Political Competition and Local Government Performance: Evidence from Indonesia

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Abstract

This paper analyses the impact of political competition on local government performance in Indonesia. This study uses a new database that covers 427 districts in Indonesia, from 2000 to 2013. In Indonesia, local governments are largely responsible for fulfilling basic service delivery and, in this regard, they are extremely powerful. Political competition is measured using the Herfindahl Hirschman Concentration Index for the district parliament election. This variable is potentially endogenous, because political competition is likely to be non-random and correlated with unobservable variables. To solve this problem, I use the lag of political competition for neighbouring districts within the same province, as well as the political competition from the 1955 general election, as instrumental variables for political competition. The degree of political competition has been found to boost real Regional Gross Domestic Product (RGDP) per capita by 1.9%. Furthermore, a one standard deviation increase in political competition would increase RGDP growth by approximately 0.81%. The results also support the findings of previous studies, which have found that stiffer political competition is associated with higher public spending (e.g. infrastructure spending) and pro-business policies.

Keywords: Political Competition, Regional Government, Indonesia, Economic Performance

JEL Classification: D78, H71, H72, O1

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1 Introduction

Economic theory often suggests that competition leads to improved economic welfare. Many studies consider this argument within a political context, asking whether competition in political systems, such as in parliaments or through elections, could benefit society (Downs, 1957; Becker, 1958; Stigler, 1972; Wittman, 1989).¹ However, the theory also suggests that the relationship between political competition and performance might be non-linear, although this depends on the level of competition (Besley et al., 2010).² Studies on the nexus between political competition and economic performance in developing countries remain limited, however. Furthermore, there is little evidence on the role of political competition on policies in developing countries or in countries that are transitioning towards democracy, such as Indonesia.

Indonesia initiated a democratic government after 32 years of President Suharto's regime. Research on this country have been increasing, especially since the country held its first general election (*Order Baru* or New Order) in 1999. After the New Order era, Indonesia entered the *Era Reformasi* (Reformation Era), which signifies the beginning of its transition from an authoritarian country into a democracy. During this period, Indonesia passed two laws to decentralise the fiscal and administrative policies. Local and district governments are now responsible for providing the majority of key public services, such as education, healthcare and infrastructure. Local government expenditure covers almost 75

While studies on local government expenditure in Indonesia have become more common, research is still limited. The majority of extant studies have examined the impact of directly elected local executives (*Pemilihan Kepala Daerah Langsung*/PILKADA) on local government performance, but have neglected the impact of political competition. Sjahrir et al. (2013) has investigated political budget cycles at the district level, and discovered a significant relationship between political budget cycles and mayoral

¹Many studies have been expanding this argument, for example Polo (1998) and Svensson (2005) which agree that political competitiveness affects policies and welfare.

²Other studies have examined the relationship between political competition and other outcome variables: for example, economic performance (Padovano and Ricciuti, 2009), government efficiency (Ashworth et al., 2014), land supply (Solé-Ollé and Viladecans-Marsal, 2012), political rent (Svaleryd and Vlachos, 2009) and service delivery (Arvate, 2013; Nye and Vasilyeva, 2015).

elections. Thus, the findings indicate that the current executive is likely to use their discretionary spending—such as financial assistance spending (*belanja bantuan sosial*) and financial assistance to sub-districts and donations (*hibah*)—to enhance their chances of being re-elected.

However, previous studies on Indonesia have focused on local elections and public service deliveries, although the majority did not address the potential endogeneity problems associated with political competition. Issues with endogeneity might arise due to the fact that districts with higher economic growth or income per capita might be correlated with the degree of political competition, and therefore bias the results. Previous studies have acknowledged this possible reverse causality between government performance and electoral competition (Besley et al., 2010; Padovano and Ricciuti, 2009).

To discuss the role of political competition on government performance and policy choice, I use data from three different sources. The first source is the district parliamentary election results from the General Election Commission of Indonesia (*Komisi Pemilihan Umum/KPU*). I also check the consistency of the data with data from Pemilu Asia.³ Regarding the socio-economic indicators, I use data provided by the INDO-DAPOER dataset, which has collected extensive information about province and district characteristics in Indonesia from 1976 to 2014. Finally, the dataset used in this study consists of 427 of the 508 districts in Indonesia, and was collected between 2000 and 2013.

Political party concentration index (Herfindahl-Hirschman Index (HHI)) is the measurement for political competition. I find that higher political competition is indeed associated with pro-business and growth policies. In terms of outcome variables, both log real Regional Gross Domestic Product (RGDP) per capita and RGDP growth increase with a higher degree of political competition. In terms of magnitude, a one standard deviation increase in political competition is estimated to increase RGDP per capita and RGDP growth by 1.9% and 0.81%, respectively. An increase in political

³Pemilu Asia is a non-governmental organisation (NGO) that aims to provide data for election results in several Asian countries, such as Indonesia, Malaysia, Singapore, India and Turkey. Their website can be accessed from this link <http://pemilu.asia/>

competition is associated with lower log owned source revenues per capita by 10.1%. This suggests that higher political competition reduces tax revenue, which explains the government's resulting pro-growth policy stance. Moreover, an increase in political competition by a one standard deviation is associated with higher infrastructure expenditure per capita by 17%.

To address endogeneity problems caused by the non-random political competition variable that could bias the estimation results, I employ an instrumental variable estimation strategy. I use the lag of the average political competition from the national parliamentary election in neighbouring districts within the same provinces, and of the historical political competition from the 1955 general election (which was held under democratic conditions prior to the Suharto regime) as the instruments. This strategy has also been used by (Svaleryd and Vlachos, 2009) and (Solé-Ollé and Viladecans-Marsal, 2012). The results from 2SLS supports the initial findings.

In further support of these findings, the effect of higher political competition is also statistically significant when I employ additional control variables or introduce new dependent variables. Moreover, I also use the vote margin between the winning party and the second-place party as an alternative explanatory variable for political competition. The results suggest that using the vote margin does not change the results.

The main contribution of this study is that it empirically tests the role of political competition in economic performance and policy choice (Besley et al., 2010; Padovano and Ricciuti, 2009; Ashworth et al., 2014; Svaleryd and Vlachos, 2009; Solé-Ollé and Viladecans-Marsal, 2012; Arvate, 2013; Nye and Vasilyeva, 2015), specifically in the developing country of Indonesia. Moreover, this study constructs and documents a new dataset on the degree of political competition in Indonesia at the district level since the reformation period. Using an Indonesia dataset provides an alternative approach to what is typically performed in political economy literature, especially regarding whether political competition is beneficial in a young democracy and a decentralised country. Previous studies have focused on well-established democratic countries, such as the US (Besley et al., 2010), Italy (Padovano and Ricciuti, 2009), Belgium (Ashworth et al., 2014), Sweden (Svaleryd and Vlachos, 2009) and Spain (Solé-Ollé and Viladecans-

Marsal, 2012). Similar studies have been conducted using developing countries, such as Arvate (2013) Brazil and Nye and Vasilyeva (2015) Russia. Therefore, this study widens the narrow research conducted on political competition in a developing country. Nevertheless, these countries have a different institutional set up than Indonesia, which might provide an alternative perspective for this particular context.⁴

This paper proceeds as follows: Section 2 reviews the relevant literature. section 3 provides the conceptual framework. Section 4 discusses the institutional background within both an administrative and political context. The data is explored in Section 5, and the results are discussed in Section 6. Finally, Section 7 concludes this study.

2 Literature Review

2.1 Effects of Political Competition

Several studies have analysed the consequences of political competition for government policies and rent extraction. For instance, Downs (1957) introduced the theory which states that the main objective for a government in a democracy is to implement policies that increase their votes. On the other hand, voters would vote for the government or party if their actions could increase their income utility in the future. However, Becker (1958) has suggested that there may be significant differences between political competition and democracy theories and what occurs in the real world. In theory, market and political competition increase efficiency. Nevertheless, in the real world, political competition is relatively difficult to achieve, and sometimes imperfect political competitiveness is necessary. Stigler (1972) has also suggested that the role of competition in politics is not to make voters happy, but to reduce unnecessary returns to the party. Finally, Wittman (1989) created a model in which an increase in competition for a political opponent diminishes the rent-seeking behaviour of politicians. Moreover, political competition also increases government efficiency.

A formal economic analysis supports the idea that public good provision and

⁴Other studies have also considered the impact of political competition on policy choices and economic performance in developing countries, for example Brazil (De Janvry et al., 2012; Chamon et al., 2018), (Yogo and Ngo Njib, 2018), India (Crosthair and Kambhampati, 2010; Nath, 2014), Mali Gottlieb and Kosec (2017) and Mexico (Díaz-Cayeros et al., 2014).

tax revenues are affected by electoral competition. In [Polo \(1998\)](#), there voters differ in regard to their opinions on redistributive policies. Furthermore, the candidates also have different interests and prefer to gain some utility upon election. Once a candidate is elected, they would retain the rent extraction. The study suggests that this problem could be reduced through greater political competition. [Svensson \(2005\)](#) has further suggested that electoral competitiveness reduces opportunistic behaviour by the government and increases discipline. Moreover, this study has also found that competition between public agencies could reduce the cost of policies and make them more efficient. The empirical results indicate that the degree of political competition and ethnic polarisation increase government spending, with lower public goods provision.

The main motivation for this study is [Besley et al. \(2010\)](#), which investigated the effect of the degree of political competition on both policy and economic growth. Their theoretical model suggests a non-linear relationship between political competition and government policy, as well as also economic growth. As political competition decreases, there is less of an effect on policy. Moreover, political competition will have a greater impact in an intermediate interval. Under such conditions, both parties would increase the probability of implementing pro-growth policies to enhance their chances of winning votes. Finally, when it is too competitive, the effect on pro-growth policies will be deteriorating, if not ambiguous, as the weaker party will pursue rent-seeking policies.

Empirically, using U.S. data, [Besley et al. \(2010\)](#) have found that stiffer political competition is associated with pro-business and growth policies, such as higher infrastructure spending, relative to total government expenditure, lower tax revenue (as a percentage of state personal income) and the existence of a law concerning an individual's right to work. This study also addresses the endogeneity problems that stem from the political competition variable. The instrument variable for political competition used in this study is the 1965 Voting Right Act (VRA).

In addition to [Besley et al. \(2010\)](#), extensive empirical studies have been conducted on political competition in relation to policy outcomes. [Padovano and Ricciuti \(2009\)](#), for example, analysed the consequences of political competition and economic per-

formance in Italy after the 1955 institutional reforms, and has found that political competition increases economic performance. On the other hand, stiffer political competition reduces spending on healthcare and government administration. The study further argues that spending, for both sectors, tends to be wasteful and inefficient. An increase in political competition is estimated to increase the growth rate by 0.9%. Other studies, for instance [Ashworth et al. \(2014\)](#), have verified that electoral competitiveness is associated with efficiency, specifically regarding the local government in Flanders.

Moreover, [Fiva and Natvik \(2013\)](#) explored the effects of political competition on investment in public good provisions. This study used the neighbouring vote share within the same municipality as the variable. [Svaleryd and Vlachos \(2009\)](#) has found that political competition in Sweden and local media coverage reduces the political rents between the local governments. To address endogeneity concerns, this study used historical vote patterns in national elections, and the vote margin in neighbouring districts, as variables for district political competition. Political competition also affects government policy on land. [Solé-Ollé and Viladecans-Marsal \(2012\)](#) investigated the effect of political competition on land supply in Spain. The study has found that the closeness of an election affects the supply of new land designated for development. The study employed the same variables as a previous study by [Svaleryd and Vlachos \(2009\)](#), namely historical vote margin and provincial vote margin.

Previous studies heavily investigated the role of political competition in developed countries. However, studies that examine developing countries are limited. Nevertheless, one such study was conducted by [Nye and Vasilyeva \(2015\)](#); It examines the relationship between political competition and public goods provision in Russia. This study uses data from 74 Russian regions between 2004 and 2009 to determine whether the way in which a governor is appointed affects public expenditure on education and health. The governors in Russia were chosen by the inhabitants between 1995 and 2005. However, in 2005, President Vladimir Putin changed the law, and governors have since been appointed by the federal government. Governors are reappointed if they have the support of the ruling party in parliament. According to this study, when there is monopoly of power in the parliament, with no strong opposition, government

spending on education and health decreases.

Another study by [Arvate \(2013\)](#) has found that a higher number of candidates in municipality elections in Brazil is associated with increased public goods provisions. Greater political competition increases the number of students enrolled in primary school, the number of teachers, and the extent of immunisation. To address the endogeneity problem, this study introduces two dummy variables for the number of seats in the local legislative body based on population size: medium size (for municipalities with 11 to 30 seats) and larger district (for municipalities with 31 or more seats). The reasoning behind these variables is based on the federal law, which controls the relationship between the number of seats on the local parliament and the size of the local population.

From the above discussion, it can be seen that an abundance of evidence exists which suggests that political competition affects government policy choices and rent extraction behaviour. Nevertheless, most of the existing studies focus on political competition and its impact in developed, democratic countries. Debate about the impacts of democratisation which is not always a panacea. More newly democratised countries might experience difficulties during their transition period. Moreover, political competition is not always beneficial ([Becker, 1958](#)) and, in extreme cases, can even reduce pro-growth policies ([Besley et al., 2010](#)). Therefore, the objective of the present study is to determine whether political competition similarly affects more newly democratised, developing countries, such as Indonesia.

2.2 The Political Economy of Indonesia

Political economy literature related to Indonesia is still limited, and literature on the effects of electoral competitiveness on policy and economic outcomes is entirely non-existent. Rather, the extant literature has focused on the effect of direct mayoral elections and political business cycles, as well as local executive behaviour after the decentralisation period. For example, [Sjahrir et al. \(2013\)](#) analysed political budget cycles at the district level. After the decentralisation era, in 2001, local governments were elected through direct elections; This study investigates whether incumbents tend

to increase their discretionary expenditure during an election year. They find political business cycles with direct mayoral elections. However, there is no evidence of political business cycles in districts where the mayor was appointed by the local parliament.

Skoufias et al. (2014) has also found that direct mayoral elections have a positive effect on district expenditures and revenues, as well as human development outcomes. Moreover, directly elected local governments are more responsive to health issues, because voters more highly demand health service delivery. The composition of district expenditure changes during an election year, as well as before an election period: It has been argued that this is a means for the incumbent to buy voter support. Similarly, Skoufias et al. (2011) has also found that direct mayoral election affects the composition of public spending. However, this finding is mainly the result of an increase in expenditure outside Java and Bali, as well as because incumbents tended to spend more during their administration to enhance their chance of being re-elected. In addition to the previous argument, the study has found that, before a direct election year, district governments tend to increase their spending on public works.

Another factor that affects the provision of public goods is the quality of the leader. Martinez-Bravo (2014) analysed the appointment procedures to elect village leaders and their impacts. Village leaders inherited from the authoritarian regime are associated with the presence of voting suppression and fraud. Moreover, those who were appointed by Suharto's regime tend to be associated with increased clientelistic spending. Based on this model, appointed village leaders have a larger incentive to force voters to vote for their party during the general election, because if their party wins the election, there is a greater probability that village leaders will be re-appointed.

Unlike previous studies, political competition somehow has a negative association with criminal violence, such as the risk of sea piracy. Daxecker and Prins (2016) investigated the impact of electoral competition and sea piracy in Indonesia. Pirate activities depend on their agreement with local law enforcement agents, police, and elected officials. Therefore, when a reformist comes to the office, pirate criminal activity increase. This is because the pirates feel threatened by possible reforms to the fishing sector. Empirically, the study has found that close elections increase the risk of piracy

by 0.08 of a point.

The aim of the present research is to fill the gap in the political economy literature on Indonesia, especially research related to political competition and government performance. Unlike previous studies, this study focuses on the impact of district parliamentary political competition on local government performance. Previous studies have primarily investigated the mayor's role in delivering necessary services through a direct mayoral election. However, the mayor alone cannot implement a policy without enough support from parliament. Hence, I want to determine whether districts with increased political competition push their mayors to implement policies that will improve the economy and public spending. This study also extends the analysis on whether, after the decentralisation era, there has been any improvement to political competition in Indonesia.⁵

3 Conceptual Framework

Based on the previous literature related regarding the association between local government performance and political competition, I explored the following two hypotheses. The first investigates whether political competition enhances economic performance. The second hypothesis proposes that government policy is improved by political competition.

There are different forces at play between the effects of political competition and policy choices. First, as documented in [Besley et al. \(2010\)](#) and [Padovano and Ricciuti \(2009\)](#), political competition is associated with higher income per capita and income per capita growth. Conversely, [Man \(2016\)](#) has suggested that, in a cross-country panel, the empirical relationship between political competition and economic growth is inconclusive. The study has found that the political competition variable displays a U-shaped partial relationship with growth. Furthermore, [Acemoglu and Robinson \(2006\)](#) has suggested that political competition can cause political instability and reduce

⁵A previous study investigated the role of fiscal decentralisation on public good provision in Indonesia. Moreover, [Pal and Wahhaj \(2017\)](#) has found that fiscal decentralisation is associated with higher spending on social infrastructure. However, the main objective of this study was to explore the role of fiscal decentralisation; It does not elaborate the impact of political competition on government spending.

government incentives to implement reforms that enhance economic growth.

In the context of Indonesia, it is unclear whether political competition enhances economic growth or, on the other hand, may lead to political instability. However, political competition - and political decentralisation – is likely to decrease the incentive to engage in rent-seeking behaviours, since it is easier for voters to punish incumbents who perform poorly. When voters are given several options in an election, politicians need to implement policies that will benefit voters' welfare. In the present study, I predict that political competition will drive the government to promote pro-growth policies, and therefore increase GDP per capita. Given the fact that political competition in a newly democratised country like Indonesia would also increase political instability in that country, it might provide the opposite result as [Besley et al. \(2010\)](#) and [Padovano and Ricciuti \(2009\)](#).

Hypothesis 1 *Political competition is associated with higher economic performance.*

Another potential implication of increased political competitiveness is that it increases pressure on the government to provide more public goods. As previously mentioned, political competition is associated with government policies. In general, higher political competition increases the provision of public goods, such as education and health expenditure in Russia ([Nye and Vasilyeva, 2015](#)), number of teachers, students and free immunisation in Brazil ([Arvate, 2013](#)), spending on infrastructure in the US ([Besley et al., 2010](#)), public provision in Italy ([Padovano and Ricciuti, 2009](#)), government efficiency in Flanders ([Ashworth et al., 2014](#)), and land supply in Spain ([Solé-Ollé and Viladecans-Marsal, 2012](#)).

Notwithstanding, higher spending is not always associated with improved government performance, because policy-makers can spend more money in unproductive sectors (e.g. civil servant salaries or general administrative spending), which is associated with rent-seeking behaviour. In this context, I want to specifically observe the impact of political competition on government expenditures by sectors. Local governments in Indonesia have more power and also responsibility with regard to public goods provision. Therefore, an increase in government spending on infrastructure, health and education is associated with more public goods. For example,

local governments are responsible for providing health care facilities, improving basic education services and social and public infrastructure. Thus, I assume that as political competition increases, pressure on the government to provide more public goods also increases.

Hypothesis 2 *Political competition increases public goods provision.*

It is also possible that higher spending on public goods provision is not associated with improved quality of public goods. Unlike other developed countries, where the initial quality of the goods provided by the government is already good, Indonesia still has problems with infrastructure. Based on the Global Competitiveness Report, in 2018 Indonesia ranked 71st of 140 countries in terms of infrastructure development.⁶ Therefore, an increase in the provision of public goods is associated with better government policies.

4 Institutional Background

4.1 Administrative Context

During the almost three decades of President Suharto's administration, Indonesia's government was profoundly centralised and autocratic: everything was decided in the capital city. The Golkar party was the main ruling party, which competed—in a loose sense—with two weak opposition parties. Despite the predominantly centralised rule, Suharto did allow some local governments to perform limited political activities, in accordance with Law No. 5/1974. Even though this law provided a framework for decentralisation, lower levels of government possessed limited authority and power.

In 1999, following the regime change, two laws (Law No. 22/1999 on regional governance and Law No. 25/1999 on regional fiscal balance) on decentralisation were passed by the government. These laws made district governments responsible for basic services, integrated the de-concentrated structure into local government and provided them with grants and natural revenue sharing (Skoufias et al., 2014).⁷

⁶See <http://reports.weforum.org/global-competitiveness-report-2018/>.

⁷In 2015, the funds transferred from the central government to provincial and district governments was approximately 31.7% of the total central government expenditure (Ministry of Finance, 2016).

[Insert Figure 1 here]

[Insert Table 1 here]

The fiscal and political decentralisation took effect in January 2001. Administrative decentralisation involved the granting of autonomy to two levels of the government: provinces and *Kabupaten* and *Kota* (i.e. regencies and cities: for simplicity, referred to as districts or local governments). Administrative decentralisation preceded an increase in the number of local governments, from 340 in 1999 to 514 in 2014 (Ministry of Home Office, 2014) (See Figure 1 and Table 1). Most of the newly formed districts are located outside the island of Java. In total, 174 new districts have been formed since the decentralisation period. Districts were primarily split due to fiscal incentives, although political division and interest in natural resources also played a part in the division (Fitriani et al., 2005). District proliferation gives new districts the power to manage their own revenues and expenditures. This mechanism helps rich districts that had previously depended heavily on parent districts to use their own resources independently.

Own-source revenues (*Pendapatan Asli Daerah*/PAD) and the transfer from central government (*Dana Perimbangan*) comprise local governments' revenue sources. The former is collected directly by local governments and comes from taxes and levies on businesses, service activities and vehicle ownership, while the latter is collected by the central government and comes from taxes and levies on natural resource extraction activities and personal income tax (World Bank, 2007). In the past five years, the proportion of PAD to total local governments' revenues was approximately 17% (Ministry of Finance, 2016).

Central government transfers form a large portion of local governments' total revenue. It comprises approximately three-quarter of a district's total revenue (Ministry of Finance, 2016). Government transfers assume three forms: the general allocation fund (*Dana Alokasi Umum*/DAU), the special allocation fund (*Dana Alokasi Khusus*/DAK), and the shared revenues fund (*Dana Bagi Hasil*/DBH). The DAU mainly covers civil servants' salaries. The DAK and the DBH provide funds for development activities. The difference between the DAK and the DBH is that the DAK is an earmarked budget,

which means that the budget is allocated for specific spending, while the DBH is not. Only districts in which many people pay income tax and districts with abundant resources can earn a significant amount of DBH (World Bank, 2007). In 2015, the DAU's share of the national budget was approximately 17.3%. For the DAK and the DBH, the share was approximately 1.7% and 6.2%, respectively (Ministry of Finance, 2016).

Following decentralisation, district governments became responsible for infrastructure, education, health, agriculture, trade and industry, transportation, the labour market, and the environment. In education, district governments are responsible for the first nine years of education (six years of primary school and 3 years of secondary education). In the health sector, local governments are responsible for providing primary health services and employing health workers. On average, district government expenditure covers almost 75

4.2 Political Context

The Indonesia parliament system uses proportional representation, in which citizens can vote for a party or specific candidates within a party. In the 1999 general election, 48 parties competed in the national and local elections. In the national general election, five parties stood out: *Partai Demokrasi Indonesia-Perjuangan* (PDIP-P) won the election by 34

The reforms made to Indonesia's administration occurred simultaneously with enormous development in politics at the local level. Before 1999, local executives and local members of parliament at the district and provincial levels (*Dewan Perwakilan Rakyat Daerah*/DPRD) were chosen by the central government. The government changed this procedure gradually, by holding direct elections to choose local members of parliament and district heads/mayors (known as *bupatis* and *walikotas*). In 2004, the government introduced a new law on local direct elections to strengthen local accountability. In 2005, the first direct mayoral election was held in Indonesia. In June 2005, 266 local governments (49% of total local governments; 11 provinces and 214 districts) participated in democratised elections. By the end of 2009, around 80% of the local governments held their own direct elections. These reforms aimed to increase

the accountability of all local governments, because local leaders had previously been appointed by local parliaments.

Indonesia held its first direct presidential election in 2004, with Susilo Bambang Yudhoyono and Jusuf Kalla appointed as the first directly elected President and Vice President of the Republic of Indonesia. In the same year, 24 parties competed in the parliamentary election. During the 2009 general election, 44 parties participated in the election. Until 2014, years after the political transition, Indonesia had only four legislative elections (1999, 2004, 2009 and 2014) and three direct presidential elections (2004, 2009 and 2014), although it had numerous direct local elections to choose local leaders.

5 Data and Specification

The analysis was conducted using an unbalanced panel dataset for all districts in Indonesia, except for those located in NAD, DKI Jakarta, Papua and Papua Barat.⁸ The number of districts in this sample are 427 out of 508 districts, with many newly formed districts formed after 2001 (See Figure 1 and Table 1). Based on data availability, this study covers 14 years, from 2000 to 2013.⁹ Table 2 provides the summary statistics of the data in this study.

[Insert Table 2 here]

5.1 The Dependent Variables

I analysed seven separate dependent variables: (1) Log real Regional Gross Domestic Product (RGDP) per capita; (2) Log RGDP per capita growth; (3) Log own source revenues per capita; (4) Log total expenditure per capita; (5) log total infrastructure

⁸I excluded districts in the provinces of Nanggroe Aceh Darussalam, Papua and Papua Barat, because a significant amount of data was not available for the districts in these provinces. Moreover, DKI Jakarta was excluded because the districts in Jakarta are not autonomous. A previous study that used the same dataset, (Sjahrir et al., 2014), also excluded these districts for the same reasons.

⁹Most of the indicators in this study were collected from the INDO-DAPOER dataset that contains data, especially the socio-economic indicators for the district-level from 1976 to 2013. The data is accessible from this web page: <http://data.worldbank.org/data-catalog/indonesia-database-for-policy-and-economic-research>. This data was collected and shared by the World Bank group.

expenditure per capita; (6) log total education expenditure per capita and (7) log total health expenditure per capita. Some of these variables have been used in previous studies, such as: health expenditure variables by [Padovano and Ricciuti \(2009\)](#) and infrastructure expenditure in [Besley et al. \(2010\)](#). Moreover, real RGDP per capita and real RGDP per capita growth variables have been used in [Besley et al. \(2010\)](#) and [\(Padovano and Ricciuti, 2009\)](#).

[Insert Figure 2 here]

[Insert Figure 3 here]

The first dependent variable tested is the real district gross domestic product over total population (*RGDP per Capita*). Figure 2 depicts RGDP per capita trends, based on Indonesia's main Islands, from 2000 to 2013. It is evident that Kalimantan exhibits the highest RGDP per capita during the given time period relative to other islands. The mean RGDP per capita in Kalimantan between 2000 and 2013 was Rp9,816,667 (US \$755.13). Notably, Kalimantan possesses the largest reserves of energy resources in Indonesia.

Figure 4 depicts RGDP per capita by district in Indonesia. Kediri (RGDP per capita = Rp98,584,192 $\approx$ US \$7583.39) in East Java has the highest RGDP per capita. On the other hand, Halmahera Barat district (RGDP per capita = Rp247,913.22 $\approx$ US \$19.07) in Maluku is the district with the lowest RGDP per capita. Based on the summary statistics in Table 2, the mean RGDP per capita is Rp6,311,955 (US \$485.53) and the standard deviation is Rp6,603,461 (US \$ 507.95)

[Insert Figure 4 here]

[Insert Figure 5 here]

Real RGDP per capita growth (*growth*) was also used as a dependent variable. The mean value for RGDP per capita growth is 0.06 and the standard deviation is 0.06. Figure 3 depicts the trend of real RGDP per capita growth, where Labuhan Batu (North Sumatra Province) was the district with the highest real RGDP growth in 2008 (growth

= 1.99 percent). Pontianak (West Kalimantan), on the other hand, had the lowest real RGDP per capita growth in 2006 (growth = -0.78). Figure 5 provides the average growth by district in Indonesia. We can see that districts in East Kalimantan, several districts in Sulawesi, and parts of Riau have performed relatively better than their neighbours.

The next dependent variable used to capture locally generated government revenues is own source revenues per capita (*PAD*). Based on the statistics provided in Table 2, the mean value for this dependent variable is Rp120,202.9 (US \$9.24) and the standard deviation is Rp214,067.3 (US \$16.46).¹⁰ South Lampung district had the lowest own source of revenues per capita in 2000 (*PAD* = Rp1,726.51 $\approx$ US \$0.13). The district with the highest own source revenues was Tana Tidung district with Rp5,211,151 (US \$400.86) in 2011.

In terms of government expenditure, I used total government expenditure per capita and total government expenditure by sector. The mean for log total expenditure per capita is approximately 13.97 and the standard deviation is around 0.96. The last three dependent variables used are log total infrastructure per capita (mean = 11.88, s.d. = 1.50); log total education expenditure per capita (mean = 12.78; s.d. = 0.91) and log total health expenditure per capita (mean = 11.43, s.d. = 1.10). The share of total expenditure for infrastructure, education and health—relative to total government expenditure—is approximately 56.7%, which is quite substantial.¹¹

5.2 Explanatory Variables

Political competition measured in district parliaments are constructed using data from the General Election Commission of Indonesia (KPU) and Pemilu Asia, from 2000 to 2013. The data used comprise the vote shares for each party from the district parliament elections. As previously mentioned, Indonesia's electoral system is one of proportional representation. During the election, voters can vote for individual candidates or just the party. If voters choose to vote for the party, then the winning party will choose the member of parliament based on their rank in the party list.

¹⁰US \$1 $\approx$ Rp13000

¹¹Other government expenditures that are not used in this study include spending on agriculture (4%), administrative activities (31.7%), social protection (0.7%), goods and services (18.3%) and other spending (11.4%). The figures inside the parentheses represent the shares relative to total government expenditure.

Previous studies have used various approaches to define political competition: for example, the number of parties competing in the election (Polo, 1998; Arvate, 2013), the vote margin (Besley et al., 2010; Padovano and Ricciuti, 2009; Solé-Ollé and Viladecans-Marsal, 2012; Svaleryd and Vlachos, 2009) and political volatility (Ashworth et al., 2014). In this study, the main measure is the Herfindahl Hirschman Index (HHI), which is the sum of squares of the vote shares of each political party in the election at district d and time t , i.e. $\sum VS_{p,d,t}^2$. This variable reflects the strength of the party in the general election at the district level, as well as the political concentration in the district parliament.¹² Therefore,

$$\text{Political Concentration Index}_{d,t} = \sum VS_{p,d,t}^2 \quad (1)$$

where, *Political Concentration Index* _{d,t} is the political concentration index in district d at time t , which is equal to the Herfindahl Hirschman Index. Since I subtracted the HHI from 1, an increase in the size of the political competition, leads to a higher degree of political competition. For example, if the value of political competition is close to one, political competition is high. On the other hand, if the political competition value is close to zero, there will be less political competition in the district.

$$\text{Political Competition}_{d,t} = 1 - \text{Political Concentration Index}_{d,t} \quad (2)$$

As presented in Table 2, politics in Indonesia are relatively competitive, and the distribution is skewed to the right. The mean value of political competition in Indonesia is 0.81 and the standard deviation is 0.09. Districts with the highest degree of political competition are Sintang, Bulukumba, North Tapanuli, Humbang Hasundutan and South East Maluku (Political Competition = 0.94) in the 2009 general election. Tabanan has the lowest political competition variable: 0.24 in the 1999 general election.

¹² Another possibility is to use the vote share margin between the mayoral candidates. However, the effects of political competition using data collected from the mayoral election is not within the scope of this study. Nevertheless, several potential links may affect a mayor's policies. For example, stiffer political competition at the parliamentary levels will affect a mayor's policies. Mayors with strong parliamentary support will also exert more discretion over which policies they choose to implement. Nonetheless, in the robustness check I also included a number of covariates to address the role of local executive powers.

[Insert Figure 6 here]

[Insert Figure 7 here]

[Insert Figure 8 here]

Figure 6, Figure 7 and Figure 8 reveal that the degree of political competition varies over time. From Figure 6, it can be seen that, during the 1999 general election, districts in Bali and South Sulawesi exhibited the lowest degree of political competition (smaller than 0.5). The mean political competition in Bali was 0.33 in the 1999 general election. Similarly, the mean political competition in South Sulawesi was 0.43 in 1999. By 2009, districts in Bali still had the lowest political competition relative to other districts, and the mean of the variable was 0.75, which was lower than the average political competition throughout the country (political competition = 0.87). On the other hand, political competition in South Sulawesi in 2009 was 0.88, which was higher than the average political competition throughout the country.

These two provinces have a long history of voting for certain political parties. For example, South Sulawesi has close ties with the Golkar Party, since many major political figures in the Golkar party came from South Sulawesi, such as the former President, B.J. Habibie, from *Kabupaten* Pare-Pare. Moreover, the current Vice President, Jusuf Kalla, came from *Kabupaten* Bone and was a well-known entrepreneur in South Sulawesi and Eastern Indonesia before entering politics. Bali also has a strong alignment with the PDI-P and, as a result, the PDI-P is the winner in almost every general election.

In general, political competition in Java, Sumatra, Kalimantan and Indonesia is quite heterogeneous between elections and districts. This heterogeneity makes it possible to use fixed effects when conducting a regression analysis.

5.3 Specification and Identification

The objective of this study is to assess whether political competition produces more pro-development policies and better economic performance. Following Besley et al. (2010), the relationship between political competition and local government performance is modelled as follows:

$$Y_{d,t} = \beta + \delta Pol\ Comp_{d,t} + \gamma X_{d,t} + \theta_d + \vartheta_t + \epsilon_{d,t} \quad (3)$$

where $Y_{d,t}$ is the dependent variable in district d at time t , regressed on political competition ($Pol\ Comp$) and a vector of control variables (X). The dependent variables in this model are log own source revenues per capita, health expenditures relative to district total expenditures, education expenditures relative to district total expenditures, log of real income per capita and real district GDP growth.

$Pol\ Comp_{d,t}$ is political competition in district d at time t . The variable for political competition is time invariant within each election cycle. For example, the political competition for year 2000-2003 at district d would be the political competition from the 1999 general election. Similarly, the political competition for district d during years 2004-2008 would be the political competition from year 2004 and 2009 for $t = 2009-2013$.

One advantage of using the past election year is that it can mitigate the potential of reverse causality between political competition and dependent variables, because current government activities cannot affect past political competition. This is also the reason why the present study does not follow previous literature that used future political competition (Solé-Ollé and Viladecans-Marsal, 2012; Arvate, 2013).

Components that relate to a district government's ability to execute policies depend on the characteristics of the district, in terms of accessibility and possible scale economies. Therefore, several time variant control variables are included in this estimation. The controls include interpolated log of population, the urbanisation rate, population density, the literacy rate, the log of central government transfers, dummy variables for districts who have abundant natural resources, vote share for PDI-P and PPP.

I employed several control variables, in accordance with Clearly (2007), Ashworth et al. (2014) and Arvate (2013), subject to data availability. The logs of population and urbanisation rate are also included, because areas with larger populations and a higher degree of urbanisation affect the decisions made regarding public goods provision. For instance, districts with larger populations will require more infrastructure compared to districts with smaller populations. Population density is included to capture economies

of scale when providing public services (Oates, 1999). This is because each district government needs to implement a pro-growth agenda, and might end up investing more per unit of infrastructure or service because it would be operating in a smaller scale.

To capture fiscal capacity, the log of central government transfers and resource rich indicators are also included in the regression. Resource rich indicators is a binary variable for districts where one of their revenues come from natural resources, such as fishery, forestry, gas, mining, and oil. Any of these variables can be used as the indicator regardless of whether the district government has the fiscal ability to make improvements to public services. Districts that have abundant natural resources will be less dependent on the central government.

Literacy rate and vote shares for PDI-P and PPP are used to control for political and ideological influence. PDI-P is a nationalist party and PPP is an Islamic party. By including these two parties in the regression, we can capture whether ideological differences affect government policy choices.

The vector of controls is augmented with fixed effect θ_d and time effects ϑ_t . By using fixed and time effects, the political competition measures are differentiated across time and across districts. Therefore, it differentiates between unobserved fixed district characteristics and removes common time effects. In addition, robust standard errors are clustered at the district level.

The lag of log real district GDP per capita is also included to account for Solow convergence when district real GDP growth is the dependent variable. Theoretically, some districts exhibit a higher growth rate because they were initially poorer than other districts. Other controls would be mentioned in the specific regressions.

5.4 Instrumental Variables

Political competition is an endogenous variable and $Pol\ Comp_{d,t}$ may be correlated with $\epsilon_{d,t}$ in equation 3. This issue with plausibly biases the results from the OLS estimation. A potential reverse causality problem exists, because not only do the votes affect the dependent variables, but it is also possible that the dependent variables in the

estimation would affect the degree of political competition. For example, it is possible that a higher income would affect political competition. Moreover, the government could use spending to influence political competition. Therefore, an instrumental variable should be used to address this problem.¹³

In this study, I use two plausibly exogenous instruments for political competition. The first is the lag of neighbour political competition and the second is historical political competition in the 1955 general election, interacted with a time trend. Hence, the first stage estimation in this study will be:

$$Pol\ Comp_{d,t} = \alpha_{d,t} + Z_{1,d,t-1} + Z_{2,d,1955} * time\ trend + \gamma X_{d,t} + \theta_d + \vartheta_t + \mu_{d,t} \quad (4)$$

where $Z_{1,d,t-1}$ is the lag of political competition in the neighbouring districts within the same province during the election year t and $Z_{2,d,1955}$ is the historical political competition at district d and during the 1955 general election.

Lag of Neighbours Political Competition Following [Fiva and Natvik \(2013\)](#), I created the neighbouring political competition variable, which is computed from the HHI for the national parliamentary election results of neighbouring districts within the same province. A similar strategy was also employed by [Svaleryd and Vlachos \(2009\)](#) and [Solé-Ollé and Viladecans-Marsal \(2012\)](#). Indonesia has 34 provinces and approximately 514 districts, therefore one province has approximately 15 districts. To compute this instrument, I used the average of district political competition from the national parliamentary election results in all other districts in the provinces to which the districts d belong at $t-1$. Therefore, the instrument is calculated as follows:

$$Z_{1,d,t-1} = \frac{\sum_{n \neq d}^{P_d} Pol\ Comp_{n,t-1}}{P_{d,t-1}} \quad (5)$$

where P_d is the number of other districts in the province to which the district d belongs

¹³ Achieving credible exogenous variation in political competition for this study can be quite challenging. [Angrist and Krueger \(2001\)](#), [Angrist and Pischke \(2009\)](#), [Murray \(2006\)](#) and [Wooldridge \(2010\)](#) have argued that a good instrument should satisfy the conditions where: (1) uncorrelated with the error term $\epsilon_{d,t}$ in equation (3), (2) correlated with the explanatory variable ($Pol\ Comp$), and (3) not used as the explanatory variables in equation (3).

and $Pol\ Comp_{n,t-1}$ is the political competition from the national parliamentary election results of district n in year $t-1$.

The voters movement across different parties can be attributed to the general trends, which are exogenous to local politics. For instance, the policies made by the central government or local governments in neighbouring districts may affect the political preferences at the local level that is entirely unconnected to local politics. Hence, using the national parliamentary election results for districts within the same provinces will provide the plausibly exogenous variation for use as the instrument of district political competition. The underlying assumption here will be that a change in political competition at the national level for neighbouring districts will affect the degree of political competition at district d and have an orthogonal relationship to the policies of district d . More specifically, if political competition in a neighbouring district increases, political competition in the district d will also increase. Similarly, if neighbouring districts have lower political competition, hence the political competition of district d will decrease.

The idea behind using this instrumental variable is that votes in local elections are driven by local conditions and other external factors, as mentioned above. Studies by [Fiva and Natvik \(2013\)](#), [Svaleryd and Vlachos \(2009\)](#) and [Solé-Ollé and Viladecans-Marsal \(2012\)](#) have suggested that local election results determine the strength of political parties at the highest levels (e.g. province and central governments). In an Indonesian context, voters have different preferences for parties or candidates in the different levels of elections. [Liddle and Mujani \(2007\)](#) have observed that political figures shape voters' preferences in local elections in Indonesia. Voters in Indonesia are significantly attached to national leaders, which is unrelated to local politics. Therefore, a change in the political landscape at the national level would affect the political competition at the district levels, although it rarely affects local government policies due to decentralisation, and also local governments have more power in regard to decision-making and are more autonomous.

Due to district proliferation, which is potentially exogenous, the political dynamics of neighbouring districts will impact the government's ability to oversee natural

resources (Burgess et al., 2012) as well as conflict (Bazzi and Gudgeon, 2018), which could ultimately affect the outcomes and violate the exclusion restriction. In order to mitigate any violation of the exclusion restriction, additional robustness tests were conducted by including the resource rich indicators for the neighbouring districts as well as a dummy variable for the parent districts interacted with time trend. Moreover, another robustness check was conducted by excluding Java from the sample to estimate areas where the majority of district proliferation occurred after the decentralisation (See Figure 1). Moreover, the lag of the neighbouring political competition was used to mitigate the potential reverse causality between outcome variables and the instrument.

The mean for lag neighbouring HHI is 0.87 and the standard deviation is 0.10. Figure 9 is a scatter plot that illustrates the positive correlation between political competition and lag of neighbour HHI.

Historical Political Competition This paper uses political competition at the district level from the 1955 general election, since many scholars have noted that it was the fairer election after the country achieved independence and before Suharto's regime (Feith, 1957; Liddle, 2000). Approximately 28 political parties competed during the election, with around 91.5% voter turnout (Ricklefs, 2008).

Political partisanship is found to have a persistent pattern in the US (Kaplan and Mukand, 2011). Similarly, in Indonesia, the results of the 1999 general election had a robust relationship with the results from the 1955 general election (Liddle, 2000; King, 2003; Liddle and Mujani, 2007). For example, in the 1999 general election, the PDI-P party won in areas where PNI (Indonesian Nationalist Party) was the winner of the 1955 general election.¹⁴ There is also a persistent religious partisanship in Eastern Java; For example, the PKB (National Awakening Party), an Islamic party founded by NU (*Nahdatul Ulama*), won in areas where NU also won the 1955 general election. Therefore, political competition in 1955 can potentially be a credible predictor for current political competition.

To create this instrument, I followed the procedures outlined by Solé-Ollé and

¹⁴The party was founded by former President Sukarno, the father of former President Megawati, the chairman of the PDI-P party

Viladecans-Marsal (2012) and Svaleryd and Vlachos (2009).¹⁵ In previous studies, historical data was regressed in a cross-sectional analysis. Here, I interact the historical political competition and time trend to achieve the variation for the instrumental variable, and therefore am able to use time and district fixed effects for the analysis. The use of the interaction term generated a continuous difference-in-differences estimator that could identify the causal effect of time invariant variation from the 1955 political competition.

To check whether this instrument is considered exogenous, the conditional covariance between historical political competition and ϵ should be zero. This may not satisfy the assumption if the current districts' socio-economic indicators and political environment are correlated with the conditions in 1955. For example, the exclusion restriction may be violated if a district exhibits a specific ethnic composition or repression of communist groups during Suharto's regime that affect current economic conditions.

Regarding this issue, in 1955 Indonesia was undergoing a transition period. The country had just achieved its independence in 1945, and it faced several military attacks from the Netherlands and the British. The economy was relatively poorer during that period, and there were no significant differences (in terms of economic conditions) between the districts. Moreover, during this period, Indonesian politics were volatile. President Sukarno was overthrown by the military and Suharto subsequently implemented an authoritarian and very centralised form of government.

District governments in 1955 did not have the power to implement policies, because everything was decided by the central government. Moreover, since there was a fundamental change to district structures after the decentralisation era, political competition in the 1955 elections better reflects political sympathies that were less affected by the current socio-economic conditions. Moreover, as a result of the proliferation of districts and provinces, several may not have existed in 1955.

Similar to the strategy used for neighbouring political competition, parent district fixed effects interacted with the time trend were used in the robustness checks in the appendix to mitigate the potential problems outlined above. The historical competition

¹⁵Sørensen (2014) uses the same strategy for Norwegian local governments.

mean value is 0.65 and the standard deviation is 0.10. Figure 10 reveals to positive correlation between political competition and historical competition.

6 Results

In this section, I discuss the OLS and 2SLS estimations from equation (3), which analyse the effects of political competition on the dependent variables.

6.1 OLS Results

The first outcome variable in this study is log real RGDP per capita. Table 3 illustrates the estimation results for this dependent variable. All specifications include district and year fixed effects. All standard errors in the regressions are clustered according to district. In column 1, regressing log real RGDP per capita on political competition without adding any covariates yields a positive and insignificant association. However, once I include the covariates, the results in columns (2) - (4) suggest that political competition is positively associated with log real RGDP per capita and it is statistically significant at 5%. If interpreted as causal, the estimation suggests that an increase in political competition by one standard deviation would increase log real RGDP per capita by 1.2% or around 1.88% of one standard deviation. The results suggest that, after the reformation era, increased political competition increased the level of real RGDP per capita in Indonesia. Besley et al. (2010) and Padovano and Ricciuti (2009) have also determined the same pattern in the US and Italy, where higher political competition increases income levels.

[Insert Table 3 here]

[Insert Table 4 here]

The second outcome variable is real RGDP per capita growth. Table 4 illustrates the results for this variable. For this estimation, lagged personal income is included in columns (2) - (4). The results demonstrate that real RGDP per capita growth is also positively correlated with political competition in columns (2) - (4). The negative sign

associated with lag personal income suggests an income convergence. With regard to the magnitude itself, a one standard deviation increase in political competition increases economic growth by 0.4% or around 6.05% of one standard deviation. The results are consistent with [Besley et al. \(2010\)](#), in which increased political competition ultimately increases economic growth.

[Insert Table 5 here]

The results for this log own source revenue are presented in Table 5. The association is expected to be negative because higher political competition usually increases the government's incentive to reduce tax revenues. Therefore, it could reduce the amount of revenue generated for district own source revenues. In column 1, the relationship between political competition and log own source revenue (without adding control variables) was estimated to be negative and significant at 1%. In columns (2) - (4), after including the covariates into the OLS specifications, the results remain negative and statistically significant at 1%. We can also see that the R-square becomes higher after including several covariates. In terms of magnitude, a one standard deviation increase in political competition is associated with a 6.48% decrease in log own source revenues per capita. This is also consistent with the previous results in [Besley et al. \(2010\)](#), which found that stiffer political competition reduces tax revenue relative to total revenue in the US.

Because the total revenue generated locally by district governments has a negative result, it is interesting to determine the impacts on government expenditures. I use, total expenditure per capita and total government expenditures per capita by sectors as additional dependent variables. Table 6 illustrates the results for total expenditure per capita. The results indicate that the association between political competition and total government expenditure per capita is zero. Therefore, we cannot reject the null hypothesis.

[Insert Table 6 here]

Moreover, although the results for total government expenditure are zero, it is interesting to determine whether political competition affects government expenditure

based on sector (e.g infrastructure, education and health). Table 7 provides the estimation results for log total infrastructure expenditure per capita. The association between political competition and the dependent variable is positive and statistically significant at 10%. A one standard deviation increase in political competition leads to an increase in infrastructure expenditure by 17% or 11.47%, relative to the standard deviation.

[Insert Table 7 here]

The estimation results for log total education expenditure per capita are presented in Table 8. The evidence suggests that political competition does not affect government expenditure in education. Even though there is a positive correlation between political competition and the dependent variable, the null hypothesis cannot be rejected.

[Insert Table 8 here]

The last dependent variable is log health expenditure per capita. Table 9 depicts the results for this dependent variable, which suggest that political competition results in an increase in health expenditure per capita, which is statistically significant at 10% after several covariates were included into the regression specifications. If I interpret the magnitude of the association between these two variables, then a one standard deviation increase in political competition leads to an increase in government expenditure in health by 5.95% or around 5.44%, relative to the standard deviation. Results from Table 7 and 9 are consistent with previous studies (Arvate, 2013; Besley et al., 2010; Nye and Vasilyeva, 2015) in which stiffer political competition corresponds to higher public spending. However, it is still unclear whether higher spending is associated with more productive spending. Therefore, in the robustness check, I also extended the analysis by including several other dependent variables to determine whether spending was allocated to sectors that could increase people's welfares.

[Insert Table 9 here]

Overall, the estimation results indicate that political competition has a statistically significant correlation with several of the dependent variables. Nonetheless, the results

do not fully establish a causal relationship. Indeed, the endogeneity problem with political competition might bias the results and thus reduce the credibility of the OLS estimation. Therefore, I introduced instrumental variables to deal with this problem.

6.2 IV Results

The results presented thus far establish a robust statistical relationship between political competition and some of the dependent variables, after being controlled for with a substantial battery of covariates. However, there is still an issue with the endogeneity concern discussed in subsection 5.4. In an attempt to identify the causal relationship between political competition and outcomes, this section depicts the results for the two-stage least square (2SLS) estimations by using the lag of neighbouring political competition and political competition from the 1955 general election interacted with the time trend.

[Insert Table 10 here]

Table 10 illustrates the 2SLS estimation results for log real RGDP per capita (columns (1) - (2)) and log real RGDP per capita growth (columns (3) - (5)). Columns (1) and (3) are estimated without including any covariates. Column (2) and (4) are estimated by including the covariates used in the OLS estimation strategy. In column (5), I use the Arellano-Bond first difference estimator, as recommended by Caselli et al. (1996) and Besley et al. (2010). In this specification, I use one additional lag of log RGDP per capita growth as the instrument for lag dependent variable. All estimations include district and year fixed effects.

The results from the first stage between the instruments and political competition are positive and statistically significant. The F statistics are around 100-111, much higher than what is expected for weak instrumental variables. The Hansen's J statistic for the over-identification tests are not rejected, which supports the assumption of instrument exogeneity and the associated exclusion restrictions. In column 1, the results are statistically insignificant when the log RGDP per capita is regressed on political competition without adding any covariates. Nonetheless, by adding control variables in column (2), the association between political competition and RGDP per capita is

positive and statistically significant at 10%. This finding means that the exclusion of the control variables might bias the coefficient to zero. The coefficient from the 2SLS is higher than for the OLS in Table 3, which suggests that the OLS regression has a downward bias; This is in accordance with the results of Besley et al. (2010). In terms of the magnitude, under the conditions of instrument validity, the estimated quantitative effect is quite substantial: a one standard deviation increase in political competition is estimated to cause an increase of RGDP per capita by 1.9%.

The 2SLS estimation results in columns (3) and (4) for log RGDP per capita growth suggest that political competition increases the outcome variable and is statistically significant at 5%. A one standard deviation increase in political competition is associated with an increase in RGDP per capita growth by 0.81% or 13.5% relative to the standard deviation. In column (5), the Arrelano Bond estimation method was employed as suggested by Caselli et al. (1996) and Besley et al. (2010). The estimation results suggest a positive and statistically significant relationship between political competition and RGDP per capita growth. The results indicate that, in different estimation methods, the association between political competition and growth is robust and exhibits similar magnitudes. This finding is consistent with previous studies by Besley et al. (2010) and Padovano and Ricciuti (2009). Both studies find that stiffer political competition is beneficial for income growth. The results of the IV estimations for growth are similar to that of the OLS.

Table 11 presents the 2SLS estimation results for log own source revenue per capita (columns 1 - 2) and log total government expenditure per capita (columns 3 - 4). The first stage results for the instruments suggest that both lag neighbour political competition and historical political competition have a positive and statistically significant relationship with the political competition variable. Moreover, the F statistics range from 97 to 110. I cannot reject the null hypothesis for the over-identification test, as the p -values for the Hansen's J statistics range between 0.3549 and 0.8681.

[Insert Table 11 here]

The estimated coefficients for log own source revenue per capita are -1.126 in column 1 and -1.121 in column 2; Both are statistically significant at 1%. The results

are still robust after including covariates in column 2. The point estimates from the 2SLS estimations are larger than the results obtained from the OLS regressions. The results obtained from the instrumental variables regression suggest that a one standard deviation increase in political competition leads to a decrease of own source revenue per capita by 10.1% or 9.44%, relative to the standard deviation, which is substantial. The results for log total expenditure per capita in columns 3 and 4 also support the OLS estimates, where political competition does not affect total government expenditure per capita.

[Insert Table 12 here]

Table 12 provides the results for total government expenditures based on sector. Columns 1 and 2 contain the results for log infrastructure expenditure per capita. Columns 3 and 4 depict the results for log education expenditure per capita, and columns 5 and 6 provide the results for log health expenditure per capita. The first stage results in all columns suggest that lag neighbour political competition and political competition from the 1955 general election could be the source of exogenous variation for the instrumental variables strategy. The association between these two instruments and political competition is positive and statistically significant. The F statistics pass the robustness checks for weak instruments. The over-identification test results also permit me to use both variables as instruments, since the p -values for the Hansen's J statistics indicate that the null hypothesis cannot be rejected.

Importantly, political competition is still found to be positive and statistically significant for the infrastructure expenditure per capita. The estimated coefficients increase in relation to the OLS estimates, and range from 3.42 (column 1) to 3.92 (column 2). The results for log education expenditure per capita in columns 3 and 4 also support the results from the OLS regression: there is no statistically significant evidence that political competition affects total government expenditure on education. These results are in accordance with the study conducted by Skoufias et al. (2014), which found no association between directly elected mayors and education funding. Finally, the 2SLS estimation results for health expenditure per capita suggest that the null hypothesis cannot be rejected, since the coefficient for political competition is not

zero. This contradicts the results from the OLS regression, which suggests a statistically significant, positive relationship at 10%. This implies that the association between political competition and health expenditure observed in this study might be just a correlation, rather than a causal correspondence.

6.3 Extensions

Lagged Dependent Variables To capture the dynamic effects for the dependent variables, I augmented the analysis by including the lagged dependent variables in the estimation. One reason for using lagged dependent variables is that the current level of dependent variables is probably determined by past levels. Therefore, including these variables could minimise the potential of omitted variable bias in this estimation. Table A3 depicts the results for this estimation. The association between political competition and the dependent variables for both OLS and 2SLS specifications are similar to the estimation results from the baseline specification. Indeed, past levels of the dependent variable effects their current values. Nevertheless, the inclusion of the lagged dependent variables does not change the association between political competition and the variables of interest.

Lagged Political Competition An alternative specification uses lagged political competition. The previous value of political competition might affect policy makers' performance. Indeed, if politics had previously been more competitive, they would expect it to be so again, and the parliament and voters would urge policy makers to perform well and produce better policies. Table A4 illustrates that the lag of political competition affects current policies. Lagged political competition is associated with lower log own source revenues per capita for OLS and 2SLS estimation. It also determines the total infrastructure expenditure per capita.

Regarding the outcome variables, both real RGDP per capita and RGDP growth positively correlate to lagged political competition. The lag value of political competition increases the incentives for policy makers to implement policies that increase RGDP per capita and RGDP growth. These findings confirm that previous political

competition is a key determinant for policy makers to produce certain policies.

Old Districts District proliferation might affect how political competition affects the outcome of an election. As mentioned in section 3.1, 174 new districts have been created since the decentralisation era. Most of them are located outside the Java Islands, such as Sumatra, Kalimantan, Sulawesi, Nusa Tenggara, and Maluku. According to this analysis, districts that were established before the decentralisation might have better institutions than newly established districts. Keefer and Vlaicu (2008) has found that younger democracies tend to be more unproductive and have low quality bureaucracy. In this study, I find that heterogeneous effects exist between political competition and outcomes, if the sample is split into districts that were established before the decentralisation era in 2001 and districts that were established after 2001. We can see from Table A5 that, in old districts, political competition affects RGDP per capita growth, own source revenue and infrastructure expenditures. Moreover, for newly formed districts, although political competition does affect RGDP per capita, the effect on other variables is not significant.

Puskemas and Primary School District governments are responsible for health and education provisions. Therefore, I also investigated whether political competition influences districts to increase the number of community health centres (*Puskemas*) and primary schools. Table A6 suggests that political competition is associated with improved *puskemas* primary school provisions. Columns (1) - (4) are the estimation results for *puskemas*. For columns (1) - (2), I used the OLS estimation method and for columns (3) - (4) I used the 2SLS method with the over-identified model. The same procedures were adopted for primary school (Columns (5) - (8)). The results for *puskemas* are positive; However, once I included a control variable, the coefficient is zero. If I interpret the results without including the covariates, a one standard deviation increase in political competition leads to an increase in the number of *puskemas* by roughly 3 units. The results for primary schools are positive and statistically significant. In column (4), the 2SLS results suggest that a one standard deviation increase

in political competitiveness is associated with an increase in the number of primary schools by 8 units. However, the *p-values* for the Hansen's J statistic suggests that we need to be careful when interpreting the results from the 2SLS estimation, since the null hypothesis is not rejected.

Non Agricultural RGDP relative to Total RGDP In theory, increased political competition leads the government to allocate policy-promoting resources to modern sectors or non-agricultural sectors (Besley et al., 2010). Therefore, I used the share of non-agricultural RGDP relative to total RGDP as the dependent variable. Table A7 reveals that political competition has a robust and positive association with larger, non-traditional sectors. For example, in column (2), it can be seen that the association between political competition and the modern sectors is significant at 1%. A one standard deviation increase in political competition increases the share of non-agricultural sectors by roughly 0.7%.

6.4 Robustness Checks

To check that these findings are robust, I performed further robustness checks by introducing additional control variables related to several political aspects. The first aspect is the timing of local mayoral elections, which is a binary variable for years during which districts held a mayor election. This variable captures the possibility that government policies differ during the election period. Another additional control variable is a dummy that indicates whether the mayor comes from the majority party in the parliament. If the mayor has political support from the parliament, this might affect government policies by minimising the likelihood that the parliaments would reject the policy.

Table A8 contains the estimation results for the four main dependent variables. Previous control variables are included in these regressions as well as district and year fixed effects. We can see that, even including the additional political covariates, the association between political competition and the dependent variables remains unaltered and statistically significant.

Another robustness check includes further explanatory variables: in particular, the vote margin between the first winning party and the second winning party. This new explanatory variable reflects the strength of the winning party relative to their competition and the closeness of district-level general elections. Similar to the political competition variable, vote margin would be the fractionalisation; Therefore, a higher vote margin represents higher political competition. This variable replaces previous political competition measures (Herfindahl-Hirschman Index) in the new estimation strategy.

The results for this robustness check are presented in Table A9. The evidence indicates that real RGDP per capita, economic growth and total infrastructure expenditure are positively related to the vote margin. Moreover, own source revenues per capita decreases in accordance with the vote margin. The estimation results are robust and statistically significant.

These findings reveal that, when other factors and alternative measure of political competition are considered, there is consistent evidence that political competition has a positive impact on government performance and voters' economic welfare. These results support the previous literature, which has found that higher political competition improves pro-growth policies (Besley et al., 2010; Padovano and Ricciuti, 2009), increases supply of public goods (Svaleryd and Vlachos, 2009; Solé-Ollé and Viladecans-Marsal, 2012; Fiva and Natvik, 2013; Arvate, 2013) and improves government efficiency (Ashworth et al., 2014).

7 Conclusions

This paper investigates whether political competition improves policies in Indonesia. Since 1999, the number of political parties able to compete in the national and local elections has increased. Before 1999, only three parties could compete in elections, while in the latest election in 2014, 10 parties participated in the election. Beginning in January 2001, local governments became largely responsible for providing basic services in Indonesia. A higher degree of political competition could encourage the government to reduce opportunistic behaviour and more efficiently allocate resources

(Wittman, 1989).

I use district-level data from 2000 to 2013 in Indonesia to examine the role of political competition on local government performance. Political competition is measured using the Herfindahl-Hirschman political concentration index (HHI). However, as has been elaborated in many previous studies, political competition is also an endogenous variable (Besley et al., 2010; Padovano and Ricciuti, 2009; Svaleryd and Vlachos, 2009; Fiva and Natvik, 2013; Solé-Ollé and Viladecans-Marsal, 2012; Ashworth et al., 2014; Sørensen, 2014). To resolve this issue, political competition is instrumented using lagged political competition in neighbouring districts within the same province and the interaction between political competition in 1955 and a time trend.

This study confirms that political competition increases the incentive for policy makers to produce policies that increase RGDP per capita and improve RGDP per capita growth. I further find that stiffer political competition reduces own sources revenue per capita. Moreover, higher political competition is associated with increased spending on infrastructure and health, even though the results for the latter do not hold in the IV estimations. By extending the analysis to only include districts that had been established long before the decentralisation era, the findings again indicate that political competition matters. Moreover, stiffer political competition increases the number of community health centres and primary schools, and increases the share of non-agricultural income relative to total income. The results are robust after conducting several robustness checks. Therefore, the association between political competition and policy choices in this study is statistically significant and economically important.

These findings could be useful for an Indonesian political context, and may be a starting point to enhance the degree of political competition and reform the current political system. One limitation of this study is that I do not consider the political alignment between higher-level governments (e.g. central and province governments) and district governments. Extending the data into the mayoral election results could also improve the analysis. Future studies should also expand the analysis by differentiating between Islamic and secular parties in the parliament, because both ideologies have different objectives. Finally, extending the presence of media (e.g. television,

newspaper and mobile phone) could also be an interesting topic for future work.

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Figures and Tables

Figure 1: District Boundaries in Indonesia

Notes: This is Indonesia's district boundaries based on Home Office, 2014.

Table 1: Number of Districts in Indonesia

Year	Number of Districts	Number of District Excluding Districts in DKI Jakarta	Number of Regencies	Number of Cities
1999	340	335	268	72
2000	340	335	268	72
2001	353	347	269	84
2002	390	384	302	88
2003	439	433	349	90
2004	439	433	349	90
2005	439	433	349	90
2006	439	433	349	90
2007	464	458	370	94
2008	494	488	397	97
2009	496	490	399	97
2010	496	490	399	97
2011	497	491	399	98
2012	501	495	403	98
2013	511	505	413	98
2014	514	508	416	98

* Source: Own Calculation based on Home Office, 2014

Table 2: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Political Competition	5458	0.81	0.09	0.24	0.94
RGPD per Capita (in Rupiah)	5458	6,311,955	6,603,461	247,913.2	98,584,192
Log RGDP per capita Growth	5458	0.06	0.06	-0.78	1.99
Own Source Revenues per Capita (in Rupiah)	5042	120,202.9	214,067.3	1,726.51	5,211,151
Log Total Expenditure per Capita	5037	13.97	0.96	3.03	19.13
Log Total Infrastructure Expenditure per Capita	5031	11.88	1.50	-4.49	22.99
Log Total Education Expenditure per Capita	5031	12.78	0.91	4.92	17.69
Log Total Health Expenditure per Capita	5031	11.43	1.10	1.70	19.82
Lag Neighbour HHI	5031	0.87	0.10	0.31	0.99
Historical HHI	5458	0.65	0.10	0.15	0.82
Log Total Population	5458	5.84	0.96	2.28	8.56
Urban Rate (%)	5458	66.80	28.02	0.52	100
Population Density (thousand people per km ²)	5458	1.06	2.23	0.00	32.64
Literacy Rate (% of total Population)	5458	92.02	6.81	50.08	99.94
Log Central Government Transfer	5458	26.38	1.44	7.29	29.95
Resource Rich	5458	0.97	0.18	0	1
PDI-P Share	5458	17.50	13.28	0	86.92
PPP Share	5458	6.96	5.59	0	44.02
Number of Primary School	1825	406.85	352.96	2	2818
Number of Clinic	1419	78.96	46.23	5	292
Non Agricultural Share	5001	0.67	0.19	0.21	0.99

Figure 2: Trend of Log RGDP per Capita by Islands from 2000-2013

Figure 3: Trend of RGDP Growth by Islands from 2000-2013

Figure 4: Average Log RGDP per Capita by Districts from 2000-2013

Figure 5: Average Log RGDP per Capita Growth by Districts from 2000-2013

Figure 6: Political Competition by Districts in 1999

Figure 7: Political Competition by Districts in 2004

Figure 8: Political Competition by Districts in 2009

Figure 9: Political Competition vs Lag Neighbour Competition

Figure 10: Political Competition vs Historical Competition

Table 3: Log Real RGDP per Capita and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political competition	0.0893 (0.0777)	0.128** (0.0552)	0.128** (0.0551)	0.134** (0.0527)
Log total population		-0.737*** (0.0561)	-0.738*** (0.0562)	-0.738*** (0.0560)
Urban rate		0.000850 (0.00104)	0.000848 (0.00104)	0.000938 (0.00104)
Population density		-0.000267 (0.00225)	-0.000237 (0.00228)	0.000111 (0.00231)
Literacy rate		-0.000423 (0.00165)	-0.000426 (0.00165)	-0.000481 (0.00169)
Central government transfer			0.00103 (0.00128)	0.000571 (0.00127)
Resource rich			0.0000394 (0.00723)	0.000344 (0.00719)
PDI-P share				0.000885 (0.000577)
PPP share				-0.0000299 (0.00114)
N	5458	5458	5458	5458
R^2	0.608	0.832	0.832	0.832
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log real RGDP per capita. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Real RGDP Growth and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political competition	0.0209 (0.0152)	0.0443** (0.0181)	0.0447** (0.0181)	0.0428** (0.0182)
Lagged RGDP per capita		-0.0752*** (0.0204)	-0.0753*** (0.0204)	-0.0758*** (0.0205)
Log total population		-0.0309*** (0.0115)	-0.0308*** (0.0115)	-0.0310*** (0.0115)
Urban rate		-0.0000650 (0.000183)	-0.0000611 (0.000183)	-0.0000499 (0.000183)
Population density		-0.000546 (0.00102)	-0.000540 (0.00103)	-0.000308 (0.00100)
Literacy rate		-0.000497 (0.000387)	-0.000504 (0.000388)	-0.000551 (0.000391)
Central government transfer			0.00000482 (0.000680)	-0.0000483 (0.000672)
Resource rich indicator			-0.00523 (0.00497)	-0.00510 (0.00495)
PDI-P share				0.000276 (0.000177)
PPP share				0.000269 (0.000272)
N	5458	5031	5031	5031
R^2	0.035	0.063	0.063	0.063
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is real RGDP per capita growth. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Own Source Revenue per Capita and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political Competition	-0.68*** (0.15)	-0.67*** (0.14)	-0.68*** (0.14)	-0.72*** (0.14)
Log total population		-0.57*** (0.070)	-0.66*** (0.071)	-0.67*** (0.069)
Urban rate		-0.0011 (0.0019)	-0.0013 (0.0019)	-0.0016 (0.0020)
Population density		0.0042 (0.0066)	0.0043 (0.0067)	0.0033 (0.0069)
Literacy rate		0.0020 (0.0036)	0.0022 (0.0036)	0.0022 (0.0036)
Central government transfer			0.25*** (0.057)	0.25*** (0.057)
Resource rich			-0.022 (0.036)	-0.023 (0.036)
PDI-P share				-0.0026* (0.0015)
PPP share				0.0014 (0.0032)
<i>N</i>	5042	5042	5042	5042
<i>R</i> ²	0.808	0.819	0.825	0.825
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log own source revenue per capita. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Total Expenditure and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political Competition	0.45 (0.41)	0.57 (0.40)	0.56 (0.40)	0.62 (0.41)
Log total population		-0.016 (0.12)	-0.025 (0.12)	-0.028 (0.12)
Urban rate		0.013 (0.013)	0.013 (0.013)	0.013 (0.013)
Population density		0.014 (0.022)	0.014 (0.022)	0.015 (0.022)
Literacy rate		-0.012 (0.0086)	-0.012 (0.0086)	-0.012 (0.0086)
Central government transfer			0.017 (0.024)	0.017 (0.023)
Resource rich			-0.0096 (0.060)	-0.0087 (0.060)
PDI-P share				0.0010 (0.0034)
PPP share				-0.0033 (0.0065)
<i>N</i>	5037	5037	5037	5037
<i>R</i> ²	0.003	0.008	0.009	0.009
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log total expenditure per capita. * $p < 0.10$,

** $p < 0.05$, *** $p < 0.01$

Table 7: Infrastructure Expenditure and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political Competition	1.66* (0.85)	1.77** (0.82)	1.75** (0.82)	1.90** (0.86)
Log total population		0.077 (0.17)	0.057 (0.17)	0.051 (0.17)
Urban rate		0.011 (0.021)	0.012 (0.021)	0.012 (0.020)
Population density		-0.024 (0.075)	-0.022 (0.073)	-0.020 (0.073)
Literacy rate		-0.0093 (0.013)	-0.0096 (0.013)	-0.0084 (0.013)
Central government transfer			0.034 (0.035)	0.034 (0.035)
Resource rich			0.053 (0.096)	0.055 (0.096)
PDI-P share				0.0016 (0.0062)
PPP share				-0.010 (0.012)
<i>N</i>	5031	5031	5031	5031
<i>R</i> ²	0.007	0.008	0.009	0.010
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log total infrastructure expenditure per capita. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Education Expenditure and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political Competition	0.29 (0.38)	0.37 (0.36)	0.36 (0.36)	0.38 (0.38)
Log total population		0.0011 (0.094)	-0.0037 (0.094)	-0.0044 (0.094)
Urban rate		0.0080 (0.0094)	0.0080 (0.0094)	0.0081 (0.0093)
Population density		0.024 (0.017)	0.023 (0.017)	0.023 (0.017)
Literacy rate		-0.0097 (0.0065)	-0.0098 (0.0065)	-0.0097 (0.0065)
Central government transfer			0.010 (0.015)	0.010 (0.015)
Resource rich			-0.025 (0.046)	-0.025 (0.046)
PDI-P share				0.00024 (0.0031)
PPP share				-0.0011 (0.0052)
<i>N</i>	5031	5031	5031	5031
<i>R</i> ²	0.003	0.006	0.007	0.007
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log total education expenditure per capita. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Health Expenditure and Political Competition: OLS Estimation

	(1)	(2)	(3)	(4)
Political Competition	0.63 (0.41)	0.74* (0.39)	0.72* (0.39)	0.66* (0.39)
Log total population		0.12 (0.13)	0.096 (0.13)	0.095 (0.13)
Urban rate		0.012 (0.012)	0.012 (0.012)	0.012 (0.012)
Population density		-0.010 (0.042)	-0.0090 (0.041)	-0.0084 (0.041)
Literacy rate		-0.012 (0.010)	-0.013 (0.010)	-0.013 (0.010)
Central government transfer			0.045 (0.040)	0.043 (0.039)
Resource rich			0.0057 (0.071)	0.0059 (0.071)
PDI-P share				0.0026 (0.0033)
PPP share				0.0049 (0.0077)
N	5031	5031	5031	5031
R^2	0.004	0.009	0.012	0.013
Estimation Method	OLS	OLS	OLS	OLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level.
The dependent variable in this estimation is log total health expenditure per capita.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Economic Outcomes and Political Competition: 2SLS Estimation

	(1)	(2)	(3)	(4)	(5)
	RGDP pc.	RGDP pc.	RGDP growth	RGDP growth	RGDP growth
Political competition	0.121 (0.150)	0.211* (0.125)	0.0846** (0.0342)	0.0915** (0.0382)	0.0540** (0.0227)
Log total population		-0.698*** (0.0614)		-0.0314*** (0.0114)	0.0253 (0.0330)
Urban rate		0.000933 (0.00106)		0.00000191 (0.000187)	0.000387 (0.000293)
Population density		-0.00248 (0.00500)		-0.000197 (0.000992)	-0.0113 (0.00757)
Literacy rate		-0.000917 (0.00189)		-0.000649 (0.000404)	-0.00105* (0.000605)
Central government transfer		-0.000994 (0.00200)		-0.0000815 (0.000668)	-0.000494 (0.000692)
Resource rich		-0.00250 (0.00745)		-0.00533 (0.00495)	-0.00501 (0.00561)
PDI-P share		0.00106* (0.000627)		0.000284 (0.000183)	0.0000633 (0.000181)
PPP share		0.000166 (0.00124)		0.0000606 (0.000323)	0.000209 (0.000440)
L.Log RGDP pc				-0.0763*** (0.0204)	-0.0289* (0.0162)
<i>N</i>	5031	5031	5031	5031	4604
Estimation Method	2SLS	2SLS	2SLS	2SLS	Arrelano Bond
District FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
First stage					
Lag Neighbour Comp	0.382*** (0.032)	0.374*** (0.031)	0.382*** (0.032)	0.373*** (0.031)	
Comp 1955 X Time Trend	0.021*** (0.007)	0.014* (0.007)	0.021*** (0.007)	0.014* (0.007)	
<i>F</i>	111	100	111	100	
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.4016	0.7348	0.3329	0.4187	

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is log real RGDP per capita for columns (1) - (2) and log real RGDP per capita growth in columns (3) - (5). Political competition is instrumented by lag of neighbour political competition and by political competition in 1955 general election interact with time trend. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Local State Capacity and Political Competition: 2SLS Estimation

	(1)	(2)	(3)	(4)
	Log Own Source Rev. pc	Log Own Source Rev. pc	Log Total Expenditure pc	Log Total Expenditure pc
Political competition	-1.126*** (0.311)	-1.121*** (0.328)	0.723 (0.853)	0.973 (0.918)
Log total population		-0.622*** (0.0689)		-0.0898 (0.107)
Urban rate		-0.00276 (0.00212)		0.0128 (0.0121)
Population density		-0.000648 (0.0130)		0.0414 (0.0329)
Literacy rate		0.00157 (0.00387)		-0.00642 (0.00926)
Central government transfer		0.279*** (0.0500)		0.0196 (0.0245)
Resource rich		-0.0251 (0.0416)		0.0318 (0.0569)
PDI-P share		-0.00332** (0.00148)		0.000354 (0.00357)
PPP share		0.00408 (0.00325)		-0.00744 (0.00686)
<i>N</i>	4779	4779	4641	4641
Estimation Method	2SLS	2SLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
First stage				
Lag Neighbour Comp	0.396*** (0.034)	0.389*** (0.033)	0.392*** (0.033)	0.377*** (0.032)
Comp 1955 X Time Trend	0.020*** (0.007)	0.012* (0.007)	0.020** (0.008)	0.015** (0.007)
<i>F</i>	110	97	109	98
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.3549	0.8681	0.7575	0.7524

* Notes: Robust standard errors in parentheses and clustered at the district level. Political competition is instrumented by lag of neighbour political competition and by political competition in 1955 general election interact with time trend. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 12: Government Expenditure and Political Competition: 2SLS Estimation

	(1) Log Infra. Expenditure pc.	(2) Log Infra. Expenditure pc.	(3) Log Education Expenditure pc.	(4) Log Education Expenditure pc.	(5) Log Health Expenditure pc.	(6) Log Health Expenditure pc.
Political competition	3.42** (1.66)	3.92** (1.79)	-0.10 (0.74)	-0.034 (0.80)	0.13 (1.09)	0.18 (1.16)
Log total population		-0.14 (0.15)		-0.010 (0.13)		0.040 (0.12)
Urban rate		0.011 (0.019)		0.0062 (0.0087)		0.0099 (0.011)
Population density		0.10* (0.053)		0.032 (0.023)		0.028 (0.031)
Literacy rate		-0.0072 (0.014)		-0.0060 (0.0072)		-0.011 (0.010)
Central government transfer		0.022 (0.037)		-0.000026 (0.017)		0.032 (0.041)
Resource rich		-0.024 (0.088)		-0.0042 (0.050)		-0.0092 (0.073)
PDI-P share		0.0023 (0.0064)		0.00079 (0.0033)		0.0018 (0.0035)
PPP share		-0.020 (0.013)		0.00032 (0.0057)		0.0035 (0.0079)
<i>N</i>	4636	4636	4636	4636	4636	4636
Estimation Method	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
First stage						
Lag Neighbour Comp	0.392*** (0.033)	0.377*** (0.032)	0.392*** (0.033)	0.376*** (0.032)	0.392*** (0.033)	0.377*** (0.032)
Comp 1955 X Time Trend	0.020** (0.008)	0.015** (0.007)	0.020** (0.008)	0.015** (0.008)	0.020** (0.008)	0.015*** (0.007)
<i>F</i>	109	98	109	97	109	98
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.7203	0.7081	0.6765	0.7173	0.5512	0.5373

* Notes: Robust standard errors in parentheses and clustered at the district level. Political competition is instrumented by lag of neighbour political competition and by political competition in 1955 general election interact with time trend. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix A Online Appendix

Table A1: District Proliferation, Political Competition and Outcomes: 2SLS Estimation

	(1) Log GDP pc	(2) Log GDP pc Growth	(3) Log Own Source Revenue pc	(4) Log Total Expenditure pc	(5) Log Total Inf. Expenditure pc	(6) Log Total Educ. Expenditure pc	(7) Log Total Health. Expenditure pc
Political competition	0.21* (0.13)	0.083** (0.039)	-1.12*** (0.33)	0.98 (0.92)	3.89** (1.79)	-0.039 (0.79)	0.16 (1.17)
Resource rich at neighbouring districts	0.019 (0.040)	0.035 (0.024)	-0.041 (0.11)	-0.12 (0.22)	0.12 (0.38)	0.071 (0.19)	0.18 (0.25)
Log total population	-0.70*** (0.061)	0.0085 (0.014)	-0.62*** (0.069)	-0.087 (0.11)	-0.14 (0.15)	-0.015 (0.088)	0.040 (0.12)
Urban rate	0.00093 (0.0011)	-0.000066 (0.00017)	-0.0027 (0.0021)	0.013 (0.012)	0.011 (0.019)	0.0062 (0.0087)	0.0098 (0.011)
Population density	-0.0025 (0.0050)	0.00018 (0.00098)	-0.00054 (0.013)	0.042 (0.033)	0.10* (0.054)	0.032 (0.023)	0.028 (0.031)
Literacy rate	-0.00092 (0.0019)	-0.00048 (0.00040)	0.0016 (0.0039)	-0.0068 (0.0093)	-0.0080 (0.014)	-0.0065 (0.0072)	-0.011 (0.011)
Central government transfer	-0.00096 (0.0020)	0.00034 (0.00070)	0.28*** (0.050)	0.020 (0.025)	0.022 (0.037)	0.00074 (0.017)	0.033 (0.041)
Resource rich	0.014 (0.039)	0.027 (0.022)	-0.062 (0.10)	-0.078 (0.22)	0.080 (0.36)	0.058 (0.18)	0.15 (0.25)
PDI-P share	0.0011* (0.00063)	0.00019 (0.00017)	-0.0033** (0.0015)	0.00019 (0.0036)	0.0020 (0.0064)	0.00074 (0.0033)	0.0019 (0.0035)
PPP share	0.00016 (0.0012)	0.000023 (0.00030)	0.0041 (0.0032)	-0.0073 (0.0068)	-0.020 (0.013)	0.00032 (0.0057)	0.0034 (0.0079)
N	5031	5031	4779	4641	4636	4636	4636
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parent District FE x time trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes
First stage							
F	100	100	97	97	97	97	97
Hansen's J Statistic (p-value)	0.7560	0.5185	0.8823	0.7497	0.7380	0.6703	0.4992

* Notes: Robust standard errors in parentheses and clustered at the district level. See Notes of Table 3 and Table 10 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A2: Excluding Java, Political Competition and Outcomes: 2SLS Estimation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Log GDP pc	Log GDP pc Growth	Log Own Source Revenue pc	Log Total Expenditure pc	Log Total Inf. Expenditure pc	Log Total Educ. Expenditure pc	Log Total Health. Expenditure pc
Political competition	0.22 (0.14)	0.10** (0.045)	-1.20*** (0.40)	1.26 (0.98)	4.52** (1.90)	0.26 (0.83)	0.26 (1.25)
Log total population	-0.69*** (0.063)	0.0072 (0.015)	-0.63*** (0.072)	-0.11 (0.11)	-0.19 (0.17)	-0.032 (0.092)	0.011 (0.13)
Urban rate	0.0014 (0.0015)	-0.00017 (0.00026)	-0.0048 (0.0031)	0.020 (0.020)	0.017 (0.032)	0.014 (0.014)	0.015 (0.018)
Population density	0.00090 (0.0048)	0.0012 (0.0013)	-0.012 (0.0095)	0.053 (0.044)	0.13* (0.077)	0.048* (0.028)	0.039 (0.036)
Literacy rate	-0.00064 (0.0027)	-0.0010* (0.00058)	0.0054 (0.0058)	-0.011 (0.011)	-0.017 (0.017)	-0.014 (0.0089)	-0.019 (0.014)
Central government transfer	0.000089 (0.0023)	0.00051 (0.00079)	0.28*** (0.056)	0.020 (0.028)	0.0098 (0.041)	0.0047 (0.019)	0.033 (0.046)
Resource rich	-0.0010 (0.0093)	-0.0063 (0.0065)	-0.0041 (0.052)	-0.0012 (0.065)	-0.11 (0.095)	-0.0074 (0.056)	-0.020 (0.086)
PDI-P share	0.0015** (0.00066)	0.00016 (0.00021)	-0.0031* (0.0017)	-0.00036 (0.0043)	0.0015 (0.0077)	0.0019 (0.0040)	0.0022 (0.0042)
PPP share	-0.0012 (0.0020)	-0.00048 (0.00055)	0.0079 (0.0054)	-0.014 (0.0092)	-0.034* (0.018)	-0.00065 (0.0077)	0.0027 (0.012)
<i>N</i>	3598	3598	3374	3208	3203	3203	3203
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parent District FE x time trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes
First stage							
<i>F</i>	99	99	98	96	96	96	96
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.9063	0.6147	0.7273	0.9567	0.3362	0.9477	0.6181

* Notes: Robust standard errors in parentheses and clustered at the district level. See Notes of Table 3 and Table 10 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Further Results: Adding Lagged Dependent Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Log GDP pc	Log GDP pc Growth	Log Own Source Revenue pc	Log Total Expenditure pc	Log Total Inf. Expenditure pc	Log Total Educ. Expenditure pc	Log Total Health. Expenditure pc	Log GDP pc	Log GDP pc Growth	Log Own Source Revenue pc	Log Total Expenditure pc	Log Total Inf. Expenditure pc	Log Total Educ. Expenditure pc	Log Total Health. Expenditure pc
Political competition	0.088** (0.035)	0.038** (0.018)	-0.27** (0.11)	0.27 (0.23)	0.70 (0.43)	0.28 (0.23)	0.24 (0.25)	0.19** (0.076)	0.097** (0.042)	-0.49* (0.25)	0.62 (0.49)	2.12** (0.93)	-0.012 (0.51)	0.054 (0.63)
L.Log RGDP pc	0.40*** (0.046)							0.40*** (0.046)						
L.Log RGDP pc growth		-0.14*** (0.044)							-0.14*** (0.044)					
L.Log own source revenue pc			0.25*** (0.023)							0.25*** (0.023)				
L.Log total expenditure pc				0.47*** (0.053)							0.47*** (0.053)			
L.Log total infrastructure exp. pc					0.47*** (0.051)							0.46*** (0.051)		
L.Log total education exp. pc						0.36*** (0.048)							0.36*** (0.048)	
L.Log total health exp. pc							0.46*** (0.046)							0.46*** (0.045)
<i>N</i>	5031	5031	4506	4641	4636	4636	4636	5031	5031	4504	4641	4636	4636	4636
<i>R</i> ²	0.873	0.058	0.818	0.242	0.233	0.138	0.219							
Estimation Method	OLS	OLS	OLS	OLS	OLS	OLS	OLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>F</i>								100	100	94	97	97	98	97
Hansen's <i>J</i> Statistic (<i>p</i> -value)								0.7835	0.3828	0.3353	0.8664	0.7885	0.8900	0.8372

* Notes: Robust standard errors in parentheses and clustered at the district level. Political competition is instrumented by lag of neighbour political competition and by political competition in 1955 general election interact with time trend.* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Further Results: Adding Lagged Political Competition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Log GDP pc	Log GDP pc Growth	Log Own Source Revenue pc	Log Total Expenditure pc	Log Total Inf. Expenditure pc	Log Total Educ. Expenditure pc	Log Total Health. Expenditure pc
Panel A	OLS Estimation Results						
L.political competition	0.14*** (0.050)	0.033** (0.013)	-0.47*** (0.14)	0.39 (0.39)	1.32* (0.76)	0.30 (0.34)	0.43 (0.38)
<i>N</i>	5031	5031	4779	4649	4644	4644	4644
<i>R</i> ²	0.815	0.038	0.779	0.008	0.007	0.005	0.009
Panel B	2SLS Estimation Results						
L.political competition	0.16* (0.095)	0.069** (0.029)	-0.87*** (0.24)	0.70 (0.70)	2.99** (1.35)	-0.051 (0.61)	0.068 (0.87)
<i>N</i>	5031	5031	4779	4641	4636	4636	4636
<i>F</i>	125	125	110	123	123	123	123
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.9897	0.7397	0.7350	0.5698	0.8267	0.7224	0.5320
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. See Notes of Table 3 and Table 10 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5: Old vs New Districts

	(1) Log GDP pc	(2) Log GDP pc Growth	(3) Log Own Source Revenue pc	(4) Log Total Expenditure pc	(5) Log Total Inf. Expenditure pc	(6) Log Total Educ. Expenditure pc	(7) Log Total Health. Expenditure pc
Panel A	Sample: Old Districts						
Political competition	0.14 (0.13)	0.097** (0.041)	-0.82*** (0.29)	0.72 (0.84)	3.41* (1.78)	-0.025 (0.78)	-0.31 (0.98)
<i>N</i>	4142	4142	4002	3921	3921	3921	3921
<i>F</i>	109	109	103	109	109	109	109
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.4560	0.6496	0.3017	0.5289	0.2441	0.7733	0.6410
Panel B	Sample: Newly Established Districts						
Political competition	1.43* (0.80)	-0.092 (0.17)	-1.64 (4.69)	9.51 (14.5)	23.5 (16.8)	-0.089 (8.09)	15.2 (23.1)
<i>N</i>	889	889	777	720	715	715	715
<i>F</i>	10	10	6	9	7	7	7
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.5760	0.4709	0.5897	0.1004	0.1478	0.1281	0.1230
Estimation Method	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. Political competition is instrumented by lag neighbour political competition and historical political competition. See Notes of Table 3 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A6: Additional Dependent Variable: Number of Community Health Centre and Primary School

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Puskesmas	Puskesmas	Puskesmas	Puskesmas	Primary School	Primary School	Primary School	Primary School
Political competition	19.3* (10.2)	12.2 (8.95)	35.4** (17.8)	22.2 (14.2)	124.8*** (41.6)	121.0*** (42.7)	145.6** (64.9)	92.2* (52.9)
<i>N</i>	1419	1419	1092	1092	1825	1825	1520	1520
<i>R</i> ²	0.086	0.395			0.327	0.458		
Estimation Method	OLS	OLS	2SLS	2SLS	OLS	OLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes
<i>F</i>			129	118			119	110
Hansen's <i>J</i> Statistic (<i>p</i> -value)			0.0012	0.0245			0.0003	0.0010

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is number of puskesmas or community health centre for column (1-4) and number of primary school for column (5-8). See Notes of Table 3 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7: Alternative Dependent Variable: Non Agricultural RGDP over total RGDP

	(1)	(2)	(3)	(4)
Political competition	0.074*** (0.018)	0.074*** (0.017)	0.14*** (0.036)	0.13*** (0.038)
<i>N</i>	5001	5001	4596	4596
<i>R</i> ²	0.324	0.360		
Estimation Method	OLS	OLS	2SLS	2SLS
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
<i>F</i>			110	99
Hansen's <i>J</i> Statistic (<i>p</i> -value)			0.0190	0.0037

* Notes: Robust standard errors in parentheses and clustered at the district level. The dependent variable in this estimation is the share of non agriculture RGDP over total RGDP. See Notes of Table 3 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A8: Robustness Check: Political Covariates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Log GDP pc	Log GDP pc Growth	Log Own Source Revenue pc	Log Total Expenditure pc	Log Total Inf. Expenditure pc	Log Total Educ. Expenditure pc	Log Total Health. Expenditure pc
Panel A	OLS Estimation Results						
Political competition	0.13** (0.053)	0.021 (0.016)	-0.72*** (0.14)	0.62 (0.41)	1.91** (0.86)	0.39 (0.38)	0.66* (0.39)
Local election	0.00036 (0.0034)	0.0000052 (0.0047)	-0.065*** (0.016)	0.0031 (0.030)	0.061 (0.049)	0.0053 (0.030)	-0.042 (0.035)
Mayor majority	0.44*** (0.020)	0.0034 (0.0070)	1.66*** (0.13)	-0.034 (0.13)	-0.31 (0.23)	-0.045 (0.11)	-0.11 (0.14)
Secular party majority	-0.0052 (0.015)	0.00025 (0.0036)	-0.017 (0.041)	0.12 (0.075)	0.11 (0.13)	0.13* (0.069)	0.12 (0.081)
<i>N</i>	5458	5458	5042	5037	5031	5031	5031
<i>R</i> ²	0.832	0.036	0.826	0.010	0.010	0.008	0.014
Panel B	2SLS Estimation Results						
Political competition	0.21* (0.13)	0.087** (0.039)	-1.12*** (0.33)	1.02 (0.91)	3.94** (1.78)	0.016 (0.79)	0.24 (1.16)
Local election	-0.00018 (0.0034)	-0.00045 (0.0048)	-0.066*** (0.016)	0.0035 (0.030)	0.064 (0.049)	-0.0073 (0.029)	-0.047 (0.036)
Mayor majority	-0.22*** (0.0069)	-0.022*** (0.0042)	-0.73*** (0.029)	-0.080 (0.055)	-0.21** (0.10)	-0.084 (0.053)	-0.095 (0.068)
Secular majority	-0.0043 (0.013)	0.00097 (0.0034)	-0.023 (0.042)	0.11 (0.077)	0.092 (0.13)	0.11* (0.067)	0.13 (0.081)
<i>N</i>	5031	5031	4779	4641	4636	4636	4636
<i>F</i>	101	101	98	98	98	98	98
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.7223	0.4417	0.8781	0.6844	0.7317	0.6324	0.4693
<i>N</i>	5031	5031	4779	4649	4644	4644	4644
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. Local direct election is dummy variable for mayor election. Election is dummy variable for general election year. Mayor majority is dummy variable for which the mayor who are in power come from the majority party in the parliament. See Notes of Table 3 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A9: Robustness Check: Using Vote Margin

	(1) Log GDP pc	(2) Log GDP pc Growth	(3) Log Own Source Revenue pc	(4) Log Total Expenditure pc	(5) Log Total Inf. Expenditure pc	(6) Log Total Educ. Expenditure pc	(7) Log Total Health. Expenditure pc
Panel A	OLS Estimation Results						
Vote margin fractionalisation	0.065** (0.032)	0.020** (0.0092)	-0.33*** (0.090)	0.21 (0.24)	0.70 (0.48)	0.11 (0.22)	0.25 (0.25)
<i>N</i>	5458	5458	5042	5037	5031	5031	5031
<i>R</i> ²	0.832	0.036	0.825	0.008	0.007	0.006	0.012
Panel B	2SLS Estimation Results						
Vote margin fractionalisation	0.12* (0.072)	0.050** (0.023)	-0.66*** (0.20)	0.58 (0.55)	2.32** (1.06)	-0.015 (0.47)	0.12 (0.69)
<i>N</i>	5031	5031	4779	4641	4636	4636	4636
<i>F</i>	129	129	127	126	126	126	126
Hansen's <i>J</i> Statistic (<i>p</i> -value)	0.6579	0.3616	0.7465	0.7950	0.6201	0.7186	0.5421
<i>N</i>	5031	5031	4779	4649	4644	4644	4644
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Notes: Robust standard errors in parentheses and clustered at the district level. Vote margin fractionalisation is 1 minus the margin between the winning party with the second winning party in the district elections. See Notes of Table 3 for additional information. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$