

RESEARCH ARTICLE

Do political power shifts reduce corruption in Korean local governments?

Moonsoo Lee^{1*}  and Hyunhoe Bae²

¹Department of Political Science, The University of Texas at Dallas, Richardson, TX, USA and ²Department of Public Administration, Yonsei University, Seodaemun-gu, Seoul, South Korea

*Corresponding author. E-mail: mxl210001@utdallas.edu

(Received 18 September 2021; revised 7 April 2022; accepted 26 June 2022; first published online 22 September 2022)

Abstract

Previous studies have discussed the effects of electoral competition on corruption, but only a few explored the effects of political power shifts – the results of electoral competition. To fill the gap, this study tests hypotheses that three types of political power shifts (the shifts of individual local government heads, local government ruling party, and local council majority) reduce the corruption (overall, external, and internal), with a panel data set of 226 Korean local governments. The empirical study shows that only shifts in the local government head reduce internal corruption. The other dependent and independent variables do not have any significant relationships. This can be because of structural matters of Korean local politics such as strong mayor-weak council and the closed local elite networks.

Key words: Closed local elite networks; corruption; local government; political power shift; strong mayor-weak council

1. Introduction

Lord Acton said ‘Power tends to Corrupt and Absolute Power Corrupts Absolutely.’ This proverb points out that the degree of corruption is positively associated with the degree of power. Historically, many dictators have been involved in corruption scandals. Statistical indicators of corruption show that autocratic countries are associated with higher level of corruption than are democratic countries. Democracy is expected to lower the degree of corruption compared with non-democratic political regimes. This is because democracy provides opportunities to vote corrupt politicians out of office through electoral competition (Dahl, 1971; Myerson, 1993). Political scientists have debated whether electoral competition reduces the degree of corruption and this seems an ongoing process (Golden and Chang, 2001; Damania and Yalcın, 2008; Nyblade and Reed, 2008; Batzilis, 2019). The real effect is contentious, but electoral competition is regarded as providing the possibility of eliminating corrupted elites and disclosing corruption scandals. In fact, politicians and parties disclose the information of corruption during electoral campaign period.

The question of whether electoral competition reduces the degree of corruption is the same as asking ‘Does the possibility of voting the incumbent out of office reduce the degree of corruption?’ There is a considerable debate about the possibility of removing corrupted elites and the degree of corruption (Nyblade and Reed, 2008; Batzilis, 2019), but it is difficult to search literature on the relationship between the result of electoral competition and corruption. At this point, the authors raise concerns about whether political power shifts by electoral competition reduce the degree of corruption. Does a change of an elected head of the executive branch reduce the degree of government corruption? Does a change of the ruling party or the legislature majority lower the degree of government corruption?

Using a panel data set from 226 Korean local governments covering the period 2010–2017 (or 2009–2016), this study empirically investigates whether political power shifts reduce corruption. The authors select Korean local governments as the unit of analysis for the following reasons. First, local governments share many similarities such as the same official language, the same bureaucrat structure and culture. The difference is merely political factors around each region. In Seoul metropolitan area, two major parties compete intensively in every election. On the other hand, a specific party dominates in other local areas. Democratic party dominates over Jeolla provinces, while a major conservative party does Gyeongsang provinces. It is easy to compare the change of corruption between the places where the political party shifts often happen and where they do not.

Second, all local government heads and council members are elected at the same time every 4 years. The simultaneous local elections make it easy to compare the degree of corruption among local governments in the same time range depending on the local election cycle. Of course, the simultaneous local elections allow national politics to dominate over local politics. National policy issues or political scandals dominate the local elections. Politicians not from the region or fresh faces are sometimes recommended as major party candidates because of national politics issues. Such dominance of national politics is criticized as a cause of underdevelopment of local areas. However, the dominant national politics can contribute to reducing the local government corruption. The new local government heads recommended by the dominance of national politics, despite not being from the region, can weaken private connections between regional politicians, bureaucrats, and businessmen by employing new staffs in the local governments.

This paper is structured in the following order. First, the theoretical gap and research hypotheses of political power shifts and corruption in Korean local governments are derived from a detailed literature review. Second, the operational definitions for variables, how to collect data, and methodology are explained in detail. The last section discusses the key findings and related implications.

2. Theoretical background and hypotheses

The standard definition of corruption is the misuse of public office for private or political gain (Jain, 2001a; Tavits, 2007). As a failure of the political or public system, corruption entails the abuse of public authority (Jain, 2001a, 2001b). Crimes are not viewed as forms of corruption for themselves, but they become corruption when relying on help from politicians or bureaucrats (Jain, 2001a; Begovic, 2005). An action is regarded as corruption when it gives unfair benefits to a specific individual or group as a result of a private transaction (Tanzi, 1995). The concept of corruption covers all forms of corruption – grand or petty (Schleiter and Voznaya, 2014; Batzilis, 2019). Elected officials are involved in grand corruption, whereas petty corruption indicates the misuse of public power by non-elected bureaucrats (Jain, 2001a). While grand corruption is often the focus of the media and rivals of elected officials, petty corruption tends to receive less attention and to be more widespread and clandestine. Nonetheless, petty corruption is influenced by the political mechanism. The elected official controls bureaucrats through direction and personnel management authority, such as over promotions, transfers, and demotions (Im *et al.*, 2013). The elected legislator also monitors the performance and behavior of the bureaucrats. Regardless of its agent, the control of corruption depends on political dynamics.

Corruption is caused by the misuse of public power; therefore, its likelihood or degree is greater when the power is larger, more centralized, and less checked (Rose-Ackerman, 1996; Jain, 2001a). In this view, it is expected that the degree of corruption is lower in democracies than in autocracies (Diamond *et al.*, 1995). Highly democratic countries are found to be the ‘less corrupt’ groups in global corruption index rankings, whereas many autocratic countries suffer from deep-rooted corruption (Sun and Johnston, 2009). While autocratic countries do not have the institutions controlling the misuse of political power, highly democratic countries operate various institutions that keep an eye on politicians and bureaucrats, such as independent judiciaries, a free media, and NGOs (Schedler *et al.*, 1999). Most of all, democracy is based on electoral competition. Electoral competition plays

the role of controlling the misuse of public power (Wojtasik, 2013). It creates the opportunities to disclose corruption scandals and remove the corrupted political elites or those who fail to control petty corruption from their office (Dahl, 1971; Rose-Ackerman, 1998; Sun and Johnston, 2009).

Theoretically, electoral competition is expected to restrain corruption (Nyblade and Reed, 2008; Batzilis, 2019). It disciplines the incumbent and activates the transmission of information about politics and public administration (Batzilis, 2019). Challengers who want to be elected attempt to disclose the weaknesses and faults of the incumbent, whereas the incumbent tries to reduce the risks as far as possible. During the electoral campaign period, the candidates compete in terms of who will be more capable and who are not corrupted. However, there also exists a contrary logic whereby electoral competition opens the possibilities for corruption, such as vote-buying (Nyblade and Reed, 2008; Batzilis, 2019). Empirical studies show conflicting evidence on the relationship between electoral competition and corruption (Golden and Chang, 2001; Damania and Yalcyn, 2008; Nyblade and Reed, 2008; Batzilis, 2019). Batzilis (2019) finds a positive effect of electoral competition on the corruption of Greek local government. In a study of Japan, Nyblade and Reed (2008) reveal that electoral competition is positively associated with election law violations, whereas it is negatively associated with financial scandals. On the one hand, Damania and Yalcyn (2008) discover that electoral competition does not remove corruption but merely changes its form. Schleiter and Voznaya (2014) explain that party system competitiveness determines the effect of electoral competition on corruption. According to them, the degree of corruption decreases with the rise of the number of effective parties but increases when the party system is highly fragmented, and corruption deteriorates in dominant party systems.

Continuity of political power has also been considered to be a positive determinant of the degree of corruption, because it is positively associated with the size of power (Alt and Lassen, 2003; Cho *et al.*, 2014; Kim, 2017). The longer an individual works in a specific position, the more knowledge and network they have. Knowledge and network are the key to power; therefore, the incumbent has more power. Empirical studies demonstrate that the degree of corruption decreases when the terms of elected heads of government are short. Second- or third-term heads of local government have fewer incentives for the next election and are more exposed to opportunities to misappropriate public resources (Alt and Lassen, 2003; Ferraz and Finan, 2011). In an empirical study of the determinants of corruption in Korean local governments, Cho *et al.* (2014) show that the degree of corruption is greater in local governments managed by a re-elected head. Kim (2017) also finds that the number of local government head re-elections is positively associated with the degree of corruption. Therefore, we expect that political power shift reduces the degree of corruption, and so we make three hypotheses of the negative relationship between political power shift and corruption along with three types of political power shifts based on the logic explained in the following paragraphs.

The first hypothesis is about the negative effects of the shift of individual elected officials – local government head – on the degree of corruption in local government. The incumbent has achievements to show off to voters, while the challengers play up their ethical integrity. The newly elected officials do not have any fulfillments, so it is easy for them to distinguish themselves by focusing on their predecessors' faults. Newly elected officials criticize the predecessors by disclosing their corruption. They pronounce they are the better person to vote for because they are not corrupt, which can put them in the lead to win the local government. The newly elected local government heads can naturally take the grip for the bureaucrats by disclosing and punishing the corrupt ones. Bureaucrats are cautious to avoid being the target of newly elected local government heads. Bliss and Di Tella (1997) explain that the newly elected officials are less exposed to the possibility of corruption than are their predecessors. Because the predecessors have been in power for a number of years, they have diverse networks and were exposed to the attraction of illegal transactions. Alternately, newly elected local government heads have not been involved in corruption because they held no previous local power. In addition, the illegal associations of bureaucrats can be dismantled with a political power shift; some bureaucrats are retired or transferred to other positions when political power is replaced. Aside from those political mechanisms, the newly elected officials view the situation from a new

perspective. Individuals tend to be more sensitive to the shortcomings of others than to their own; therefore, they can see the issues and address them.

H1: A shift in the local government head reduces the degree of corruption in local governments.

The second hypothesis focuses on the negative effects of party power shifts on the degree of corruption. Party power shifts can be indicators of checks on government. The opposition party plays the role of checking and monitoring the executive branch of government. The degree of check by the opposition party depends on the likelihood of a political power shift because the opposition party has power when it is expected to take control of the political power. The incumbent and ruling party do not mind the opposition party's check when they expect to win the next election easily. This is consistent with the research study by Schleiter and Voznaya (2014) regarding party system competitiveness and corruption. In Korean local governments, intra-party local government head shifts usually occur when the incumbents cannot partake in local elections because of term limits or legal matters. It is rare that the incumbents are not selected as candidates for their party. In the case of intra-party changes, there is nearly no competition between a newly elected head of local government and their predecessor.¹ However, inter-party shifts often accompany the defeat of the incumbent. Even when the predecessor did not run for election, the new ruling party's local government head has more incentive to distinguish themselves from their predecessor than does the newly elected head of the party the predecessor belongs to. This phenomenon is maximized in Korea because parties and candidates in Korean local elections tend to maximize their benefits by focusing on their rivals' faults (particularly corruption-related ones) rather than emphasizing their own policy visions (Choi, 2018). The strife between parties is increasingly intensified in Korea, so parties try to find the rivals' faults more than in the past. Thus, it is hypothesized that shifts in the inter-party local government head have more negative effects on the degree of corruption than the intra-party shifts.

H2: Shifts in inter-party local government head have more negative effects on the degree of corruption than do the intra-party shifts.

The third hypothesis is about the negative effects of shift of local council majority on the corruption in local government. This hypothesis is made because Korean local government system adopts the presidential system, which seeks the separation of political power. The executive branch of government is separated from the legislative body. The legislature monitors the executive branch, and corruption is better controlled in divided governments than unified ones (Alt and Lassen, 2008). Alongside the shifts in the local government head, shifts in the local council majority can significantly affect the local public administration. However, it is complex to explain that the shifts in the local council majority reduce the corruption of local government. Therefore, the authors assume the following virtual scenario: there are two parties – A and B – in a region, and the incumbent local government head belongs to either party A or B, while party A holds the majority in the local council. Party B defeats party A in a new local council election. There exist four possible scenarios. First, when both the prior and new heads of local government belong to party A (or the prior head of A is re-elected), the local council, occupied by the new majority B, will try to keep the executive branch in check more. Second, when the prior head of local government belongs to party A and the new one to party B, the degree of corruption will be reduced. Although the local government is unified along the result of the local election, the ruling party is changed. Third, when the prior head of local government belongs to party B and the new one to party A, attempts to control corruption will be increased the most. The majority and the ruling party are different, and both are changed. Fourth, when both the prior and new heads of local government belong to party B (or the prior local government head of B is re-elected), the

¹Some incumbents fail to be their party's candidate; therefore, they run for the local election with no-party affiliation or they change their party affiliation.

attempts to control corruption will be the least of the four scenarios. Instead, the checks on the local council can be reduced. However, this last scenario rarely happens in Korean local politics. It has occurred in only three of the 226 local governments in the 5th (2010) and 7th (2018) local elections, and in five local governments in the 6th (2014) local election. Thus, it is hypothesized that shifts in the local council majority reduce the degree of corruption in local governments.

H3: Shifts in the local council majority reduce the degree of corruption in local governments.

3. Research design

3.1 *Dependent variables*

The Anti-Corruption and Civil Rights Commission (ACRC) annually measures the anti-corruption index of a public agency by conducting surveys of those who use the agency or work there (ACRC, 2018). The surveys are conducted by online (smartphone and email), telephone, and in-person interviews (ACRC, 2014). The online survey is expected to measure the perceptions of corruption of local governments but has limitations in discussing the matter deeply. Telephone and in-person interviews complement the limitations of the online survey because the investigator can discuss more in depth with the respondents regarding the matter of corruption. The anti-corruption index of the year N is measured by those who have used the public agency from July in the year $N - 1$ to June in the year N , or those who work in the public agency on 30 June in the year N (ACRC, 2017). This conveniently reflects the effects of local elections because the local election winners start their terms on 1 July.

The anti-corruption index is distinguished between the external anti-corruption index and the internal anti-corruption index (ACRC, 2012). The former is measured by a survey of those who use the public agency, while the latter is measured by a survey of insiders. The overall anti-corruption index is estimated by subtracting the index of corruption incidents from the sum of the two anti-corruption indexes and the evaluation of policy-related people, but it is estimated from the different weights on the two other corruption indexes (ACRC, 2017).^{2,3} Regarding local government, the ACRC began measuring the external anti-corruption index in 2008 and the other two indexes in 2010.

External anti-corruption is measured by asking citizens whether they give money, gifts, or regalements to public officials, how much, and how transparent and accountable the local government officials are in their work process (ACRC, 2017). Internal anti-corruption is measured in more detail than external anti-corruption. With the questions on external anti-corruption, the ACRC asks insiders about the effectiveness of anti-corruption institutions in protecting whistleblowers, detecting and punishing corrupt behavior, and executing the Improper Solicitation and Graft Act (ACRC, 2017).

As with previous studies of corruption in Korean local government (e.g., Jang, 2010; Cho et al., 2014), anti-corruption indexes are transformed into corruption indexes by being subtracted from 10. The lower the corruption index is, the cleaner the local government. Until 2017, anti-corruption indexes were released as a specific score, such as 7.54, but since 2018, the ACRC does not release a specific score because this promotes wasteful competition between public agencies (ACRC, 2018). Thus, the timeframe of this study is from 2010, when the internal and overall corruption indexes were initially measured, to 2017 when specific scores were last released.

Measured by surveys, the corruption index cannot capture an exact figure for corruption. However, because of its clandestine nature, no hard data can provide an exact figure for corruption (Johnston and Kpundeh, 2002). Some researchers (e.g., Glaeser and Saks, 2006) use convictions as an indicator of corruption; however, every act of corruption is convicted. Furthermore, the convictions of acts of

²Overall, anti-corruption index = $0.601 \times$ External anti-corruption index + $0.250 \times$ Internal anti-corruption index + $0.149 \times$ Evaluation of policy-related people – The index of corruption incidents.

³The ACRC does not conduct the evaluation of policy-related people in some local governments, and the overall anti-corruption index of those local governments are estimated from the sum of $0.735 \times$ External anti-corruption index + $0.265 \times$ Internal anti-corruption index – The index of corruption incidents.

corruption in year N do not always happen in year N . The time difference between the act and the conviction makes it difficult to investigate what variables affect the degree of corruption because those studies must measure the degree of corruption and other variables annually. Other researchers use news reports of corruption scandals (e.g., Nyblade and Reed, 2008) and audit reports (e.g., Olken, 2007; Batzilis, 2019), but these hard data have the same issues as conviction data. Instead, whether an action is corrupt or not depends on perception (Klitgaard, 1988). An action can be perceived as corrupt in one country, but not in another. In some respects, survey data on corruption can be more exact than hard data. Despite the subjectivity of self-reported data, scholars use surveys to measure the degree of corruption (Treisman, 2000; Montinola and Jackman, 2002; Pellegrini and Gerlagh, 2008). Most important, the corruption index made by the ACRC is the only systemized data on Korean local government corruption.

3.2 Independent variables

The independent variables indicating political power shifts are encoded based on the local election (once every 4 years) or by-election (once a year from 2016, twice a year until 2015) results. The results of local elections in the year N is encoded identically in years $N + 1$, $N + 2$, $N + 3$, because the term of local politicians is 4 years from July of year N to June of year $N + 4$. If a local government head A is replaced by B in the local election of year N , the independent variable 'Local Government Head Shift' of years N to $N + 3$ is encoded as 1. If A is re-elected in the local election but retires in the middle of the term, and B is elected in the by-election of the year $N + 1$, the Local Government Head Shift is encoded as 0 in year N but 1 in years $N + 1$, $N + 2$, and $N + 3$. This is the same for encoding local council majority shifts.

Shifts of individual heads of local government and local council majorities are simply encoded as 1 (shift) or 0 (no-shift),⁴ but encoding ruling party shifts of the local government is more complex. The authors made three dummy variables for ruling party shifts: (i) inter-party shift dummy (inter-party shift: 1, intra-party shift and no-shift: 0), (ii) intra-party shift dummy (intra-party shift: 1, inter-party shift and no-shift: 0), and (iii) no-shift dummy (inter-party and intra-party shift: 0). If local government head C is replaced by D of the other party in the local election of year N , and D is replaced by E of the same party in the by-election of the year $N + 2$, the authors encode the inter-party shift as 1 for 4 years until the year $N + 3$. Regarding the inter-party shift, 0 indicates there is no inter-party shift (no-shift or only intra-party shift) in a local area for 4 years.

Some elected officials do not belong to any political party. The authors encode 1 in the inter-party shift dummy if a new head of local government is independent, regardless of the predecessor's party. The shift of local government head between independent politicians is also encoded as 1 in the inter-party shift dummy because they do not belong to the same party.

3.3 Control variables

This study controls for the following variables to measure the effects of shifts in political power on corruption: (i) the relationship between heads of local government and local council majorities (RHM), (ii) the ratio of open information of local governments (ROI), (iii) the number of businesses, (iv) population density, (v) gross regional domestic product (GRDP), and (vi) the financial autonomy rate (FAR). These control variables were selected because they are related to the size of or the check on political power, which affect the degree of corruption.

Under the presidential system, the legislature plays the role of keeping check on the executive branch and monitoring government officials. The checks on government officials will be greater when the opposition party holds a majority, while it will be weaker when the ruling party dominates. In a study of American state governments, Alt and Lassen (2008) discovered that a divided

⁴Although a party does not occupy more than or the same as half of the local council seats, if it is the first party, the authors regard it to be the local council majority.

government is less corrupt and more transparent than a unified one. It is the same for Korean local government (Kim, 2013). Accordingly, this study expects RHM to be negatively associated with corruption because a local council majority will try to keep check on the local government more when it is not the ruling party. RHM is encoded as 1 when the ruling party is the local council majority and 0 when it is not.⁵

As with other crimes, corruption is less likely to occur in an environment where behaviors and work processes of individuals and organizations are publicly transparent. Counterbalancing corruption is greater in a system where the legal channels are open and easily accessible (Jain, 2001a); therefore governmental transparency is expected to reduce the degree of corruption (Lindstedt and Naurin, 2010; Bauhr and Grimes, 2017). When governmental transparency is operationally defined as usage of e-government, governmental transparency reduces the degree of corruption (Andersen, 2009). In empirical studies of corruption in Korean local government, Jang (2010) and Cho *et al.* (2014) operationally defined governmental transparency as ROI, which is measured by the ratio of open information to that required by citizens. While Jang (2010) found that there exists no significant relationship between ROI and the degree of corruption, Cho *et al.* (2014) discovered that ROI contributes to reducing overall corruption. This study also uses ROI as a proxy for governmental transparency and expects ROI to reduce the degree of corruption.

By definition, corruption is a consequence of the abuse of public power. The regulatory and budgetary power government officials have is the basis of corruption (Bardhan, 1997; Cho *et al.*, 2014). The number of businesses and population density indicate the degree of regulatory and budgetary power of an area, because businesses and individuals are the objects of regulation and government budgets. Businesses and individuals generally want to evade regulations and to receive money from the government; therefore corruption will be greater in a local area where the number of businesses and population density are larger (Cho *et al.*, 2014). According to Cho *et al.* (2014), the number of businesses contributes to greater overall and external corruption; whereas, against their expectations, population density reduces the degree of corruption.

GRDP is expected to negatively affect the degree of corruption. This indicates the economic development of a local area. Sometimes, economic development promotes the opportunity to raise the level of democracy, negatively associated with corruption (Diamond *et al.*, 1995; Colaresi and Thompson, 2003). Higher educated people tend to live in areas where the regional economy is more developed. Those people are close to the media and interested in government activities. In addition, the young are more likely to live in rich areas. Higher-educated and younger people are less likely to support a certain party or elite. In those areas, the check on the local government is more intense. In Korean local governments' statistics, cities' GRDP is larger than in rural areas, and the anti-corruption index of cities (S_i) is, on average, better than rural areas.

As the rate of a local government's discretionary budget to the overall budget, FAR is another indicator of the budgetary power of local government officials. FAR is estimated by the ratio of the sum of independent tax income and the subsidies given by the central government to the overall budget of the local government. There are conflicting views on the relationship between FAR and the degree of corruption. One view is that FAR is positively associated with the degree of corruption (Scully, 1991). This view is based on the assumption that actors of the budgetary allocation process are rent-seekers. In this view, an increase in governmental budget or expenditure is the same as an increase of opportunities for rent-seeking. A local government in which FAR is high has much discretionary power for budget; therefore, the head and bureaucrats have many opportunities for rent-seeking. Rent-seeking is the abuse of public power for private benefit; hence, high FAR is expected to increase the degree of corruption. On the other hand, Cho *et al.* (2014) present the opposite view of FAR and corruption. They posit that FAR indicates the quantity of resources local governments can distribute. If FAR is low, competition for public resources becomes intense because the quantity of resources to be allocated

⁵Although the ruling party does not occupy more than or the same as half of the local council seats, if it is the first party, the authors regard the ruling party to be the local council majority.

is small. To win the competition, private actors have incentives to provide private benefits to public officials. In contrast, if FAR is high, the incentives to involve in corruption decreases because competition for public resources is less intensified. Empirical studies of Korean local government corruption support this view (Jin, 2011; Cho *et al.*, 2014; Kim, 2017). Therefore, this study assumes the negative relationship between FAR and corruption.

3.4 Data and method

The hypotheses are tested using a fixed-effects (FE) model based on an unbalanced panel data set of 226 local governments during an 8-year period from 2010 to 2017 (or from 2009 to 2016). Panel data are useful for an empirical study because the effects of differences across individuals are distinguished from effects varying over time within individuals (Wang and Ho, 2010). As a regression analysis model for panel data, the FE model controls the endogeneity of time-invariant variables (e.g., gender, a county's distance from a river) on the panel regression model (Wooldridge, 2012; Hansen, 2021). To solve the endogeneity matter, this study adds year dummies to control the unobserved effects on the dependent variables.

The independent and control variables are regarded to affect dependent variables with a time lag. For instance, the political power shifts of 2010 would reduce the corruption of 2011 because the new local government head would take time to reduce corruption. This study reflects the time lag in its empirical analysis model; therefore, the independent and control variables are measured from 2009 to 2016. The number of samples should be 1,808 (= 8 years × 226 samples/year), but the empirical analysis model tests 1,781 samples because there were 23 values missing in the dependent variables and four values missing in the number of businesses.⁶ ROI data for Korean local governments were initially measured in 2010; consequently, the authors assumed that the ROI in 2009 (for the time lag effect on the corruption of 2010) would be the same in 2010. The similar problem exists in collecting GRDP data. Seoul Metropolitan city did not measure GRDP of Gu until 2009; therefore, the authors assumed the GRDP of Seoul's Gu (the number of Gu in Seoul: 25) in 2009 is the same in 2010. Table 1 shows the descriptive statistics of the variables.⁷

On average, all three types of corruption index in Korean local governments are in the early two-point range. The mean and standard deviations of the overall corruption index and the internal corruption index are nearly the same, but analysis of the correlation between the corruption indexes shows that the external corruption index is more similar to the overall corruption index (see Table 2). This may be because the weight on the external corruption index is larger than the weight on the internal corruption index in the estimation of the overall corruption index.

The correlation coefficient (0.0988) between the external corruption index and the internal corruption index implies that their correlation is positive but weak. The ACRC (2017) shows that there can be a big difference between the perceptions of outsiders and insiders on the corruption of local governments. For instance, Uiwang-si (Gyeonggi-do) is categorized as the least corrupt city in the external (anti-)corruption index report, while the city is categorized as the most corrupt in the internal (anti-)corruption index report. However, the difference between the external and internal corruption indexes is not large for every local government. Changneyong-gun (Gyeongsangnam-do) is ranked in the least corrupt group in the external (anti-)corruption index report and categorized as the second least corrupt group in the internal (anti-)corruption index report.

As Table 1 shows, many shifts in local government head are categorized as inter-party shifts. There were 95 inter-party shifts in local government head and 28 intra-party shifts in local government head in the 5th local election (June 2010). In the 6th local election (June 2014), there were 52 inter-party shifts in local government head and 41 intra-party shifts in local government head. Generally, party

⁶The ACRC did not estimate the anti-corruption indexes of the public agencies that was in the lowest corrupted group in the previous years from 2011 to 2013.

⁷The descriptive statistics are about the data included in the following empirical analysis model. Therefore, the number of observed data is 1,781.

Table 1. Descriptive statistics of the variables

Variables	Obs.	Mean	Standard deviation	Min	Max
Dependent variable					
Overall corruption	1,781	2.19	0.46	1.01	3.9
External corruption	1,781	2.05	0.53	0.89	3.8
Internal corruption	1,781	2.23	0.44	0.87	4.73
Independent variable					
Local government head shift ^a	1,781	0.53	0.50	0	1
Inter-party head shift ^b	1,781	0.36	0.48	0	1
Intra-party head shift ^c	1,781	0.17	0.38	0	1
Local council majority shift ^d	1,781	0.24	0.43	0	1
Control variable					
RHM ^e	1,781	0.70	0.46	0	1
Ratio of opened information (%)	1,781	95.96	3.90	74.82	100
Number of businesses	1,781	7,981.37	9,491.70	364	103,897
Population density (/km ²)	1,781	4,051.85	6,340.31	19.40	28,800.58
GRDP ^f (million won)	1,781	6,234,091	7,960,210	209,965	59,981,514
Financial autonomy rate (%)	1,781	61.24	11.17	28.3	91.8

^aFrequency of local government head shift (1): 940.

^bFrequency of inter-party head shift (1): 638.

^cFrequency of intra-party head shift (1): 302.

^dFrequency of local council majority shift (1): 432.

^eRelationship between local government heads and local council majorities.

^fGross regional domestic product.

Table 2. Analysis results of correlation between the corruption indexes

	Overall	External	Internal
Overall corruption index	1.0000		
External corruption index	0.9389***	1.0000	
Internal corruption index	0.3638***	0.0988***	1.0000

*** $P < 0.001$ (two-tailed).

power shifts do not happen often in Korean local elections. However, considering the no-shift (re-election) of local government heads and local council majority shifts (432/1,781), 100 local governments (about 42% of the total) are located in Yeong-nam (Busan, Daegu, Gyeongsang provinces) and Ho-nam (Gwangju and Jeolla provinces), where one party has dominated for a long period.⁸ In Yeong- or Ho-nam, inter-party local government head shifts mostly happen when at least one of the incumbent or new local government head is independent. Although weaker than Yeong- or Ho-nam, regionalist politics also exist in other local areas.⁹ This might be one of the reasons why the mean value of the RHM dummy is 0.7.

ROI is 95.96% on average,¹⁰ and most local governments open up nearly 100% of their information to those who want to see the data of their work. On the one hand, the values of the number of businesses, population density, and GRDP are too large; hence, the authors log-convert the three variables. The three

⁸The major parties of South Korea have monopolized political power in certain regions because of the regionalism politics, which is rooted in inter-regional imbalances in level of industrialization (Kim, 1991). Investment and construction of SOC was concentrated in the Seoul Metropolitan areas and Yeong-nam regions (Kim, 1991). Even after Korea was democratized in 1987, the regionalism politics continuously deepened (Kang, 2011). Each candidate running in the 1987 presidential election had his own local political base. Roh Tae-woo was based in Daegu and Gyeongbuk (TK), Kim Young-sam in Busan, Ulsan, and Gyeongnam (PK), Kim Dae-jung in Ho-nam (Gwangju and Jeolla provinces), and Kim Jong-pil in Chungcheong provinces. Since the merger of three parties (Roh Tae-woo, Kim Young-sam, and Kim Jong-pil), the regionalism politics was made clear. Ho-nam voters support the Democratic party of Kim Dae-jung and its subsequent parties, and Yeong-nam voters mainly support the Conservative parties.

⁹For example, the conservative party dominates in the military border regions with North Korea.

¹⁰The mean value of ROI '95.91' (%) is measured by supposing the ROI of 2009 as the same in 2010.

variables show very big deviations. The minimum value of the number of businesses in a local area is 364, while the maximum is 103,897. The minimum value of population density is 19.40, while the maximum is 28,800.58. The minimum value of GRDP is 209,965, while the maximum is 59,981,514. These variables are large in cities of the Seoul Metropolitan area, and small in rural areas.

This implies there are big differences between city (in particular the Seoul Metropolitan area) and rural areas. However, city regions cannot be thought to be advantageous compared to rural areas in the aspect of FAR. The FAR of some city regions is lower than the average. Some local governments of the Seoul Metropolitan area have lower than average FAR because the proportion of the central government's subsidies to the total local government budget is larger in the rural areas or non-Seoul Metropolitan areas than for city regions or in the Seoul Metropolitan area. In other words, there also exist large differences in financial independence between city and rural areas.

4. Empirical analysis results

Table 3 presents the empirical analysis results of the FE models. The overall and external corruption are negatively, but not significantly, associated with any type of political power shifts, while the internal corruption has a significant negative association with the change of local government head. However, the internal corruption has a significant positive association with the local council majority shift. Table 3 also shows that intra-party shift has significantly greater negative effects (about -0.050) on corruption than inter-party shift (about -0.044). The authors conduct an F -test to see whether the effects of intra-party shifts are significantly larger. The F -test revealed there is no significant difference between the effects of inter-party and intra-party shift. Among control variables, FAR has significant positive associations with the overall and external corruption; logged estimates for GRDP have a significant negative association with internal corruption. Other control variables have no significant association with the dependent variables. Thus, among our hypotheses, only the hypothesis of negative effects of shifts in the local government head on the internal corruption is accepted.

5. Discussion and conclusion

Elections provide opportunities to disclose government corruption and remove politicians who are directly involved in corruption scandals or fail to control the corruption of non-elected bureaucrats.

Table 3. Empirical analysis results by an FE model

Dependent variables	Overall		External		Internal	
Local government head shift	-0.030		-0.023		-0.047**	
Inter-party head shift		-0.023		-0.019		-0.044*
Intra-party head shift		-0.040		-0.030		-0.050*
Local council majority shift	-0.019	-0.021	-0.029	-0.030	0.057*	0.056*
RHM ^a	-0.016	-0.014	-0.006	-0.005	-0.039	-0.038
Ratio of opened information	-0.004	-0.005	-0.004	-0.004	-0.001	-0.001
LENB ^b	-0.020	-0.020	-0.029	-0.029	0.000	0.000
LEPD ^c	-0.031	-0.028	-0.057	-0.055	-0.076	-0.074
LEGRDP ^d	-0.049	-0.049	-0.013	-0.013	-0.171*	-0.171*
Financial autonomy rate (Year dummies included)	0.009***	0.009***	0.015***	0.015***	-0.003	-0.003
Constants	3.331**	3.319**	2.574	2.566	5.878***	5.874***
Observations	1,781	1,781	1,781	1,781	1,781	1,781
R^2 within	0.5866	0.5867	0.6077	0.6078	0.1450	0.1450
R^2 between	0.2634	0.2580	0.3153	0.3108	0.0001	0.0001
R^2 overall	0.4966	0.4970	0.5112	0.5114	0.0107	0.0109

^aRelationship between local government heads and local council majorities.

^bLogged estimates for number of businesses.

^cLogged estimates for population density.

^dLogged estimates for gross regional domestic product.

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (two-tailed).

While previous studies have focused on the effects of electoral competition on corruption, this study focuses on the political power shifts, the results of electoral competition, as the determinants of corruption. We subdivide the type of political power shifts as the shifts in individual local government head, the ruling party shift, and the shift in the local council majority. With a panel data set of Korean local governments, we tested the hypotheses that these three types of political power shifts reduce the degree of corruption – external, internal, and overall – by an FE model. We confirmed that the shift in individual local government head reduces the internal corruption significantly; however, not the other types of corruption and all other hypotheses are rejected.

The empirical analysis results imply that the attempts the new local government heads make for improving the degree of corruption are effectively delivered to the insiders, not the citizens. In addition, the results show that political parties fail to control or check the local governments in Korea. This phenomenon indicates that Korean party democracy is not solid in the unit of local government even though political parties should be the basic institutions to control the government in democracy (Schattschneider, 1942; Dalton and Weldon, 2005). The authors speculate the following reasons might result in the weak effects of party power (shifts) on corruption in Korean local government.

One reason might be that Korean local governments operate a ‘strong mayor-weak council’ model (Choi, 2016). Local council members are supported by the local council’s administration bureau. The problem is that the bureau staffs are employed and managed by the executive branch (Kwon, 2011; Shin, 2015). They are also supposed to go back to the executive branch. Therefore, these local council bureau staffs are naturally wary of taking action that may disadvantage the executive branch. Local council members have difficulty checking the executive branch in this environment. The small size of the local council bureau is also an issue. For instance, there are 37 Suwon-si (city) council members, while there are only 11 members of staff supporting the council members in policy- or law-making. Suwon-si is the most populated local area in South Korea¹¹; consequently, the number of council staff is viewed as too small. This is contrasted to a National Assembly member who can personally employ nine members of staff. To solve these problems, the Local Autonomy Act¹² was drafted to give the personnel management authority of the local council staff to local council heads so the local council can employ policy-expert staff within half the number of local council members.¹³

Another reason might be that local businessmen capture local elected officials. Regardless of which political party they belong to, local government heads or local council members occasionally participate in meetings with interest groups, local news media owners,¹⁴ and other kinds of local elites. Most of all, most of local politicians were born, grew up, or have worked in the local area. While living in the area, local elites naturally belong to the personal network with private actors.

The problem of weak party and strong closed local elite network happens because citizens’ participation in local politics and public administration is deficient. Only a few citizens are interested and take part in local politics, while many citizens do not know how local governments operate. This is also the reason the attempts for improving the corruption are not delivered to the citizens beyond bureaucrats and local elites form their own closed network. Consequently, citizens should be more interested in monitoring local governments.

This issue is not just Korea’s problem. The control of citizens on local government is also weak in USA and Japan, which are the role models for Korean (local) politics and public administration, although the two countries have developed the institutions for citizens’ participation (Chun, 2008).

¹¹The population of Suwon-si is larger than that of Ulsan Metropolitan city.

¹²The changed Local Autonomy Act is supposed to be executed beginning 13 January 2022.

¹³However, the increase of policy-expert staff is not enough to keep local government in check. The authors believe one local council member can employ personal staff like National Assembly members. Corruption matters should be detected broadly and precisely; therefore, it is difficult for a local council member (in particular, minor opposition party member) to detect a matter of corruption without personal staff. More active attempts to improve local councils’ and parties’ abilities should be discussed and introduced.

¹⁴Many local news media owners are the owners of construction businesses, which should be highly regulated by local governments.

In Japan, national government led the reforms of local government system, and it was far from democratic values or the control of citizens (Ueyama, 1999; Chun, 2008). Even in USA, where state and local governments were developed prior to the federal government, the federal government power is increasingly dominant over state and local governments and people are more interested in the national rather than regional issues (Chun, 2008). This means citizens' participation is not improved by the institutions only. The incentives for taking part in the institutions should be improved. Future research should focus on the incentives for motivating participation in local politics and public administration. Without the discussion regarding the incentives, the studies of effects of electoral competition, party system, or political power shifts on controlling corruption cannot work to improve the issue of corruption practically. We encourage other scholars to apply the hypotheses of this study to other countries and complement the theoretical gap of incentives for improving citizen participation in local governance.

Conflict of interest. No potential conflict of interest was reported by the authors.

Supplementary material. The supplementary material for this article can be found <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi%3A10.7910%2FDVN%2F2QJKP1&version>

References

- Alt JE and Lassen DD (2003) The political economy of institutions and corruption in American states. *Journal of Theoretical Politics* 15, 341–365.
- Alt JE and Lassen DD (2008) Political and judicial checks on corruption: evidence from American state governments. *Economics & Politics* 20, 33–61.
- Andersen TB (2009) E-Government as an anti-corruption strategy. *Information Economics and Policy* 21, 201–210.
- Bardhan P (1997) Corruption and development: a review of issues. *Journal of Economic Literature* 35, 1320–1346.
- Batzilis D (2019) Electoral competition and corruption: evidence from municipality audits in Greece. *International Review of Law and Economics* 59, 13–20.
- Bauhr M and Grimes M (2017) Transparency to curb corruption? Concepts, measures and empirical merit. *Crime, Law and Social Change* 68, 431–458.
- Begovic B (2005) Corruption: concepts, types, causes and consequences. *Documentos* 26, 1–8.
- Bliss C and Di Tella R (1997) Does competition kill corruption? *Journal of Political Economy* 105, 1001–1023.
- Cho CL, Lee H and Kim JH (2014) Corruption and gender: exploring the determinants of local governments' corruption. *Journal of Governmental Studies* 20, 89–121 (in Korean).
- Choi JH (2016) South Korea's diversification on the institutional form of local government: essay approach. *Journal of Local Government Studies* 28, 87–111 (in Korean).
- Choi JH (2018) Issues on local elections in Korea: focusing on strengthening policy election. *The Korea Local Administration Review* 32, 3–32 (in Korean).
- Chun YP (2008) Seeking alternatives for reinventing Korean local autonomy: lessons from the US and Japan. *Korean Journal of Public Administration* 46, 225–254 (in Korean).
- Colaresi M and Thompson WR (2003) The economic development–democratization relationship: does the outside world matter? *Comparative Political Studies* 36, 381–403.
- Dahl R (1971) *Polyarchy: Participation and Opposition*. New Haven, CT: Yale University Press.
- Dalton RJ and Weldon SA (2005) Public images of political parties: a necessary evil? *West European Politics* 28, 931–951.
- Damania R and Yalcyn E (2008) Corruption and Political Competition. *Economics Discussion Papers*, 2008-7, 1–13.
- Diamond L, Linz JJ and Lipset SM (1995) *Politics in Developing Countries: Comparing Experiences with Democracy*. Boulder, CO: Lynne Rienner.
- Ferraz C and Finan F (2011) Electoral accountability and corruption: evidence from the audits of local governments. *American Economic Review* 101, 1274–1311.
- Glaeser EL and Saks RE (2006) Corruption in America. *Journal of Public Economics* 90, 1053–1072.
- Golden MA and Chang EC (2001) Competitive corruption: factional conflict and political malfeasance in postwar Italian Christian democracy. *World Politics* 53, 588–622.
- Hansen BE (2021) Econometrics. Available at <https://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics.pdf>.
- Im T, Campbell JW and Cha S (2013) Revisiting Confucian bureaucracy: roots of the Korean government's culture and competitiveness. *Public Administration and Development* 33, 286–296.
- Jain AK (2001a) Corruption: a review. *Journal of Economic Surveys* 15, 71–121.
- Jain AK (2001b) Power, politics, and corruption. In Jain AK (ed.), *The Political Economy of Corruption*. London and New York: Routledge, pp. 15–22.

- Jang S** (2010) Exploratory research on the determinants of local government integrity. *Korean Society and Public Administration* **21**, 165–192 (in Korean).
- Jin J** (2011) Female civil servant and anti-corruption in government. *Korean Corruption Studies Review* **16**, 1–20 (in Korean).
- Johnston M and Kpundeh SJ** (2002) The measurement problem: a focus on governance. *Forum on Crime and Society* **2**, 33–44.
- Kang WT** (2011) Formation of political cleavage in South Korea: application of the Lipset–Rokkan model. *Korean and World Politics* **27**, 99–129 (in Korean).
- Kim MH** (1991) *A Study on Political Cleavage in Korea: Structural Approach to the Political Process of the Regional Cleavages* (in Korean) (Doctoral dissertation). Seoul National University, Seoul, South Korea.
- Kim MG** (2013) The causes and effects of divided local government (in Korean). *The Journal of Political Science & Communication* **16**, 89–113.
- Kim A** (2017) A study on effects of the participatory budgeting level on reduction in corruption in local governments. *The Korean Journal of Local Government Studies* **21**, 117–155 (in Korean).
- Klitgaard R** (1988) *Controlling Corruption*. Berkeley, California: University of California Press.
- Kwon YJ** (2011) A study on the solution for enhancing the legislative professionalism of Korean local council: focused on the independence of the personnel power over local council staff. *Korean Public Personnel Administration Review* **10**, 1–31 (in Korean).
- Lindstedt C and Naurin D** (2010) Transparency is not enough: making transparency effective in reducing corruption. *International Political Science Review* **31**, 301–322.
- Montinola GR and Jackman RW** (2002) Sources of corruption: a cross-country study. *British Journal of Political Science* **32**, 147–170.
- Myerson RB** (1993) Effectiveness of electoral systems for reducing government corruption: a game-theoretic analysis. *Games and Economic Behavior* **5**, 118–132.
- Nyblade B and Reed SR** (2008) Who cheats? Who loots? Political competition and corruption in Japan, 1947–1993. *American Journal of Political Science* **52**, 926–941.
- Olken BA** (2007) Monitoring corruption: evidence from a field experiment in Indonesia. *Journal of Political Economy* **115**, 200–249.
- Pellegrini L and Gerlagh R** (2008) Causes of corruption: a survey of cross-country analyses and extended results. *Economics of Governance* **33**, 245–263.
- Rose-Ackerman S** (1996) Democracy and ‘grand’ corruption. *International Social Science Journal* **48**, 365–380.
- Rose-Ackerman S** (1998) Corruption and development. In Pleskovic B and Stiglitz JE (eds), *Annual World Bank Conference on Development Economics 1997*. Washington, DC: World Bank, pp. 35–57.
- Schattschneider EE** (1942) *Party Government*. New York, NY: Rinehart.
- Schedler A, Diamond LJ and Plattner MF** (eds) (1999) *The Self-Restraining State: Power and Accountability in new Democracies*. Boulder, CO: Lynne Rienner Publishers.
- Schleiter P and Voznaya AM** (2014) Party system competitiveness and corruption. *Party Politics* **20**, 675–686.
- Scully GW** (1991) Rent-seeking in US government budgets, 1900–88. *Public Choice* **70**, 99–106.
- Shin H** (2015) Discussion on restructuring organization composition of local government. *Korean Journal of Local Government & Administration Studies* **29**, 23–49 (in Korean).
- Sun Y and Johnston M** (2009) Does democracy check corruption? Insights from China and India. *Comparative Politics* **42**, 1–19.
- Tanzi V** (1995) Corruption: arm’s-length relationships and markets. In Fiorentini G and Pelzman SM (eds), *The Economics of Organised Crime*. Cambridge, UK: Cambridge University Press, pp. 161–181.
- Tavits M** (2007) Clarity of responsibility and corruption. *American journal of political science* **51**, 218–229.
- The Anti-Corruption & Civil Rights Commission** (2012) *Integrity Assessment (IA) for public institutions* (in Korean).
- The Anti-Corruption & Civil Rights Commission** (2014) *Integrity Assessment (IA) for public institutions* (in Korean).
- The Anti-Corruption & Civil Rights Commission** (2017) *Integrity Assessment (IA) for public institutions* (in Korean).
- The Anti-Corruption & Civil Rights Commission** (2018) *Integrity Assessment (IA) for public institutions* (in Korean).
- Treisman D** (2000) The causes of corruption: a cross-national study. *Journal of Public Economics* **76**, 399–457.
- Ueyama S** (1999) 「行政経営」の時代—評価から実践へ—. Tokyo: NTT Publishing.
- Wang HJ and Ho CW** (2010) Estimating fixed-effect panel stochastic frontier models by model transformation. *Journal of Econometrics* **157**, 286–296.
- Wojtasik W** (2013) Functions of elections in democratic systems. *Political Preferences* **4**, 25–38.
- Wooldridge JM** (2012) *Introductory Econometrics: A Modern Approach*, 5th Edn. Boston: Cengage Learning.