rate before and after the 2019 Elections 16
Figure 2. Relative unforeseen event clause use rate before and after the 2019 Elections 16
Figure 3. Relative sealed-bid auction price share before and after the 2019 Elections 18
Figure 4. Relative unforeseen event clause price share before and after the 2019 Elections 18
Figure 5. Relative rebate values before and after the 2019 Elections 19
Figure 6. RD Plots for the change in the share of sealed-bid auctions for the treatment and the control groups. 20
Figure 7. RD Plots for the change in the share of unforeseen event clause for the treatment and the control groups. 21
Figure 8. RD Plots for the change in the sealed-bid auction price share for the treatment and the control groups. 22
Figure 9. RD Plots for the change in the unforeseen event clause price share for the treatment and the control groups. 22
Figure 10. RD Plots for the change in the rebate values for the treatment and the control groups. 23

CHAPTER 1

INTRODUCTION

In Turkey, more than 90% of the population lives in cities. The largest metropolitans have millions of residents and massive economic power. According to the Turkish Statistical Institute, Istanbul, the largest city, had a population of nearly 16 million in 2021. This would place Istanbul around 75th place among the country population rankings. In the same year, Istanbul's GDP was estimated at around US$ 245 million, nearly the same as Portugal's at that time, according to the World Bank. Mayors of these large cities govern large budgets. In Turkey, around 30% of the total procurement expenditures were made by municipalities between 2011 and 2022 (Republic of Turkey Public Procurement Authority, 2023).

In this study, the impact of a change in the ruling party of a metropolitan municipality on public procurements is analyzed. The procurement contract data is merged with the election and city demographics data to establish the dataset. Using the Difference-in-Differences (DiD) method and Regression Discontinuity in Time (RDiT) estimation, cities with a change in the ruling party and the other cities are compared before and after the 2019 Local Elections. Estimations show that in three out of the five outcome variables analyzed, cities with new ruling parties performed better in terms of public welfare.

Relevant works from the literature are given in Chapter 2. Chapter 3 gives information about the background of this study. In Chapter 4, the data used for this study is explained. The empirical methodology is described in Chapter 5. Chapter 6 displays the results of the analysis before the alternative mechanisms and robustness tests are demonstrated in Chapter 7. The thesis is concluded in Chapter 8.

CHAPTER 2

LITERATURE REVIEW

Numerous studies have been conducted about favoritism and corruption in public procurement for Turkey (Demircioğlu, 2014; Emek & Acar, 2015; Ayhan & Üstüner, 2015; Gürakar, 2016; Gürakar & Meyersson, 2016; Yıldırım, 2018). These papers demonstrate that after the introduction of the new Public Procurement Law in 2002, the Justice and Development Party government altered the law repeatedly to provide more discretion to the administrative bodies. These alterations are likely to result in the abuse of power and corruption in procurements. In this thesis, all municipalities analyzed were ruled by the JDP or their ally, the NMP. It relates to the studies on procurement corruption of the government in that sense.

Papers about favoritism in procurement for different countries can also be found (Baltrunaite, 2020; Duchin & Sosyura, 2012; Podumljak & David-Barrett, 2015; Lerusse & Van de Walle, 2022; Baranek & Titl, 2021; Titl & Baranek, n.d.; Titl et al. 2021). These studies show that favoritism in corruption is a global issue. It can be observed on different continents. Additionally, there are papers that connect favoritism and elections. In many cases, the firms that made donations or investments in candidates or parties experienced returns after the elections (Cooper et al., 2010; Arvate et al., 2013; Boas et al., 2014; Claessens et al., 2008; Titl & Geys, 2019). These papers mainly focus solely on the presence of elections. They do not analyze political power changes especially, but they are still related to this thesis and valuable in gaining insight.

This thesis primarily relates to studies about the consequence of political power shifts on procurements, both at local and central levels (Schoenherr, 2019; Coviello & Gagliarducci, 2017; Goldman et al., 2013; Wolman et al., 1996; David-Barret & Fazekas, 2020; Straub, 2014; Mullard & Swaray, 2006; Alt et al., 2011; de Benedictis-Kessner & Warshaw, 2016; Falcon-Cortes et al., 2022). In these papers, procuring bodies change their procurement and spending behaviors after the political changes. Generally, the change happens in terms of favoritism, as some new

rulers start to provide rent to their connected firms instead of old rulers' connections. However, some find that newly elected administrators perform better than their predecessors, or increasing tenure leads to worse procurement outcomes. Integrating these papers with the studies about favoritism in Turkey under the JDP rule, this thesis defends the argument that the newly elected mayors are expected to perform better than the previous ones and attempts to provide empirical evidence in this direction.

Combining the studies about the political shift with the studies about the impact of electoral competition on procurement (Broms et al., 2019; Pilz, 2020; Fang et al., 2022; Adıgüzel et al., 2022; Ferreira & Gyourko, 2009) strengthens the argument of this thesis. The existence of electoral competition was found to improve procurement results and reduce corruption. Observations about the outcomes of electoral competition can also be found in the papers cited about the political power shift. This thesis contributes to the studies on electoral competition by displaying the consequences of electoral competition on procurement outcomes.

Finally, this thesis relates to the literature on political cycles and public procurement (Havlik et al., 2021; Chong et al., 2014; Marx, 2018; Philips, 2016; Veiga & Veiga, 2007; Fazekas & Wachs, 2020). These studies observe changes in procurement and spending behaviors around the election periods, which also relates to the observations in this thesis. In some of these studies, public spending increases before the elections, and increases in some others. Breaking out of routine spending is common for all papers.

Some of these papers are expanded in the following sections.

2.1 Political power shift

Goldman et al. (2013) compare the periods before and after the 1994 Midterm Elections in the USA. In this election, Democrats lost the majority of the House of Representatives and Senate to Republicans. By conducting multivariate analyses, they observe that after the power shift, firms with connections to Republicans enjoyed

a rise in procurement contract value, while firms with Democratic Party connections experienced a fall. A firm was defined as politically connected if any of the board members was also a party member.

Schoenherr (2019) demonstrates the effect of political power change in South Korea. According to that paper, South Korea's new president after the 2007 election, appointed people close to him as CEOs of state-owned firms. Thereafter, relative to the other firms, firms connected to the president had a greater increase in the portion of procurement contracts allocated. Contracts awarded by the state firms with newly appointed CEOs, who are from the same network as the private firms' CEOs, caused this increase.

In their paper about corruption and political power shift, David-Barret and Fazekas (2020) investigate the cases in Hungary and the United Kingdom, two countries that had general elections around May 2010. Applying the generalized method of moments estimation, they find that in Hungary, companies without contracting experience before the elections controlled around 50-60% of the market after. Tenders of these companies displayed corruption risks, and these firms are labeled as politically favored by the authors. They find that the market control share is around 10% for the same type of companies in the UK.

Straub (2014) analyzes the change in procurement outcomes in Paraguay after the defeat of the 61-year-old rule of the Paraguayan Colorado Party in 2008. According to this paper, private firms with the closest relations to the defeated party experienced a decrease in the amount of contracts awarded after the election. An increase in contract efficiency was also observed during this period. Competitive contracting methods were used more often than before.

Mullard and Swaray (2006) compare the public expenditure behaviors of the governments of Thatcher and Blair, leaders of parties from the United Kingdom with different ideologies. They then generalize this comparison to compare the two parties instead of the two leaders. They show that the Conservative Party governments increase law and order and defense spending, while the Labour Party governments

spend more on education, environment, housing, and health. In a similar study, Wolman et al. (1996) demonstrate that in the US, between 1974 and 1985, newly elected mayors made more public policy spending than reelected mayors. A similar analysis was made by de Benedictis-Kessner and Warshaw (2016). They show that mayors from the Democratic Party spend more than Republican mayors. Increased spending on public policy can be observed when the total spending is decomposed into various spending areas.

Falcon-Cortes et al. (2022) document the change in public procurement outcomes after the government change in 2018 in Mexico. They find that after pledging to prevent corruption, the new government allocated fewer public resources to private firms that exhibited corruption during the rule of the previous government.

Coviello and Gagliarducci (2017) do not analyze the consequences of a political power change, but they analyze the cases when there is no change. Using data from Italian municipalities and implementing regression discontinuity design and instrumental variable approach, they find that with increasing tenure, procurement contract costs increase, and the same firms are repeatedly awarded contracts. They argue that government officers and private firms start colluding over time, and they propose setting up term limits to allow power change in governmental bodies.

2.2 Electoral competition

Broms et al. (2019) studied municipalities in Sweden to analyze the impact of electoral competition on public procurements. By combining cross-sectional and panel regressions, they show that between 2009 and 2015, procurement practices without competition were more prevalent when single-party reign was observed. They also find that these practices decline when a new party governs a municipality.

Pilz (2020) uses Hungarian public procurement contract data from 2010 to 2019 to evaluate the effect of political competition on procurement contracts. Using logistic regression, Pilz finds that mayors and parties with multiple terms in office are

more liable to award contracts linked with corruption relative to mayors and parties in their initial terms. Also, mayors from the ruling party have been found to have poorer procurement performance than others. Pilz does not find any link between the closeness of election results and corruption.

The results of the study from Ferreira and Gyourko (2009) do not support the main hypothesis of this thesis. Using data from the US, they compare the cities in which the Democratic Party barely won and barely lost the elections, using regression discontinuity design. They find no difference between the cities with mayors from different parties in terms of public expenditure. Their work may indicate that being in a politically competitive environment forces mayors to perform according to public demand regardless of their ideology.

This thesis is profoundly inspired by the study of Adiguzel et al. (2022). In this paper, they compare the public procurement outcomes of government-appointed mayors and elected mayors. Using a staggered difference-in-differences approach and regression discontinuity design, they find that appointed mayors use noncompetitive contracting methods more than the elected ones. They use loopholes in the Public Procurement Law to avoid competition in procurement, and they use funds inefficiently.

CHAPTER 3

BACKGROUND

3.1 Political environment

There are 81 provinces in Turkey. Out of these, 30 are established as metropolitan municipalities. According to the Metropolitan Municipalities Law enacted in 2004, these municipalities operate in every district in their provinces, while other province municipalities only operate in the central district of their provinces. This study was made only on metropolitans to have the same functional scope for each municipality. In 2019, incumbent parties lost the local elections in five metropolitan municipalities (Adana, Ankara, Antalya, Istanbul, and Mersin) in Turkey. The two largest cities, Istanbul and Ankara, have been won by the Republican People's Party (RPP) after the 25-year rule of the Justice and Development Party (JDP) and their predecessors. These five cities were among the 11 most populous cities. All of these cities were won by the RPP and previously governed by the JDP or their partner from the People's Alliance (PA), the Nationalist Movement Party (NMP). Some of the municipalities that remained under PA rule had their mayors changed, but this study examines the effect of the ruling party change. Throughout this thesis, these five provinces with party change will be referred to as municipalities with a mayor change.

The JDP was the sole ruling party in Turkey from 2002 to 2018, and it has been ruling with the NMP under the name of PA since then. The RPP has been the main opposition throughout this period. These victories in the local elections were considered an opportunity for the RPP to prove themselves as capable rulers before the upcoming general elections. After the local elections, mayors of Istanbul and Ankara were regarded among the strongest candidates to oppose the incumbent president in the next general elections. Therefore, it can be said that the newly elected mayors had other incentives to perform better than the previous ones in addition to their desires to be elected for another term.

Before the 2019 elections, the RPP candidates' main argument against the incumbent PA mayors was the inefficient use of public funds. According to the yearly records of the Turkish Court of Accounts, procurement expenditures make up nearly one-third of the total expenditures of the metropolitan municipalities. They are generally the largest or second-largest expenditures of the municipalities.

Three metropolitan municipalities (Diyarbakır, Mardin, and Van) were exempted from this study because they were ruled by the trustees appointed by the central government before the elections, and they had their elected mayors removed from their offices shortly after the elections. A study on these municipalities by Adıgüzel et al. (2022) was mentioned in Chapter 2.

3.2 Public procurement law in Turkey

Turkey enacted a new public procurement law in accordance with European Union (EU) regulations in 2002. The complete Public Procurement Law can be found on the Republic of Turkey Public Procurement Authority website at (https://www2.ihale.gov.tr/english/4734_English.pdf). According to Gürakar (2016), the JDP government revised this law multiple times over the course of its rule to make it more apt for exploitation. There are three main procedures for procurement in this law: Open Procedure, Restricted Procedure, and Negotiated Procedure.

Open Procedure, also called sealed-bid auction, is regarded as the most transparent contracting method. In this procedure, any firm can propose their bid, and it is compulsory to allow firms at least 40 days to submit their bids.

Restricted Procedure is carried out when the project in procurement requires specific needs. In this case, only the firms that were found qualified before the procurement process can enter the bidding.

Negotiated Procedure is applied when one of the following six cases surfaces: a) no bids were submitted in other procedures; b) there is an immediate need to buy services due to reasons that cannot be predicted by the contracting bodies, such as natural disasters and epidemics (will be referred as Unforeseen Event Clause

throughout this thesis); c) there is an immediate need to buy services due to defense and security reasons; d) the project requires a research and development process, and will not be mass produced; e) the project has distinguished and complex characteristics, therefore it is not possible to determine precise technical and financial aspects; f) estimated cost of the project is lower than the yearly specified thresholds. This threshold was set as 728072 TL for 2022. In Negotiated Procedure, it is not mandatory to publish a notice and details of the project. Also, the criteria for firm selection are unknown, unlike in Restricted Procedure, where the criteria have to be publicly announced before inviting the firms (Yıldırım, 2018).

Affiliated companies of municipalities generally use exceptional procedures according to multiple sub-articles of Article 3 in Public Procurement Law. They are exempted from the Law except for procurement bans and penalties.

This thesis mainly focuses on contracts awarded through sealed-bid auctions and unforeseen event clause, which make up around 49% and 4% of the total number of contracts awarded through the period analyzed, respectively. As stated before, sealed-bid auctions are considered the most transparent contracting method, and a high rate of its use may indicate less favoritism. Also, due to its highly competitive nature, it may point to efficient usage of municipal funds. It may seem like the unforeseen event clause is not triggered often since it covers a tiny amount compared to sealed-bid auctions. However, Demircioğlu (2014) showed that this clause has been abused frequently to distribute contracts to desired firms.

CHAPTER 4

DATA

4.1 About the dataset

The main dataset contains every single procurement contract awarded in Turkey from January 2011 to December 2022. For the scope of this study, only the municipality-level contracts were kept. During the span of these 11 years, 27 metropolitan municipalities and their affiliate companies distributed more than 160000 contracts. Some of the contract information contained in the dataset can be listed as estimated cost, price, city, administration, contracting method, and approval date.

In addition to the procurement data, Turkey's 2014 and 2019 Local Elections results are also included in the dataset. Using this information, mayor changes can be observed. Yearly population and GDP values for each city are included alongside monthly inflation data. The last addition is the Socio-economic Development Index (SEGE) values for each city. SEGE is calculated by the Republic of Turkey Ministry of Industry and Technology every couple of years. It contains demographic, health, economic, education, and other variables with varying weights. The formula used to calculate SEGE can be found on the Ministry website (https://www.sanayi.gov.tr/merkez-birimi/b94224510b7b/sege/il-sege-raporlari). Some of these variables and their weights are shown in Table 1. The full table contains 52 variables, and it is displayed on the Ministry website. This dataset includes the values from 2017, the last time SEGE was calculated.

Table 1. Weights of Selected Variables from SEGE

Variable Name	Weight
# of Active Internet Banking Customers (Corporate) per 1000 People	0.946
# of Active Internet Banking Customers (Individual) per 1000 People	0.925
Rate of Active Workers Covered by Social Security to Province Population	0.917
GDP Per Capita	0.914
# of Dentists per 10000 People	0.867
Bank Deposit Amount per Capita	0.846
# of Private Cars per 10000 People	0.812
Female Literacy Ratio	0.811
Residential Electricity Consumption per Capita	0.793
Rate of Working-Age Population to Province Population	0.779
Rate of Higher Education Graduates to the Population Aged 22 and Older	0.734
Average Daily Earnings for Women	0.622
Share of Manufacturing Industry Workplaces in Turkey	0.621
Population Density	0.556
Net Migration Rate	0.521
Average Daily Earnings	0.507
Urbanization Rate	0.464
Labor Force Participation Rate	0.395
# of Hospital Beds per 100000 People	0.312
Unemployment Rate	-0.235

Notes: Weights of some of the variables forming SEGE are presented in this table. The full table can be found on the Republic of Turkey Ministry of Industry and Technology website.

Characteristics of cities with and without a mayor change in 2019 are given in Table 2. The second group contains considerably more cities, but the number of contracts awarded are more balanced between the two groups.

Table 2. Characteristics of Municipality Groups

Variable	Change	No Change
GDP (mean)	171,106,666	28,613,965
GDP (total)	855,533,331	629,507,230
Population (mean)	5,488,764.78	1,500,625.65
Population (total)	27,443,823.9	33,013,764.3
SEGE Value (mean)	1.8354	0.503
# of Cities	5	22
# of Contracts	21353	32382
Total Contract Value	27,428,183,763	35,764,766,606
Avg. Contract Value	1,284,511.95	1,104,464.41

Notes: Characteristics of two municipality types are displayed in this table. The first column contains values from the cities that had a mayor change in 2019, and the second column contains values from other cities. GDP and contract values are shown in real Turkish Lira prices.

4.2 Forming the dataset

The procurement data is publicly available on the Turkish Public Procurement Authority website and was collected by web scraping. Election results were fetched from the Supreme Election Council website and added to the dataset. Population and GDP values for cities were acquired from the Turkish Statistical Institute, and the SEGE values for cities were obtained from the Ministry of Industry and Technology website. Inflation data was acquired from the Central Bank of the Republic of Turkey website. These separate datasets were then merged to form the main dataset used for analyses.

CHAPTER 5

METHODOLOGY

5.1 Outcome variables

Five outcomes are analyzed in this study. The first two are the shares of the number of contracts awarded through sealed-bid auction and unforeseen event clause. The next two outcomes are the share of contract prices for the same two contracting procedures. One can observe a decrease in the number of contracts for a method, but some contracts may be so large in price that it increases that method's price share. In order to capture the actual share of the methods, examining the price shares is useful. The last outcome is the rebate values of contracts. Each contract has an estimated cost determined before the auction day, and each contract has a final contract price. The rebate value indicates the deviation of the contract price from the estimated cost. It is calculated by the following equation:

$$E = \text{Estimated Cost} \qquad \text{Rebate Value} = \frac{E - P}{E}$$

$$P = \text{Contract Price}$$

A high rebate value means that the procuring authority paid less than they accepted before the auction. In the context of this thesis, a high rebate value in a contract means that the municipality has more funds to spend elsewhere, such as public service, and this is good for the citizens.

5.2 Empirical approach

In this thesis, two methods are used for estimation: Difference-in-Differences and Regression Discontinuity Design.

In Difference-in-Differences (DiD), the cities with the ruling party change form the treatment group, and the cities without change are the control group. Two-year periods for each side of the 2019 elections are contained in the evaluation. Contract behaviors are observed in monthly periods. The election date, 31 March

2019, is the treatment date. Parallel trends were observed through pre-tests and event study graphs. Estimations were made with and without covariates. Socio-economic Development Index (SEGE) values for each city were used as covariates. As shown in the previous chapters, cities in treatment and control groups are different in characteristics. Therefore, it is useful to include SEGE in the estimation to eliminate the consequences caused by this difference and have more accurate results.

In Regression Discontinuity Design, more precisely, Regression Discontinuity in Time (RDiT), treatment and control groups are handled separately. Bandwidth is selected manually as two years to each side of the cutoff date, the same as DiD estimation. Estimations with different bandwidths are displayed in Chapter 7. Outcomes for the two groups are compared to evaluate the possibly different impact of the elections. Comparing different RDiT results works in a somewhat similar way to DiD. This may seem like a weaker estimation since it does not need to satisfy the parallel trends assumption. However, RDiT has its own strengths, such as kernels that give more weight to the observations closer to the cutoff date. Thus, RDiT may be a useful alternative to DiD estimation. For the two groups, if the 95% intervals of the estimates for the same outcome variable do not intersect (i.e., they are separated), it can be said that treatment and control groups were affected differently.

For the estimations about the price changes, the dataset is trimmed by 1% according to the contract price from each side to eliminate the outliers. For rebate value estimation, the dataset was trimmed once again since some contracts were registered to the PPA website without an estimated cost. Reduction in the data size can be seen in the tables in Chapter 6. The estimations made with larger data are also estimated with trimmed data as a robustness test. Their results can be seen in Chapter 7.

CHAPTER 6

RESULTS

This chapter is formed by two sections. First, Difference-in-Differences (DiD) results are displayed; then, Regression Discontinuity in Time (RDiT) results are displayed.

6.1 Difference-in-Differences results

Two kinds of analysis results are shown in this section: The change in the share of contracting procedures in terms of the number of contracts and in terms of the price of contracts. Changes in the rebate value are also displayed in the second part since they concern the price aspect. Each result is demonstrated with and without controls. In the figures, vertical lines around the dots indicate 95% confidence intervals.

The first results are plotted in Figure 1. Figure 1 shows that across the two years before the elections, treatment and control groups had parallel sealed-bid auction usage trends, while after the elections, cities with mayor change started to use sealed-bid auctions relatively more often than before. This plot can be backed by the first two columns of Table 3, which exhibit the Difference-in-Differences estimates with and without controls. It can be seen that, without controls, the treatment group experienced an 18% increase in the rate of contracts with sealed-bid auctions relative to the control group. This difference increases to 33% with the introduction of controls. Both results are statistically significant.

The change in the rate of contracts made through the unforeseen event clause is pictured in Figure 2. The treatment and control groups' trends do not differ much before the elections. After the elections, the two groups are still similar in most periods, but the treatment group experiences an increase in some periods. Column 3 and Column 4 of Table 3 show the DiD regression results. Without controls, there is a statistically significant 3% increase for the treatment group. However, the two groups are not significantly different after the elections when the controls are taken into account.

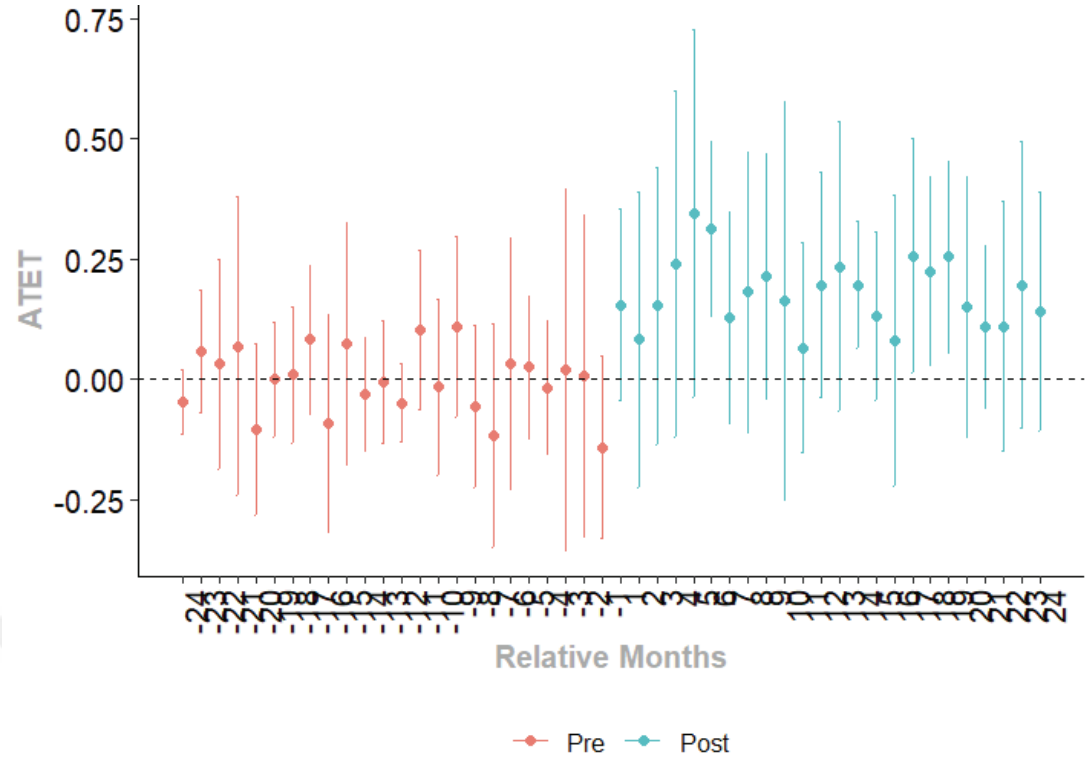


Figure 1. Relative sealed-bid auction use rate before and after the 2019 Elections

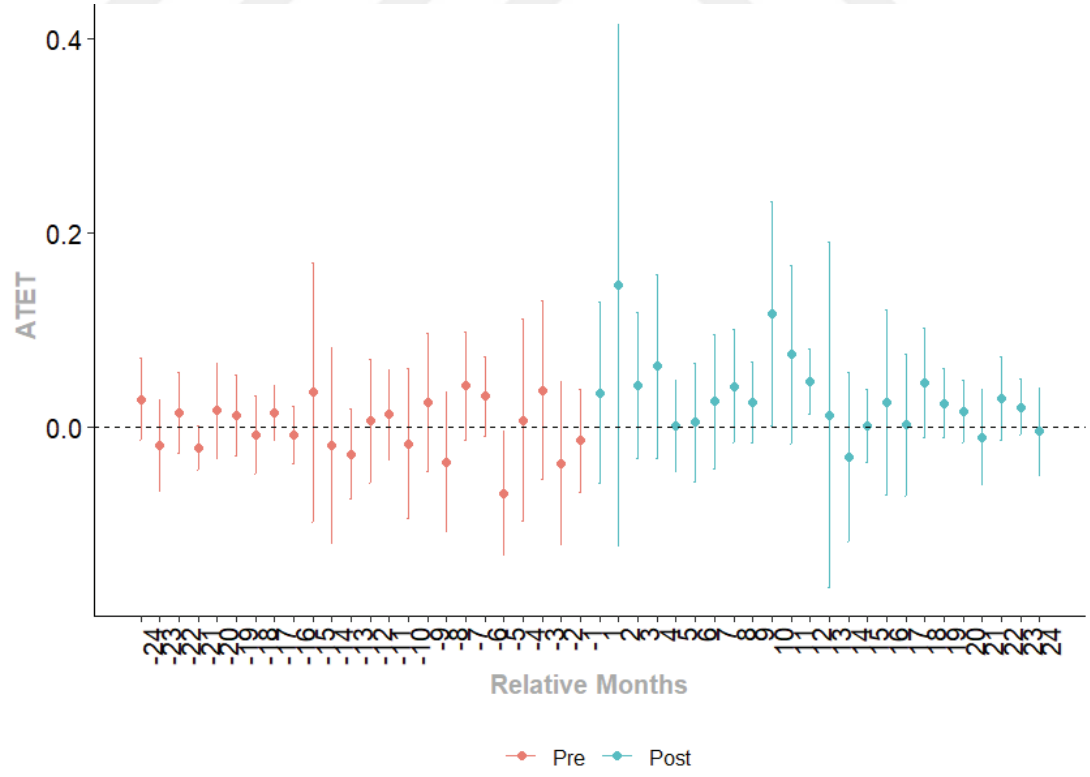


Figure 2. Relative unforeseen event clause use rate before and after the 2019 Elections

Table 3. DiD Estimation of the Share of Contracting Methods

	Sealed-bid auction		Unforeseen event clause	
	(1)	(2)	(3)	(4)
Mayor Change	0.1801	0.3306	0.0313	0.0247
	(0.0818)	(0.0781)	(0.0143)	(0.0219)
Covariates	No	Yes	No	Yes
Observations	53735	53735	53735	53735

Notes: DiD estimation results are presented in this table. Changes in the monthly percentage of the contracting methods are presented above the standard errors written in parentheses. Covariates are the SEGE values for each city.

Figure 3 presents the change in the price share for the sealed-bid auctions. The treatment group experienced an increase in the price share after the elections after having similar trends for most periods before. The first two columns of Table 4 show the results numerically. Both results are statistically significant. The increase is 33% in the absence of controls and 49% with controls. The results are in line with the results from the previous part, and they are greater in magnitude.

The change in the price share for the unforeseen event clause contracts is displayed in Figure 4. In this graph, the two groups generally have similar trends before and after the elections. Regression results displayed in Column 3 and Column 4 of Table 4 give two different outcomes. Without controls, there is a statistically significant increase in the price share. With controls, there is a slight decrease for the treatment group, but it is not statistically significant. These results are also in line with the corresponding results from the previous part. When the controls are not considered, there is an increase; when they are considered, there is not any significant difference.

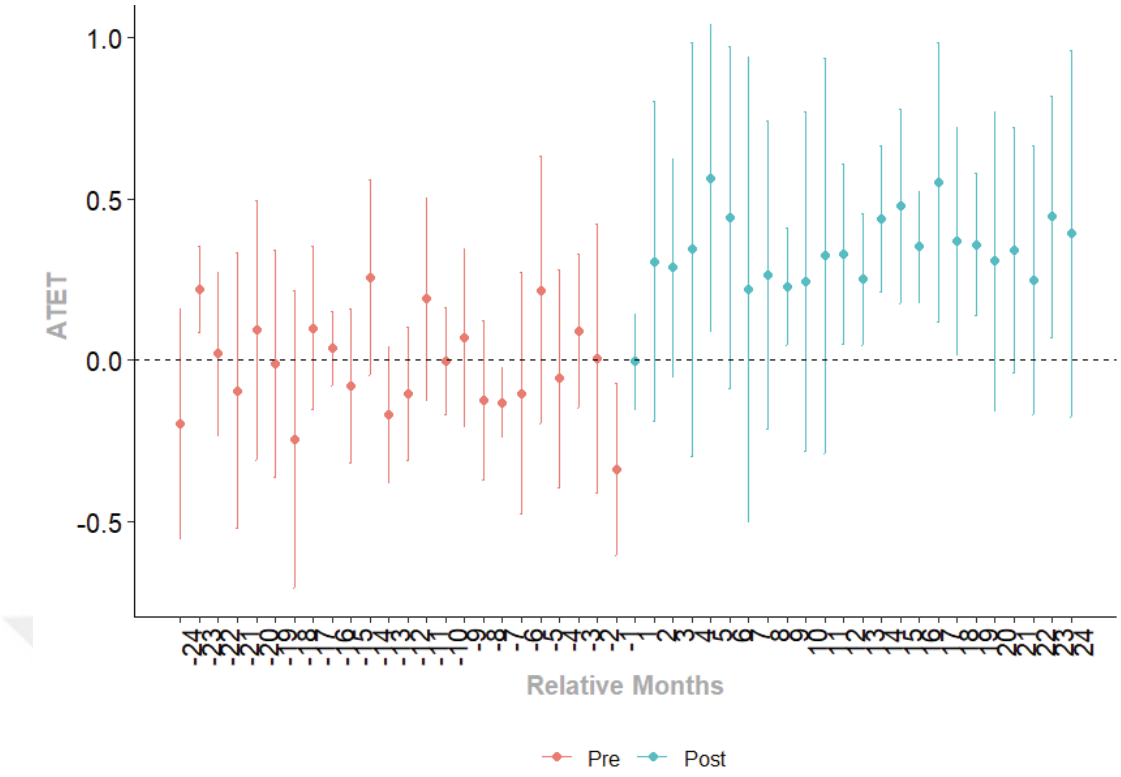


Figure 3. Relative sealed-bid auction price share before and after the 2019 Elections

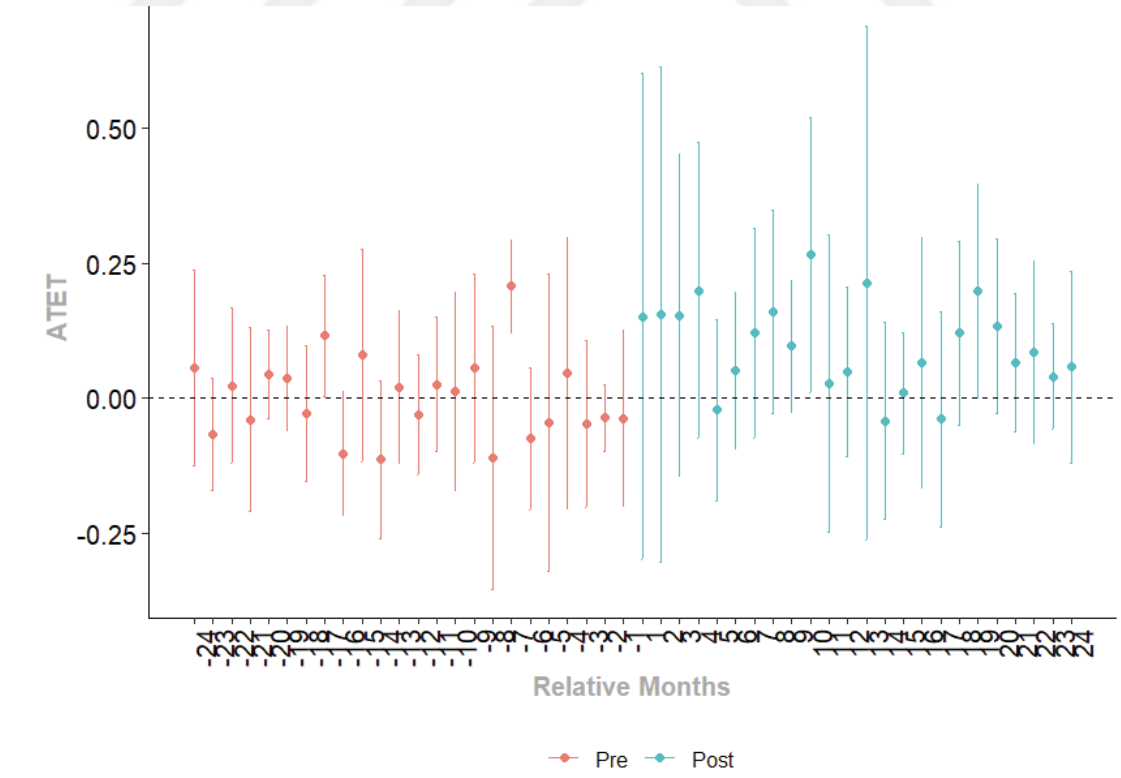


Figure 4. Relative unforeseen event clause price share before and after the 2019 Elections

The change in the rebate values can be seen in Figure 5. There is an increase in the rebate values for the treatment group after having similar trends with the control group before the elections. The last two columns of Table 4 show the DiD estimates. Without controls, there is a statistically significant increase for the treatment group, whilst the difference is not significant after introducing the controls.

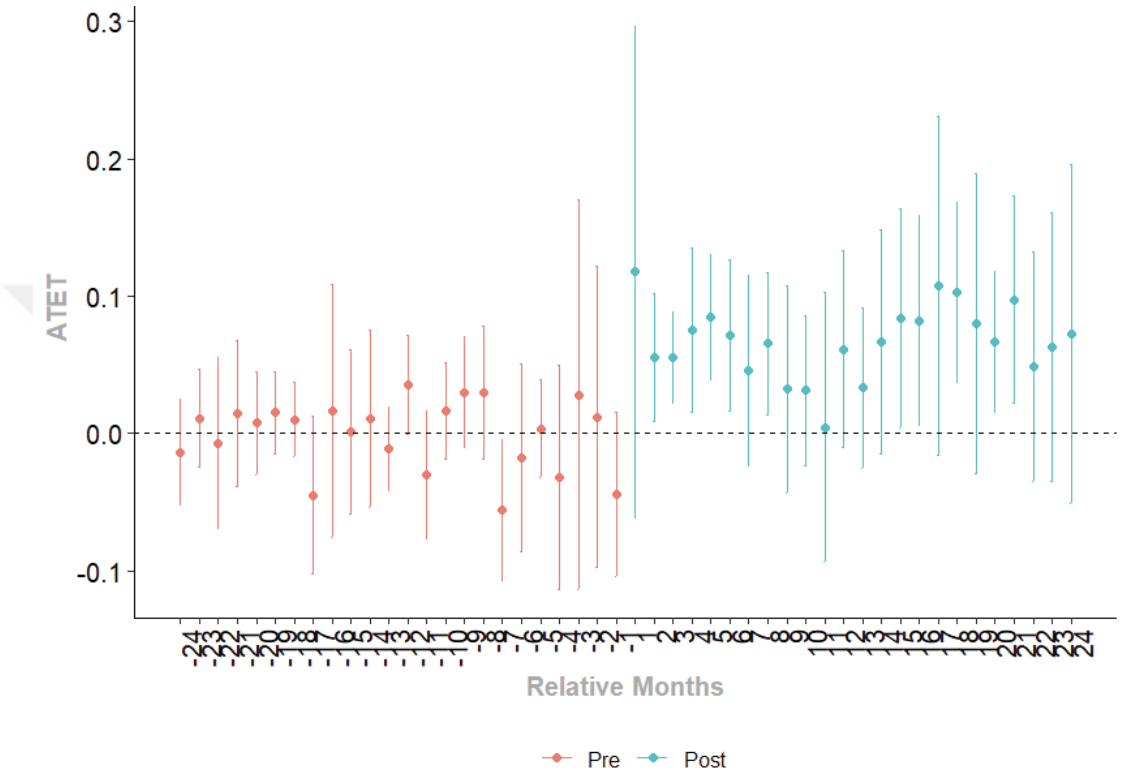


Figure 5. Relative rebate values before and after the 2019 Elections

Table 4. DiD Estimation of the Price Share of Contracting Methods and Rebate

	Sealed-bid auction		Unforeseen event clause		Rebate	
	(1)	(2)	(3)	(4)	(5)	(6)
Mayor Change	0.3368	0.4950	0.0967	-0.0172	0.0668	0.0472
	(0.1185)	(0.1198)	(0.0435)	(0.0511)	(0.0277)	(0.0344)
Covariates	No	Yes	No	Yes	No	Yes
Observations	52662	52662	52662	52662	45903	45903

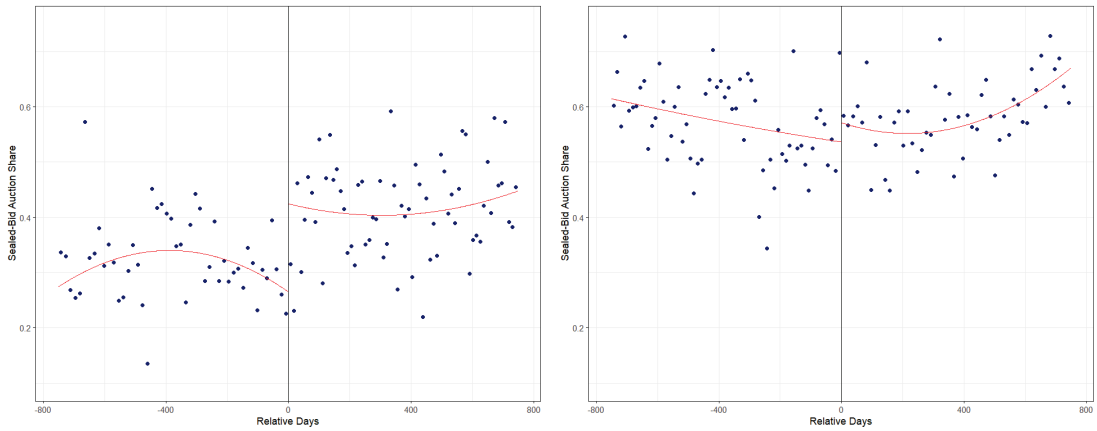
Notes: DiD estimation results are presented in this table. Changes in the rebate values and monthly percentage of spending for different contracting methods are presented above the standard errors written in parentheses. Covariates are the SEGE values for each city.

6.2 Regression Discontinuity in Time results

In this section, each outcome is shown for the two groups side by side in graphs. Triangular kernels and quadratic polynomial fits are used in graphs. RD estimates are given in tables. Each result of RDiT estimations has the same indication as the corresponding DiD estimation result.

In the graphs, it can be seen that groups have different initial levels for different procedures. In the earlier chapters of this thesis, it was stated that a high share of sealed-bid auction use is associated with more transparency and less corruption probability. However, it was also stated that affiliated companies of municipalities use exceptional procedures often. Since the treatment group contains the largest municipalities, which have the highest number of affiliated companies, it is natural for them to have a smaller share of sealed-bid auctions than control group municipalities initially. This thesis is interested in the change in procurement behaviors after the elections. Therefore, it would be wrong to comment on the initial values.

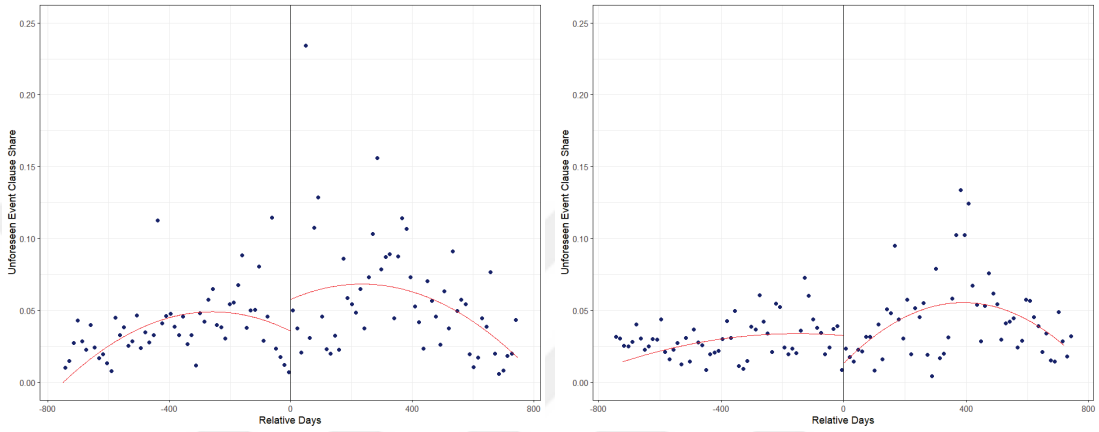
Figure 6 shows that both groups experienced an increase in sealed-bid auction shares in different magnitudes after the elections. The first two columns of Table 5 show that 95% confidence intervals of the estimates do not intersect. Thus, it can be said that the increase is larger for the treatment group.



Treatment Group **Control Group**

Figure 6. RD Plots for the change in the share of sealed-bid auctions for the treatment and the control groups.

Figure 7 shows that after the elections, the treatment group used unforeseen event clause more than they did before the elections. The impact of the elections is in the opposite direction for the control group. There is a fall in unforeseen event clause usage rate after the elections. The last two columns of Table 5 display the estimates for each group, and they show that 95% confidence intervals of the estimates do not intersect.



Treatment Group **Control Group**

Figure 7. RD Plots for the change in the share of unforeseen event clause for the treatment and the control groups.

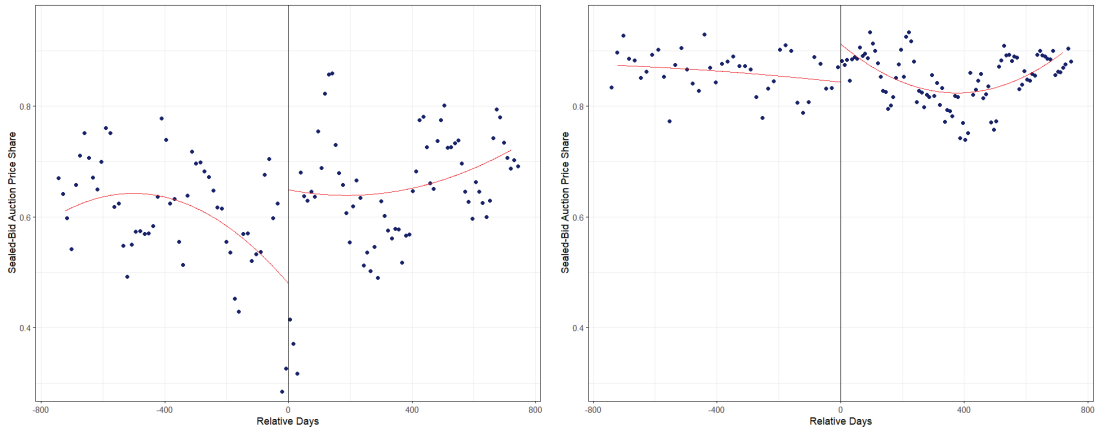
Table 5. RDiT Estimation of the Share of Contracting Methods

	Sealed-bid auction		Unforeseen event clause	
Estimate	0.159*** [0.113 , 0.206]	0.034* [-0.004 , 0.072]	0.024** [0.001 , 0.047]	-0.019*** [-0.032 , -0.007]
Group	Treatment	Control	Treatment	Control
Observations Pre	11260	16635	11260	16635
Observations Post	8993	14012	8993	14012

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

In Figure 8, it can be seen that the price share of contracts awarded through sealed-bid auctions has risen for both groups. The first two columns of Table 6 show

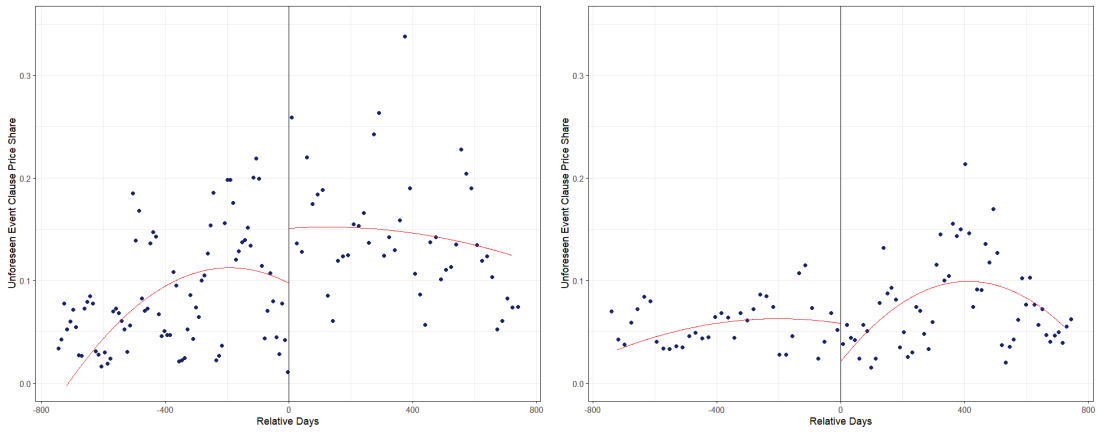
that these rises are different in volume, confirmed by not intersecting 95% confidence intervals. The election impact is significantly greater on the treatment group.



Treatment Group **Control Group**

Figure 8. RD Plots for the change in the sealed-bid auction price share for the treatment and the control groups.

Figure 9 demonstrates the changes in the price share of contracts awarded by using the unforeseen event clause. The results are similar to the changes in the number of contracts for this procedure. There is an increase for the treatment group and a decrease for the control group. Column 3 and Column 4 of Table 6 present statistically significant changes in the inverse directions.

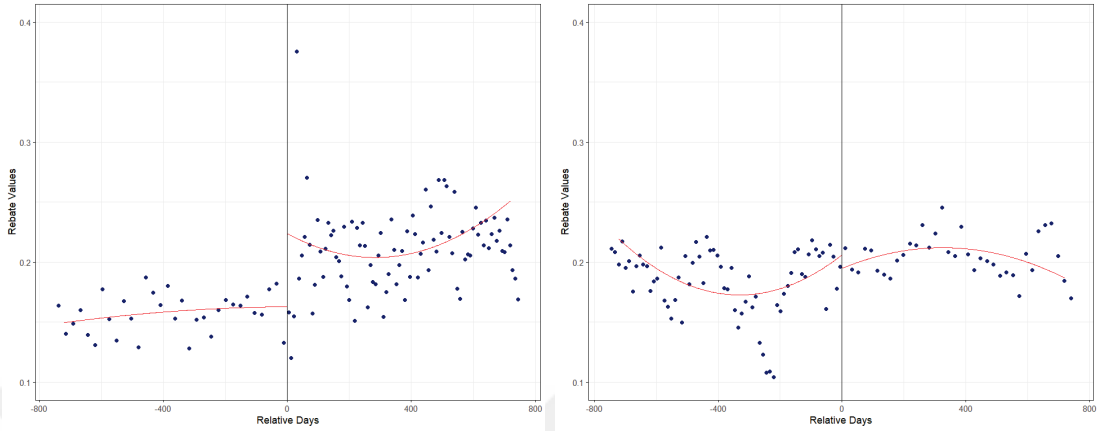


Treatment Group **Control Group**

Figure 9. RD Plots for the change in the unforeseen event clause price share for the treatment and the control groups.

Lastly, the changes in rebate values are displayed in Figure 10. There is an increase for the treatment group, while the control group does not experience much

difference. The last two columns of Table 6 backs these graphs by demonstrating a significant increase for the treatment group and an insignificant fall for the control group. 95% confidence intervals of the estimates do not intersect.



Treatment Group **Control Group**

Figure 10. RD Plots for the change in the rebate values for the treatment and the control groups.

Table 6. RDiT Estimation of the Price Share of Contracting Methods and Rebate

	Sealed-bid auction		Unforeseen event clause		Rebate	
Estimate	0.169*** [0.152 , 0.187]	0.069*** [0.058 , 0.081]	0.054*** [0.039 , 0.068]	-0.037*** [-0.045 , -0.029]	0.061*** [0.041 , 0.081]	-0.011 [-0.026 , 0.004]
Group	Treatment	Control	Treatment	Control	Treatment	Control
Observations Pre	11045	16304	11045	16304	9048	14826
Observations Post	8849	13680	8849	13680	7726	11822

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

CHAPTER 7

ALTERNATIVE MECHANISMS AND ROBUSTNESS TESTS

7.1 Checking for electoral competition

In this alternative mechanism, the control group includes only the municipalities that experienced electoral competition since it can be argued that parties do not have any incentive to perform better in municipalities in which they are almost guaranteed to win. The municipalities that experienced electoral competition were selected as the provinces with the winning party had less than 10% margin in the elections. This threshold was selected since examples from the literature (Bowler and Donovan, 2011; Gadjanova, 2022; Stratmann, 2010) use this, and was found suitable for the context of the 2019 Elections. The results are similar to the main findings.

Table 7. DiD Estimation Relative to the Municipalities with Electoral Competition but without Mayor Change

	Sealed-bid auction	Unforeseen event clause	Sealed-bid auction price	Unforeseen event clause price	Rebate
Mayor Change	0.1629 (0.0712)	0.0723 (0.0259)	0.0884 (0.149)	0.3128 (0.1466)	0.0826 (0.0316)
Observations	26261	26261	25829	25829	22577

Notes: DiD estimation results are presented in this table. The treatment group remains the same, while the control group contains municipalities with electoral competition but without a change in the ruling party. Parentheses display the standard errors.

Table 8. RDiT Estimation for the Municipalities with Electoral Competition but without Mayor Change

	Sealed-bid auction	Unforeseen event clause	Sealed-bid auction price	Unforeseen event clause price	Rebate
Estimate	0.053 [-0.038 , 0.143]	-0.058*** [-0.091 , -0.025]	0.078*** [0.037 , 0.120]	-0.129*** [-0.156 , -0.103]	-0.025 [-0.059 , 0.009]
Observations Pre	2610	2610	2588	2588	5539
Observations Post	2036	2036	2011	2011	4309

Notes: RDiT estimation results for the municipalities with electoral competition but without mayor change are presented in this table. A triangular kernel and bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

7.2 Checking for party effect

In this alternative mechanism, the control group includes only the municipalities won by RPP again. The original treatment group is formed by RPP municipalities, and this can help to evaluate whether the treatment effect is caused by the change in mayors or having a mayor from RPP. Trends before the elections were not parallel between the treatment group and the newly created control group. Therefore, this test is only carried out through RDiT. The results indicate that for some outcomes, it can be said that there is a party effect, but it cannot be said for all variables.

Table 9. RDiT Estimation for the Cities Ruled by RPP Before and After the Elections

	Sealed-bid auction	Unforeseen event clause	Sealed-bid auction price	Unforeseen event clause price	Rebate
Estimate	-0.045* [-0.098 , 0.008]	-0.009 [-0.024 , 0.007]	0.052*** [0.041 , 0.063]	-0.013*** [-0.021 , -0.005]	-0.037*** [-0.061 , -0.013]
Observations Pre	6994	6994	6720	6720	5539
Observations Post	6110	6110	5818	5818	4309

Notes: RDiT estimation results for cities ruled by RPP before and after the elections are presented in this table. A triangular kernel and bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

7.3 DiD estimations with various sample sizes

In this section, DiD estimation results are tested. As mentioned in Chapter 5, the main dataset was trimmed for price estimations and was trimmed again for rebate estimations. Initial estimations are repeated for smaller samples and displayed in Table 10, Table 11, and Table 12. The results are in line with the main findings, indicating there is not any negative effect of data trimming.

Table 10. DiD Estimation of the Share of Contracting Methods Using Price-Trimmed Data

	Sealed-bid auction		Unforeseen event clause	
	(1)	(2)	(3)	(4)
Mayor Change	0.1712	0.3128	0.0299	0.0219
	(0.798)	(0.0743)	(0.0142)	(0.0225)
Covariates	No	Yes	No	Yes
Observations	52662	52662	52662	52662

Notes: DiD estimation results are presented in this table. Changes in the monthly percentage of the contracting methods are presented above the standard errors written in parentheses. Covariates are the SEGE values for each city.

Table 11. DiD Estimation of the Share of Contracting Methods Using Rebate-Trimmed Data

	Sealed-bid auction		Unforeseen event clause	
	(1)	(2)	(3)	(4)
Mayor Change	0.1177	0.1603	0.0305	0.0103
	(0.0531)	(0.0719)	(0.0165)	(0.0209)
Covariates	No	Yes	No	Yes
Observations	45903	45903	45903	45903

Notes: DiD estimation results are presented in this table. Changes in the monthly percentage of the contracting methods are presented above the standard errors written in parentheses. Covariates are the SEGE values for each city.

Table 12. DiD Estimation of the Price Share of Contracting Methods Using Rebate-Trimmed Data

	Sealed-bid auction		Unforeseen event clause	
	(1)	(2)	(3)	(4)
Mayor Change	0.3589	0.502	0.097	-0.013
	(0.1244)	(0.128)	(0.0471)	(0.0492)
Covariates	No	Yes	No	Yes
Observations	45903	45903	45903	45903

Notes: DiD estimation results are presented in this table. Changes in the monthly percentage of spending for different contracting methods are presented above the standard errors written in parentheses. Covariates are the SEGE values for each city.

7.4 Alternative RDiT estimations

RDiT estimations are repeated with different bandwidths and polynomials in this section. Table 13 and Table 14 display the estimations with a bandwidth of 540 days instead of 720, while Table 15 and Table 16 display the estimations with a bandwidth of 360 days. Table 17 and Table 18 show the estimations for 720-day bandwidth but with linear fit instead of quadratic polynomial fit. The findings support the main RDiT results.

Table 13. RDiT Estimation of the Share of Contracting Methods

	Sealed-bid auction		Unforeseen event clause	
Estimate	0.133***	0.02	0.042***	-0.008
	[0.077 , 0.188]	[-0.024 , 0.065]	[0.015 , 0.069]	[-0.022 , 0.006]
Group	Treatment	Control	Treatment	Control
Observations Pre	7949	11957	7949	11957
Observations Post	6410	9935	6410	9935

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 540 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

Table 14. RDiT Estimation of the Price Share of Contracting Methods and Rebate

	Sealed-bid auction		Unforeseen event clause		Rebate	
Estimate	0.173*** [0.152 , 0.194]	0.046*** [0.033 , 0.060]	0.085*** [0.066 , 0.103]	-0.011** [-0.021 , -0.002]]	0.067*** [0.043 , 0.090]	-0.024*** [-0.041 , -0.006]
Group	Treatment	Control	Treatment	Control	Treatment	Control
Observations Pre	7810	11748	7810	11748	6453	10656
Observations Post	6317	9674	6317	9674	5457	8302

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 540 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

Table 15. RDiT Estimation of the Share of Contracting Methods

	Sealed-bid auction		Unforeseen event clause	
Estimate	0.072** [0.002 , 0.141]	0.031 [-0.024 , 0.086]	0.092*** [0.058 , 0.126]	-0.011 [-0.028 , 0.006]
Group	Treatment	Control	Treatment	Control
Observations Pre	4839	7011	4839	7011
Observations Post	4012	6618	4012	6618

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 360 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

Table 16. RDiT Estimation of the Price Share of Contracting Methods and Rebate

	Sealed-bid auction		Unforeseen event clause		Rebate	
Estimate	-0.046*** [-0.073 , -0.018]	0.032*** [0.015 , 0.048]	0.202*** [0.178 , 0.226]	-0.012* [-0.024 , 0.001]	0.071*** [0.042 , 0.100]	0.007 [-0.014 , 0.029]
Group	Treatment	Control	Treatment	Control	Treatment	Control
Observations Pre	4759	6909	4759	6909	4010	6307
Observations Post	3960	6440	3960	6440	3453	5549

Notes: RDiT estimation results are presented in this table. A triangular kernel, quadratic polynomials, and a bandwidth of 360 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.

Table 17. RDiT Estimation of the Share of Contracting Methods

	Sealed-bid auction		Unforeseen event clause	
Estimate	0.113***	0.012	0.022***	-0.006
	[0.084 , 0.142]	[-0.013 , 0.037]	[0.008 , 0.036]	[-0.015 , 0.003]
Group	Treatment	Control	Treatment	Control
Observations Pre	11260	16635	11260	16635
Observations Post	8993	14012	8993	14012

Notes: RDiT estimation results are presented in this table. A triangular kernel, linear fits, and a bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

Table 18. RDiT Estimation of the Price Share of Contracting Methods and Rebate

	Sealed-bid auction		Unforeseen event clause		Rebate	
Estimate	0.109***	0.031***	0.033***	-0.016***	0.043***	0.016***
	[0.099 , 0.119]	[0.023 , 0.038]	[0.025 , 0.041]	[-0.021 , -0.011]	[0.030 , 0.055]	[0.006 , 0.025]
Group	Treatment	Control	Treatment	Control	Treatment	Control
Observations Pre	11045	16304	11045	16304	9048	14826
Observations Post	8849	13680	8849	13680	7726	11822

Notes: RDiT estimation results are presented in this table. A triangular kernel, linear fits, and a bandwidth of 720 days for each side of the cutoff were used. 95% confidence intervals are displayed in brackets with standard errors that are clustered at the municipality level. $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

CHAPTER 8

CONCLUSION

The effect of a ruling party change in a metropolitan municipality on procurement behaviors has been examined in this thesis using procurement and election data from Turkey. In three out of five parameters examined, new mayors overperform their counterparts and predecessors. They use sealed-bid auctions more, and savings are increased as a result of higher rebate values. The clause that allows direct negotiation in case of unforeseen events has been used a little more, but the increase is not significant when the calculation shifts from the share of the contract number to the total amount spent.

Some back-of-the-envelope calculations suggest that the relative 6.68% increase in rebate values results in savings of around 6,732,175,815 Turkish Liras for 2024 January prices. The 33.68% increase in sealed-bid auction price share means that contracts in the amount of 33,943,066,084 TL would not be awarded by sealed-bid auctions if the mayor change did not happen. This effect is 9,745,529,959 TL for the unforeseen event clause contracts.

From the analyses, it can be said that after the changes in the ruling party of metropolitan municipalities, newly elected mayors serve better in procurement according to the good of the society.

REFERENCES

Adiguzel, F. S., Kaba, M., & Koyuncu, M. (2022). Takeover of local governments, public procurement performance, and public service delivery.

Alt, J., Bueno de Mesquita, E., & Rose, S. (2011). Disentangling accountability and competence in elections: Evidence from us term limits. *The Journal of Politics*, *73*(1), 171–186.

Arvate, P. R., Barbosa, K., & Fuzitani, E. (2013). Campaign donation and government contracts in brazilian states.

Ayhan, B., & Üstüner, Y. (2015). Governance in public procurement: The reform of turkey's public procurement system. *International Review of Administrative Sciences*, *81*(3), 640–662.

Baltrunaite, A. (2020). Political contributions and public procurement: Evidence from lithuania. *Journal of the European Economic Association*, *18*(2), 541–582.

Baranek, B., & Titl, V. (2021). Political connections in public procurement. In O. Bandiera, E. Bosio, & G. Spagnolo (Eds.), *Procurement in focus: Rules, discretion, and emergencies* (pp. 43–52). CEPR PRESS.

Boas, T. C., Hidalgo, F. D., & Richardson, N. P. (2014). The spoils of victory: Campaign donations and government contracts in brazil. *The Journal of Politics*, *76*(2), 415–429.

Bowler, S., & Donovan, T. (2011). Electoral Competition and the Voter. *Public Opinion Quarterly*, *75*(1), 151–164.

Broms, R., Dahlström, C., & Fazekas, M. (2019). Political competition and public procurement outcomes. *Comparative Political Studies*, *52*(9), 1259–1292.

Chong, E., Klien, M., & Moore, J. (2014). Elections and project delivery in public work procurement: A red ribbon effect. *EPPP DP*, *11*.

Claessens, S., Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: The role of campaign contributions. *Journal of financial economics*, *88*(3), 554–580.

Cooper, M. J., Gulen, H., & Ovtchinnikov, A. V. (2010). Corporate political contributions and stock returns. *The Journal of Finance*, *65*(2), 687–724.

Coviello, D., & Gagliarducci, S. (2017). Tenure in office and public procurement. *American Economic Journal: Economic Policy*, *9*(3), 59–105.

Dávid-Barrett, E., & Fazekas, M. (2020). Grand corruption and government change: An analysis of partisan favoritism in public procurement. *European Journal on Criminal Policy and Research*, *26*(4), 411–430.

de Benedictis-Kessner, J., & Warshaw, C. (2016). Mayoral partisanship and municipal fiscal policy. *The Journal of Politics*, *78*(4), 1124–1138.

Demircioğlu, M. Y. (2014). İhale yolsuzluklarında yeni trend; açık ihale usulünün terki, pazarlık yolu ile ihale usulünün keşfi. *Türkiye Barolar Birliği Dergisi*, *S, 115*.

Duchin, R., & Sosyura, D. (2012). The politics of government investment. *Journal of Financial Economics*, *106*(1), 24–48.

Emek, U., & Acar, M. (2015). Public procurement in infrastructure: The case of turkey. *The Anticorruption Report*, *3*, 84–96.

Falcón-Cortés, A., Aldana, A., & Larralde, H. (2022). Practices of public procurement and the risk of corrupt behavior before and after the government transition in méxico. *EPJ Data Science*, *11*(1), 19.

Fang, H., Li, M., & Wu, Z. (2022). *Tournament-style political competition and local protectionism: Theory and evidence from china* (tech. rep.). National Bureau of Economic Research.

Fazekas, M., & Wachs, J. (2020). Corruption and the network structure of public contracting markets across government change. *Politics and Governance*, *8*(2), 153–166.

Ferreira, F., & Gyourko, J. (2009). Do political parties matter? evidence from us cities. *The Quarterly journal of economics*, *124*(1), 399–422.

Gadjanova, E. (2022). Competitive elections, status anxieties, and the relative strength of ethnic versus national identification in africa. *Political Behavior*, *44*(4), 1731–1757.

Goldman, E., Rocholl, J., & So, J. (2013). Politically connected boards of directors and the allocation of procurement contracts. *Review of Finance*, *17*(5), 1617–1648.

Gürakar, E. Ç. (2016). Politics of favoritism in public procurement in turkey: Reconfigurations of dependency networks in the akp era. *New York: Palgrave Macmillan*.

Gürakar, E. Ç., & Meyersson, E. (2016). State discretion, political connections and public procurement: Evidence from turkey. *Stockholm School of Economics: unpublished manuscript). Stockholm*.

Havlik, A., Heinemann, F., & Nover, J. (2021). Election cycles in european public procurement. *ZEW-Centre for European Economic Research Discussion Paper*, (21-079).

Lerusse, A., & Van de Walle, S. (2022). Local politicians' preferences in public procurement: Ideological or strategic reasoning? *Local Government Studies*, *48*(4), 680–703.

Marx, B. (2018). Elections as incentives: Project completion and visibility in african politics.

Mullard, M., & Swaray, R. (2006). The politics of public expenditure from thatcher to blair. *Policy & Politics*, *34*(3), 495–515.

Philips, A. Q. (2016). Seeing the forest through the trees: A meta-analysis of political budget cycles. *Public Choice*, *168*, 313–341.

Pilz, O. (2020). Political competition and public procurement corruption risks in hungarian municipalities between 2010-2019.

Podumljak, M., & David-Barrett, E. (2015). Political favouritism in croatian public procurement. *Government favouritism in europe*, 69.

Republic of Turkey Public Procurement Authority. (2012). Public procurement law. https://www2.ihale.gov.tr/english/4734_English.pdf

Republic of Turkey Public Procurement Authority. (n.d.). Kamu alımları izleme raporları. https://www.ihale.gov.tr/kamu_alimlari_izleme_raporlari-45-1.html

Schoenherr, D. (2019). Political connections and allocative distortions. *The Journal of Finance*, *74*(2), 543–586.

Stratmann, T. (2010). Do low contribution limits insulate incumbents from competition? *Election Law Journal*, *9*(2), 125–140.

Straub, S. (2014). Political firms, public procurement, and the democratization process.

Titl, V., & Baranek, B. (n.d.). The cost of favoritism in public procurement [Accepted/In press]. *Journal of Law and Economics*.

Titl, V., De Witte, K., & Geys, B. (2021). Political donations, public procurement and government efficiency. *World Development*, *148*, 105666.

Titl, V., & Geys, B. (2019). Political donations and the allocation of public procurement contracts. *European Economic Review*, *111*, 443–458.

Turkish Statistical Institute. (2021). Adrese dayalı nüfus kayıt sistemi sonuçları. https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali-Nufus-Kayit-Sistemi-Sonuclari-2021-45500

Veiga, L. G., & Veiga, F. J. (2007). Political business cycles at the municipal level. *Public choice*, *131*, 45–64.

Wolman, H., Strate, J., & Melchior, A. (1996). Does changing mayors matter? *The Journal of Politics*, *58*(1), 201–223.

World Bank. (n.d.). Gdp by country.
https://wits.worldbank.org/CountryProfile/en/country/by-country/startyear/ltst/endyear/ltst/indicator/NY-GDP-MKTP-CD

Yıldırım, H. (2018). Kamu ihale kanunu'nun 21'inci maddesinin (b) bendinde yapilan düzenlemenin değerlendirilmesi. *Uyuşmazlık Mahkemesi Dergisi*, (12).