

The Politics of District Budget Formulation in Multi-Party Indonesia

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Abstract: *State budget formulation is supposed to reflect the needs of the people. However, political influences are often seen in the formulation. Politicians are interested in serving their constituents and win an election, especially when one of the competitors is an incumbent, resulting in the so-called political business cycle. This paper examines the influence of politics on budget formulation at the districts in Indonesia. It contributes to the literature in politics of state budgeting focusing on Indonesia, a country with a multi-party system. Most studies examined countries with a dual-party system. The second contribution is the use of two channels of district budget allocation, namely the line ministerial budget and local transfer. An earlier study on Indonesia only studied budget allocation using local transfer. Using data from 2010 and 2011, this paper concludes that the political business cycle did not seem to exist in the budget formulation at districts in Indonesia. It also concludes that budget allocation through local transfer responded to the needs of locals. However, the line ministerial allocation does not necessarily suit the needs of locals, especially access to safe water and electricity. As expected, the coalition parties do not have a significant impact on budget formulation at the district level. Perhaps their role is to provide support to the government formulation. Interestingly, the opposition parties also support the government's budget proposal through line ministerial transfer, but criticise the budget allocation through a local transfer mechanism.*

Keywords: Indonesia; Multi-Party System; Political Economy; State and Local Budget; Budget Transfer Mechanism

JEL Classification: H61, H62, H5, P16, H72

Article Received: 23 November 2018; Article Accepted: 27 December 2019

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1. Introduction

The state budget is central in achieving development goals. It defines priorities in development programmes. However, state budget formulation is not solely concerned with fiscal and economic consideration. The government initially formulates the state budget (through its Ministry of Finance). It then needs approval from the parliament before the budget is executed. As argued by Babajanian (2010), programmes are often allocated because of political constraints, rather than fiscal ones.

The politics of budget allocation have been a growing concern among scholars, and more recently among voters since it influences not only the direction of the country's future economic growth, but also the social well-being of the society at large (Castro and Martins, 2014). Shi and Svensson (2003) showed that budget allocation is a complex process, and it becomes difficult, especially when it involves both economic and political decision making. Nordhaus, Hibbs, and Sjahrir, Kis-Katos, and Schulze (2013) showed that patterns of political business cycles vary among countries. However, studies such as Nordhaus (1975), Alesina and Roubini (1997) and Castro and Martins (2014) analysed the cycles in countries with a dual-party system, i.e. incumbent versus opposition. Sjahrir et al. (2013) and Kis-Katos et al. (2017) analysed Indonesia as a multi-party system, but they studied only the local transfer mechanism in a multi-party system in Indonesia.

Each district in Indonesia, with a multi-party system, receives a budget allocation through two mechanisms from the central government. First are the line ministerial budget allocations, which are executed through projects in the districts. The responsibility for the output from the use of the budget lies in the central government. Second is a local transfer mechanism. Here the budget is transferred to the districts directly, and the districts have full responsibility to reach the output from the money allocation. Therefore, line ministerial budgets are executed in the districts (DIPA K/L mechanism) along with the transfer mechanism (Dana Perimbangan/Daper). Nevertheless, existing research only focused on a country with a two-party system. Research on Indonesia which has a multi-party system focuses solely on the local transfer mechanism.

This paper fills in the research gap by analysing both line ministerial budgets and local transfer mechanism in a multi-party

system. It investigates the political impacts on district budget formulations in a multi-party system through a dual-mechanisms (the line ministerial budget and local transfer) to determine whether politicians exercise significant impact on budget formulation in Indonesia.

There are three possibilities on how politicians influence state budget formulation. First, they may support the government budget meaning there is no, or minor, revision of the budget and no change in policies. Second, the politicians perform a major revision of the budget and government policies. Third, politicians abstain from the budget formulation process. This paper examines how political variables influence budget formulation and government policies. It uses selected cross-sectional economic and political data from 434 districts in Indonesia in 2010. In particular, it follows the political business cycle literature initiated by Nordhaus (1975).

This study is organised as follows. The next section briefly overviews the theoretical and empirical studies on political business cycles. The third section explains the data sources and empirical method. Section four presents the empirical results and discussions using both descriptive and regression analyses. The last section concludes the paper.

2. Political Business Cycle

2.1 Theoretical Models

Theoretically, the two main models for political business cycles are opportunistic and partisan models. Opportunistic models started with Nordhaus and Lindbeck and were then modified by Rogoff and Sibert, Cukierman and Meltzer, Rogoff, and Persson and Tabellini. Here, politicians are assumed to be only concerned with being re-elected. Therefore, they will use all their power to manipulate macroeconomic policies to please their constituents and obtain their votes in return.

The partisan model assumes that each party has a different ideology. The politicians are interested in exerting their ideologies into development programmes. This is possible if they win the election. In the opportunistic model, the politicians have no ideology to be implemented in the development programmes.

2.1.1 *Opportunistic Models*

Nordhaus and Hibbs showed that the incumbent could generate generous macroeconomic policies to reduce the unemployment rate. Rogoff (1990) showed that these policies are to increase government consumption spending so that voters can immediately receive the benefit. The incumbent will not use investment policies, because investment policies will not produce immediate results, which can be seen by voters before the election. When the people are happy before the election, people will re-elect the incumbent in the next election. However, following the Philip-curve theory, which argued that there is a trade-off between the unemployment rate and inflation rate, this generous policy may be followed by rising inflation after the election is over when the incumbent already wins. This pattern is what is known as the Political Business Cycle (PBC).

Using an expected-augmented Phillips curve, Nordhaus (1975) developed his model by assuming that politicians always want to remain in office and that the voters easily forget the past and are not aware of the trade-off between inflation and unemployment. At the same time, policymakers may also have incentives to control economic policies. Nordhaus also assumed that only two parties are facing each other, namely the incumbent and the challenger with fixed election time.

Nordhaus argued that voters are naïve; they easily forget what happened before. They forget the low unemployment rate is usually followed by higher inflation rate after the election. In contrast, Persson and Tabellini (1990) and Rogoff and Sibert made a rational opportunistic model as a modification of the traditional opportunistic model. They argued that the voters do not forget the past. Voters are aware that low unemployment rate will be followed by a high inflation rate. Voters are sufficiently wise to observe the incumbent's fiscal policies such as taxes and government consumption expenditures as well as the macroeconomic impact of such policies. Hence, Persson and Tabellini assumed that inflation expectations are rational and included the expected inflation rate into their rational opportunistic model.

2.1.2 *Partisan Models*

Like the opportunistic model, the partisan models also use the Phillips curve as it is an analytical tool. The traditional partisan

model developed by Hibbs divided political parties into two different objective functions. Hibbs (1977) named them the left-wing and right-wing parties. Initially, the left-wing party is concerned with reducing unemployment rates and the right-wing party with lowering inflation rate. These objectives show the constituents what the parties serve. The interests of the left-wing party are to please the low to middle-income citizens and labourers. In contrast, the right-wing party cares the upper middle-income voters, such as business and financial society.

Alesina (1987) included rational expectations into the model to explain how politicians attempt to include their ideologies in development programmes. As explained in Alesina, Cohen, and Roubini, voters have a good understanding of the distinction between the parties' ideology and development policies. If people have sufficient information about the parties, then they will vote a party the best suits their ideologies. In the partisan model, the voters are now aware of economic situation and policies, and will elect representatives based on their emotion.

2.2 *Empirical Studies*

Reichenvater conducted a comparative study of different countries. The Nordhaus' opportunistic model was tested in nine countries: Australia, Japan, France, Germany, New Zealand, Sweden, United Kingdom, Canada and the United States. By using annual data from 1947-1972, the study resulted in various conclusions. The political business cycles did not exist in Australia, Canada, Japan, and the United Kingdom. He found that there was no significant political business cycle in France and Sweden. Nevertheless, the political business cycle was significantly present in Germany, New Zealand, and the United States.

Reichenvater also found that both opportunistic and partisan models were supported by empirical evidence, though the extent of the influence varied. He also argued that the partisan and the rational partisan models were more successful at having empirical supports than the original Nordhaus model.

The Nordhaus original traditional and opportunistic models were also tested on economic growth and unemployment in 18 democratic OECD countries from 1960-1987 (Alesina and Roubini, 1992). The sample countries comprised Germany, New Zealand, the Netherlands, Italy, Norway, Sweden, Finland, Denmark, Australia,

Canada, the United States, the United Kingdom, Japan, Austria, France, Switzerland, Ireland and Belgium. The result showed that the political business cycle did not exist in these countries, except in Germany and New Zealand.

The traditional partisan model is also tested on determinants of unemployment and inflation under Democrat and Republican administrations in the United States for the period 1948-1972, and under the Labour Party and Conservative Party in the United Kingdom for the period 1948-1972. During the regimes of the Labour Party in the United Kingdom and Democrat in the United States, the unemployment rate declined. The governments spent more money to reduce the unemployment rate at the cost of the higher inflation rate. In contrast, when the Conservative Party in the United Kingdom and Republican in the United States governed, the governments unemployment rate rose because the governments limited their spending to reduce the inflation rate.

Furthermore, Alesina and Sachs (1988) found that the Nordhaus opportunistic model produced a different result. Utilising the United States data from 1949-1984, this model showed that recessions did not occur during Democrat administrations, but a recession was always immediately seen after the Republicans won elections.

Empirically, numerous studies have developed different approaches based on either opportunistic or partisan models. Some investigated whether the incumbent or the winning party inserted their political agenda in budget formulations. Examining the political business cycle in Portugal, Castro and Martins (2014) found that the opportunist model played a more dominant role than the partisan model on public spending. They also argued that the Portuguese government always used public spending policies to win re-election. Some preferred public spending has been seen in general public services, social protection, and healthcare. Spending concerning rights and politics in the budgeting process, as argued by Norton and Elson are also frequently observed. Norton and Elson suggested paying more attention to taxation and revenue issues in public spending policies. They argued politics as a critical issue in budget formulation and budget execution, such as a decentralisation policy. Hence, there is a need to improve understanding the role of politics in the budgeting process. Sharing the same idea, Shi and Svensson (2003) stated that increasing government expenditures and decreasing revenues produced a considerable deficit in the election year.

Akhmedov and Zhuravskaya examined Russia as a young democratic country. They focused on voters' awareness, the maturity of democracy, government transparency, and learning cycles in Russia's budgeting formulations. They found that Russian regions had been following opportunistic political cycles in their budget policies every eight years since 1996. They were also concerned about the importance of symmetric information and the maturity of democracy in influencing these cycles. Therefore, they believed in the importance of education, urbanisation, democracy level, government transparency, and media independency to minimise the size of the political business cycles in Russia's budget formulation.

Political business cycles can also appear in fiscal surplus policies. Arvate, Avelino and Tavares (2009) found that it might increase the incumbent's chance to win the second round of the election. In Brazil where the government could manage their debts and affected the budget surplus; the incumbent was then re-voted by the people as a reward. This confirms that debt restructure policy may increase the incumbent's electability to win the second round of elections in Brazil. They argued that education level played an important role in governor elections. More educated people are believed to observe the state's fiscal policy better. Thus, people will appreciate a governor who performs better in fiscal management.

An interesting study by Brender and Drazen showed that political business cycles are more observed in developing and young democratic countries. In their study, the governments manipulated fiscal policy to attract voters and win the second election. This is possible because naïve voters form a major percentage in such countries. Since voters could not observe the incumbent's manipulation in macroeconomic policies, they voted the incumbent for the second election.

Sjahir, Kis-Katos, and Schulze used the data of Indonesia during 2001-2009. Since 2004 Indonesia has been using direct election. They found that budget cycles are only seen in a direct election at a district level in Indonesia, especially when the head of the local government is willing to run in the second term as an incumbent since he or she owns the discretion to set up and spend the local budget. However, they did not find any political business cycle in indirect elections. Therefore, according to this conclusion, politicians need a different approach to win the voters.

Kis-Katos and Sjahrir, used a much larger data set, from 1994 until 2009, including the election before the reform era, started in 1998. They used 271 districts and budget panel data for education, health, and infrastructure sectors. They found that politics has less impact on local public investment in education, health, and infrastructure sectors. They found that political change in local government head elections (from indirect election to direct election) does not affect local public investment. Furthermore, they limited their study to local transfer data.

In conclusion, existing research focused on two-party system countries. If they worked on a country with a multi-party system, they limited to analyse local transfer data. Hence, this paper concentrates on investigating the roles of the coalition parties that support the incumbent and the opposition parties in the budget formulation by applying two mechanisms – the line ministries budget and the local transfer mechanisms – in Indonesia.

3. The Data and Empirical Method

The statistical analysis of the paper is based on economic and political data from districts in Indonesia. However, the variables needed in this statistical analysis are only available in 434 from 465 districts in Indonesia. A district can be either a regency or a city. A city is usually more developed than a regency.

The exclusion of a few districts in bias and further research should examine this possibility and improve the data collection. The paper uses the 2009 national election data from the Indonesia Election Commission (KPU) to find the number of politicians in the House of Representatives (DPR), which is composed of both coalition and opposition representatives. The Demokrat Party led the government's coalition of parties: Golongan Karya (Golkar), Partai Keadilan Sejahtera (PKS), Partai Kebangkitan Bangsa (PKB), Partai Amanat Nasional (PAN) and Partai Persatuan Pembangunan (PPP). On the other side, the Partai Demokrasi Indonesia Perjuangan (PDIP) party together with other parties: Partai Hati Nurani Rakyat (Hanura) and Partai Gerakan Indonesia Raya (Gerindra) stood as the opposition. Hence, politics is measured by the proportions of politicians who represent the districts in the House of Representatives, from both coalition parties and opposition parties. To study the existence of a political business cycle, this paper uses the 2010 local elections at the district level. From 434 districts, there

were 188 local elections in that year (2010). Interestingly, coalition parties at the district level can be different from that at the national level. Some parties can be in the same coalition at the national level, but they can compete head-to-head in the local elections at the district level.

This paper uses the number of households that have no access to electricity, no access to safe water, and the number of unemployment from Statistics Indonesia (BPS) to measure the economic condition. The three variables are selected because they are basic needs for people to live in modern society. People need jobs to generate income in order to finance their lives. Electricity is the primary source of energy needed by every family to support their daily activities. People also need safe water to have a basic healthy life. Therefore, the government must provide those public services through either the line ministerial budget mechanisms or local transfer mechanisms. Those budget allocations for all economic variables are calculated based on the data from the Ministry of Finance, Republics of Indonesia in the year 2011. However, as argued in Norton and Elson (2002), politics influence state budget formulation through allocation in public expenditure.

This paper excludes the budget for education and health, which has been the focus of Kis-Katos et al. (2017). In Indonesia, those budgets are mandatory spending. Both central government and local government must allocate 20% of the total budget for education (Law No. 20/2003). The central government must allocate 5% of the national budget for health. At the same time, the local government must allocate 10% of the local budget for health (Law No. 36/2009). Therefore, this paper assumes that there is no political role in formulating education and health budget.

This paper does not include six districts in the Province of DKI Jakarta in the model because those districts are only administrative jurisdictions and each is led by the head of an administration who is appointed by the governor. Hence, there are no political issues in district budget formulation in Jakarta. This study examines the nominal budget per capita received by districts in 2011, which was formulated in 2010, considering the economic and political conditions at that time (2010). Budget for year t is formulated in year $t-1$. Government considers every single economic and political issues in year $t-1$. Therefore, this paper utilises economic and political conditions in 2010 in 434 districts, and how they influence the budget allocation that is received by districts in 2011. Utilising

selected cross-sectional data in 434 districts, the paper investigates the spending as depicted in the following three equations.

$$\ln(Daper_cap)_{it} = \alpha + \beta No_list_{it-1} + \gamma Un_{it-1} + \delta No_water_{it-1} + \varepsilon Koal_{it-1} + \theta Opo_{it-1} + \vartheta Elect_{it-1} + \mu \quad (1)$$

$$\ln(Dipa_cap)_{it} = \alpha + \beta No_list_{it-1} + \gamma Un_{it-1} + \delta No_water_{it-1} + \varepsilon Koal_{it-1} + \theta Opo_{it-1} + \vartheta Elect_{it-1} + \mu \quad (2)$$

$$\ln(Bud_cap)_{it} = \alpha + \beta No_list_{it-1} + \gamma Un_{it-1} + \delta No_water_{it-1} + \varepsilon Koal_{it-1} + \theta Opo_{it-1} + \vartheta Elect_{it-1} + \mu \quad (3)$$

This paper uses cross-section data with time-lag for all independent variables. It tests the significance of economic and political variables, to examine whether the budget formulation is influenced by economic variables, political variables, or both.

In terms of the Indonesia National Budget, Daper is described as the local government spending that is financed by the central government. This mechanism is used to finance the districts' fiscal gap in their development programmes. Therefore, Daper allocation based on economic formulation considers each district's economic needs, particular no access to safe water, no access to electricity, and unemployment rate. The local governments have full authority and responsibility to manage the budget.

On the other hand, DIPA is called as the central government spending. It is a state budget which is allocated through line ministries to finance the districts' development programmes. However, the budget is executed in the districts, so the line ministries have the authority and responsibility in the budget management. DIPA allocation depends on elites' interests as a result of the line ministries leader's policies and the discussion between the government and politicians in the House of Representatives. Hence, this study concerns the roles of politicians in the budget allocation received by districts.

Though the two mechanisms are different in implementation, they have the same process: ongoing political negotiations in the parliament. Hence, this paper uses Daper, DIPA, and in total

allocation (Daper plus DIPA allocation received by districts) as the dependent variables to examine how the independent variables influence the budget received by districts.

The dependent variable, $\ln(\text{Bud_cap})$, is the growth of the total budget received by districts i from both mechanisms, i.e., DIPA and local transfer (Dana Perimbangan/Daper) in 2011 compared to 2010. The variable $\ln(\text{Dipa_cap})$ refers to the growth of line ministries nominal budget per capita executed in district i in 2011. Thus, $\ln(\text{Daper_cap})$ is the growth of the nominal budget received by district i through local transfer mechanism in 2011.

The dependent variables are shown in \ln to represent the changes in budget allocation received by districts in the year 2011 compared to 2010 given districts' economic and political situations in 2010. Each dependent variable is not correlated to each other, because Daper and DIPA have different mechanism allocations.

Independent variables, No_list is the percentage of households with no access to electricity in district i in 2010 and No_water shows the percentage of household with no access to safe water in district i in 2010. Both data sets were produced by Statistics Indonesia through the 2010 National Social Economic Survey (SUSENAS). The Un is the ratio of unemployed people to the labour force in district i in 2010, provided by Statistics Indonesia based on the 2010 National Labour Survey (SAKERNAS)

Furthermore, the Indonesia Election Commissions provided data for three political variables. Koal refers to the number and proportion of politicians from the coalition in the House of Representatives who represent district i ; Opo shows the number and proportion of politicians from the opposition in the House of Representatives who represent district i . The last variable is Elect , which is dummy 1 for districts running local elections in 2010 and 0 for districts that did not run local elections in 2010.

There are three possible results from political variables. If the result is significant and positive (+), the politicians are likely to have supported the government policies through the draft of the budget, and they strengthen the government proposal. Significant and negative sign (-) indicates the politicians do not support the draft of the budget prepared by the government. They change the budget allocation for the district contrary to what the government wants. Insignificant coefficient means that politicians abstained from the government budget proposal.

4. Empirical Results and Discussion

4.1 Descriptive Analysis

In terms of economic conditions, Table 1 shows that the average number of households without access to electricity in the 434 districts is around 12.35%. The district with the highest level of “no access to electricity” is Pegunungan Bintang (94.14%). Those with the lowest (zero percentage) of “no access to electricity” are Cirebon, Klaten, Sukoharjo, Madiun, Mojokerto, Badung, and Pontianak. This condition does not only indicate the existence of inequality of electricity services in Indonesia, but it also shows that we can still find a district with no electricity at all.

A worse condition is observed in safe water services. On average, there are around 45.21% households that do not have access to safe water. The data shows that almost half of households in Indonesia live below the basic living standard safe water services. The maximum is 98.98% in the regency of Asmat, in the Island of Papua, and the minimum is in the city of Banda Aceh (1.36%), in the Island of Sumatra.

Districts in Indonesia are also facing unemployment problems, though not too high. The rate of unemployment is around 6.43% on average; with the highest at 19.84% in the city of Cilegon, in the Island of Java and a minimum at 0.13% in the regency of Paniai in the Island of Papua.

Table 1 also shows that every district has at least five representative speakers from coalition parties in parliament (DPR). The regencies of Garut and Tasikmalaya, and the city of Tasikmalaya have the highest numbers, with nine speakers to represent each district in DPR. Then, there are 14 districts with the lowest number speakers (two speakers) from coalition parties. They are 12 regencies and two cities: regencies of Belitung Timur, Bangka, Bangka Barat, Bangka Tengah, Bangka Selatan, Kepulauan Sula, Halmahera Selatan, Halmahera Utara, Halmahera Tengah, Halmahera Timur, Halmahera Barat, and Halmahera Utara, and cities of Pangkal Pinang and Ternate.

In contrast, on average, every district there is at least one speaker from opposition parties in DPR. There are eight districts from the Province of Bali where they have five speakers, which is the highest numbers compared to other districts in Indonesia. They are regencies of Klungkung, Karangasem, Bangli, Buleleng,

Tabanan, Gianyar, Badung and city of Denpasar. Then, there are 97 districts which do not have any representative speakers from opposition parties in DPR.

Table 1: Descriptive Statistic

Variable	Obs	Mean	Std. Dev	Min	Max
<i>Koal_abs</i> ₂₀₁₀	434	5.50	1.66	2	9
<i>Opo_abs</i> ₂₀₁₀	434	1.67	1.21	0	5
<i>No_list</i> ₂₀₁₀	434	12.35	16.68	0	94.14
<i>Un</i> ₂₀₁₀	434	6.43	3.66	.13	19.84
<i>No_Water</i> ₂₀₁₀	434	45.21	19.66	1.36	98.98
<i>Elect</i> ₂₀₁₀	434	.43	.50	0	1
<i>Koal_pctg</i> ₂₀₁₀	434	1.00	.30	.36	1.64
<i>Opo_pctg</i> ₂₀₁₀	434	.30	.22	0	.91
<i>budget_cap</i> ₂₀₁₁	434	3508405	3214080	304761.1	3.33e+07
<i>dipa_cap</i> ₂₀₁₁	434	284248.3	613109.1	7235.27	6683946
<i>daper_cap</i> ₂₀₁₁	434	2807710	3001458	256924.3	3.21e+07
<i>ln_budget_cap</i> ₂₀₁₁	434	14.81	.69	12.63	17.32
<i>ln_dipa_cap</i> ₂₀₁₁	434	11.85	1.01	8.89	15.72
<i>ln_daper_cap</i> ₂₀₁₁	434	14.54	.73	12.46	17.28

Furthermore, every district has its representatives in the DPR; with an average of almost 1% from the coalition party and 0.3% from the opposition party in each district.

However, having many economic problems and representatives in DPR does not necessarily mean the districts will receive a high budget allocation. In the year 2011, the regency of Pegunungan Bintang has the worst electricity problem and regency of Asmat has the worst issue on safe water. However, the regency of Supiori receives the highest allocation in total budget per capita, with 33.3 million rupiah in total (ministerial+local). Through the local transfer mechanism, the regency of Supiori gained the highest budget per capita by 32.1 million rupiah. Based on DIPA as the measure, the city of Bandung received the highest budget of 6.7 million rupiah per capita. In other words, though the highest economic needs are seen in regencies of Pegunungan Bintang and Asmat, the highest budget allocation was given to the regency of Supiori through local transfer and to the city of Bandung through line ministerial scheme.

The city of Pasuruan is another illustration. It has one of districts with the lowest budget as total and local transfer, only 0.3 million rupiah per capita in total budget and only 0.26 million rupiah

through local transfer. On the other hand, city of Pasuruan is not a rich city.

The results indicate that there is no guarantee that the districts with the highest economic needs will receive the highest budget allocation from the government and vice versa for the districts with the lowest economic needs. Therefore, economic reasons showing local needs have not been necessarily the criteria to decide budget formulation. Politics can play an important role

Nevertheless, the government’s budget allocation to districts is actually aimed to improve public service delivery in the districts. Thus, the budget allocation policy needs to be reformed, to reflect district’s demand for public goods and services, rather than political demand. Table 2 shows that most correlations are less than 0.6, indicating that there is no strong correlation among both independent and dependent variables. Therefore, a regression analysis using these variables is less likely to suffer from serious multi-collinearity.

Table 2: Correlation Matrix

	ln_bu dget_ cap20 11	ln_di pa_c ap20 11	ln_da per_c ap201 1	Koal _abs 2010	Opo _abs 2010	No _lis t20 10	U n2 01 0	No_ Wat er20 10	Ele ct2 01 0
ln_bu dget_ cap20 11	1.00								
ln_dip a_cap 2011	-0.27	1.00							
ln_da per_c ap201 1	0.93	-0.57	1.00						
Koal_ abs20 10	-0.11	0.03	-0.09	1.00					
Opo_ abs20 10	-0.28	0.16	-0.30	0.10	1.00				
No_li st201 0	0.32	-0.43	0.41	- 0.06	- 0.04	1.0 0			

Un2010	0.07	0.37	-0.08	0.09	-0.09	-0.43	1.00		
No_Water2010	0.13	-0.52	0.31	0.04	-0.06	0.58	-0.45	1.00	
Elect2010	-0.02	-0.01	-0.01	-0.03	0.03	-0.01	-0.09	-0.05	1.00
	ln_budget_cap2011	ln_dipa_cap2011	ln_daper_cap2011	Koal_pctg2010	Opo_pctg2010	No_list2010	Un2010	No_Water2010	Elect2010
ln_budget_cap2011	1.00								
ln_dipa_cap2011	-0.27	1.00							
ln_daper_cap2011	0.93	-0.57	1.00						
Koal_pctg2010	-0.11	0.03	-0.09	1.00					
Opo_pctg2010	-0.28	0.16	-0.30	0.10	1.00				
No_list2010	0.32	-0.43	0.41	-0.06	-0.04	1.00			
Un2010	0.07	0.37	-0.08	0.09	-0.09	-0.43	1.00		
No_Water2010	0.13	-0.52	0.31	0.04	-0.06	0.58	-0.45	1.00	
Elect2010	-0.02	-0.01	-0.01	-0.03	0.03	-0.01	-0.09	-0.05	1.00

4.2 Regression Analysis

Table 3 indicates that the impact of political variables on budget allocation, without being controlled by economic variables. The variable “Koal”, percentage of coalition parties, is not significant,

implying that the coalition parties support the budget proposed by the government by not making any change on the budget. On the other hand, the variable “Opo”, percentage of opposition parties, are significant and negative on Daper and total, implying political influences on budget allocation at Daper and total. Interestingly, opposition parties support government budget allocation through DIPA, shown by the significant and positive coefficient of Opo on DIPA.

Variable “Elect”, the presence of local election in a district, is not significant. The presence of election at the district level does not seem to affect budget allocation in that district. The political business cycle may not exist in the districts.

Table 3: Impacts of Political Variables Only - Koal and Opo in percentage

	(1) <i>ldaper_cap</i>	(2) <i>ldipa_cap</i>	(3) <i>lbudget_cap</i>
<i>Koal_pctg</i> ₂₀₁₀	-0.154 (-1.27)	0.0487 (0.29)	-0.187 (-1.63)
<i>Opo_pctg</i> ₂₀₁₀	-0.957*** (-7.83)	0.708*** (3.32)	-0.863*** (-7.20)
<i>Elect</i> ₂₀₁₀	-0.00200 (-0.03)	-0.0243 (-0.26)	-0.0160 (-0.25)
<i>_cons</i>	14.99*** (117.15)	11.60*** (62.90)	15.27*** (127.66)
N	434	434	434
R-squared	0.093	0.025	0.087
F	20.96	3.970	18.49

Note: *t* statistics in parentheses: * $p < 0.05$, ** $p < 0.01$
Koal refers to the percentage of politicians of coalition parties;
Opo refers to the percentage of politicians of opposition parties

Table 4 shows the impact of economic and political variables on state budget received by the districts. The impact of political variables is controlled with economic variables. All economic variables have a significant and positive impact on Daper, DIPA, and Budget per capita. That means the budget allocation responses to the economic needs (no access to safe water services, no

electricity services, and high unemployment) in the district. An exception is an insignificant impact of “no water access” on total budget per capita. The need for water access does seem to be accommodated in district budget per capita. Another exception is the significant negative impact of “no water access” on DIPA. This result may indicate that existence of political influence on DIPA budget for access to water services.

The Daper budget allocation shows some different results. Table 4 shows the significant and negative coefficient of “no water access” and “no electricity” on DIPA allocation. The district with a greater need for water access or electricity is more likely to receive a smaller amount of DIPA budget allocation.

The results for political variables remain the same as in Table 3, without being controlled by economic variables. The political variables provide support to the findings on economic variables. As shown in Tables 3 and 4, the variable on “Koal” (percentage of coalition parties) has no significant impact on the three budget allocations. These finding may imply that the coalition parties do not do anything to the budget allocation. On the other hand, the variable “Opo” is significant and negative on Daper and total budget, implying that the opposition party may have tried to revise the budget. Interestingly, the coefficient is significant and positive for DIPA. The presence of opposition party strengthens the budget allocation according to economic needs. Further studies should be carried out to explain this phenomenon.

Table 4 also finds the insignificant impact of variable “Elect”, implying that the presence of local election in a district does not influence budget allocation in that district. It may mean that there is no political business cycle in the districts.

Table 4: Impacts of Economic and Political Variables - Koal and Opo in percentage

	(1) <i>ldaper_cap</i>	(2) <i>ldipa_cap</i>	(3) <i>lbudget_cap</i>
<i>No_list</i> ₂₀₁₀	0.0162*** (6.82)	-0.00916*** (-3.02)	0.0176*** (7.45)
<i>Un</i> ₂₀₁₀	0.0254** (2.39)	0.0419*** (2.94)	0.0419*** (4.02)

<i>No_Water</i> ₂₀₁₀	0.00499** (2.36)	-0.0187*** (-5.91)	-0.00104 (-0.50)
<i>Koal_pctg</i> ₂₀₁₀	-0.149 (-1.39)	0.0234 (0.16)	-0.180 (-1.72)
<i>Opo_pctg</i> ₂₀₁₀	-0.849*** (-6.72)	0.647*** (3.51)	-0.761*** (-6.14)
<i>Elect</i> ₂₀₁₀	0.0284 (0.46)	-0.0377 (-0.48)	0.0132 (0.21)
<i>_cons</i>	14.35*** (81.30)	12.34*** (59.32)	14.78*** (83.86)
N	434	434	434
R-squared	0.266	0.332	0.224
F	26.22	25.16	22.71

Note: *t* statistics in parentheses: * $p < 0.05$, ** $p < 0.01$

Koal_pctg refers to the percentage of politicians of coalition parties;

Opo_pctg refers to the percentage of politicians of opposition parties.

Tables 5 and 6 discuss the impact of political variables measured in an absolute number of coalition parties and opposition parties. In Table 5, the impact of political variables is not controlled with economic variables. The results are similar to the ones in Table 3, when political variables are measured in percentage. The coalition parties do not have an influence on all budget allocations. The opposition parties have an influence on Daper and total budget. Their presence reduces the amount of budget allocated to Daper and total budget. However, the presence of opposition strengthens the budget allocation in DIPA.

The magnitude of the opposition coalition parties in Table 5 is smaller than those in Table 3. This means that percentage in opposition coalition is more important in influencing the budget allocation than the absolute number in the opposition coalition. This result on the importance of percentage may indicate the role of voting in politicians' decision making.

Similar to the result in Table 3, Table 5 shows that the variable "elect" is not significant. Presence of local election at the district may not have influenced all budget allocations in the district. Political business cycles may not exist in districts.

Table 5: Impact of Only Political Variables - Koal and Opo in absolute number

	(1) <i>ldaper_cap</i>	(2) <i>ldipa_cap</i>	(3) <i>lbudget_cap</i>
<i>Koal_abs</i> ₂₀₁₀	-0.0276 (-1.26)	0.00856 (0.28)	-0.0336 (-1.62)
<i>Opo_abs</i> ₂₀₁₀	-0.174*** (-7.79)	0.129*** (3.31)	-0.157*** (-7.17)
<i>Elect</i> ₂₀₁₀	-0.00217 (-0.03)	-0.0241 (-0.25)	-0.0161 (-0.25)
<i>_cons</i>	14.99*** (117.49)	11.60*** (63.16)	15.26*** (128.09)
N	434	434	434
R-squared	0.092	0.024	0.086
F	20.70	3.947	18.27

Note: *t* statistics in parentheses: * $p < 0.05$, ** $p < 0.01$

Koal refers to the number of politicians of coalition parties;

Opo refers to the number of politicians of opposition parties

Table 6 shows what happens to political variables when they are controlled with economic variables. As in Table 4, when political variables are measured in absolute number, the control by economic variables does not change the result. Coalition parties do not change the budget allocation. The opposition parties lower the budget allocation in Daper and total but raise the budget allocation in DIPA. The political business cycle is not seen in the districts. The impact of economic variables is similar to those in Table 4 when political variables are measured in percentage. Most budget allocations follow economic needs in the district, with two exceptions. First is that variable “no access to safe water” is not significant in relation to the total budget. Second, variables “no access to safe water” and “no electricity” have significant and negative signs on DIPA. That means that districts with greater needs on electricity and safe water are likely to receive a smaller amount of budget allocation to DIPA. Representatives at the local level may now more about the local condition, and hence they do not change the Daper. However, a representative at the national

level may not be aware of local needs, and therefore they do not allocate much funding to respond to local needs.

Table 6: Impacts of Economic and Political Variables - Koal and Opo in Absolute Number

	(1) <i>ldaper_cap</i>	(2) <i>ldipa_cap</i>	(3) <i>lbudget_cap</i>
<i>No_list</i> ₂₀₁₀	0.0162*** (6.82)	-0.00917*** (-3.02)	0.0176*** (7.45)
<i>Un</i> ₂₀₁₀	0.0254** (2.39)	0.0419*** (2.94)	0.0419*** (4.02)
<i>No_Water</i> ₂₀₁₀	0.00497** (2.35)	-0.0187*** (-5.91)	-0.00106 (-0.50)
<i>Koal_abs</i> ₂₀₁₀	-0.0266 (-1.38)	0.00398 (0.15)	-0.0323 (-1.71)
<i>Opo_abs</i> ₂₀₁₀	-0.154*** (-6.67)	0.117*** (3.49)	-0.138*** (-6.11)
<i>Elect</i> ₂₀₁₀	0.0282 (0.45)	-0.0375 (-0.48)	0.0131 (0.21)
<i>_cons</i>	14.35*** (81.25)	12.34*** (59.38)	14.77*** (83.84)
N	434	434	434
R-squared	0.265	0.332	0.223
F	26.07	25.15	22.58

Note: *t* statistics in parentheses: * $p < 0.05$, ** $p < 0.01$

Koal_abs refers to the number of politicians of coalition parties;

Opo_abs refers to the number of politicians of opposition parties

In short, this paper finds that politics play an essential role in the district's budget formulation. It is different from the result obtained by Kis-Katos et al. (2017), which stated that politics has fewer impacts on local expenditures. However, Kis-Katos used the budget in education, health and infrastructure sectors. In fact, the budget for education and health is mandatory spending, and there is no effect of economic and political variables on local

expenditure on education, health and infrastructure. Therefore, this paper does not include the budget for education and health. Statistically, this paper also finds an insignificant impact of coalition parties on budget allocation. This result may indicate that the coalition parties abstained from budget allocation. They do not change the budget's proposal through both mechanisms. Finally, even though the opposition politicians are the minority, the proportion is sufficiently large to influence the government's budget proposal when the coalition politicians have the same budget policy with the government.

5. Conclusion

State budget formulation is supposed to reflect the needs of the people. However, political influences are often seen in the formulation. Politicians may be more interested in pleasing their constituents. Moreover, politics may also be used to win an election, especially when one of the competitors is the incumbent, resulting in the so-called political business cycle. This paper examines the influence of politics on budget allocations at the district level in Indonesia, a country which uses a decentralised system giving power to the districts to manage their budget.

The paper contributes to the literature in politics of state budgeting in Indonesia as a democratising country with a multi-party system. Most literature focused on countries with a two-party system in mature democratic countries. The second contribution is the use of two channels of districts budget allocation, namely line ministerial budget and local transfer. An earlier study on Indonesia only studied the budget allocation using local transfers.

This paper uses published data from Statistics Indonesia for its variables on local needs in 2010. The data on politics is based on Indonesian Election Committee (KPU) relating to the 2009 election. The data on budget is calculated from the Ministry of Finance, the Republic of Indonesia in 2011.

It concludes that the political business cycle did not seem to exist in the budget formulation across districts in Indonesia. It also concludes that budget allocation through local transfer responded to the needs of locals. However, the allocation through line ministerial does not necessarily suit the needs of locals, especially access to safe water and electricity.

As expected, the coalition parties do not have a significant impact on budget formulation across districts. Perhaps their role is to provide support to government formulation. Interestingly, the opposition parties also support the government's budget proposal through line ministerial transfer, but they criticise the budget's proposal through the local transfer mechanism. Further studies should be carried out to explain this phenomenon.

In short, this study provides important information as considerations for decision-makers to manage the public sector, fiscal, and political system policies based on relationships between economic and political variables in the Indonesian budgeting system, especially in remote areas, less developed districts, and districts outside Java Island. It is also very important for the public to understand the natural behaviour of politicians on the district budget formulation. Finally, as a caveat, only 188 of the total 434 (43.32%) districts had local elections in 2010. Therefore, future studies should use a larger number of districts by employing the election data of years in 2015 and 2018 in order to capture the impacts of political business cycles better. Further studies should also investigate non-election periods (either before or after the election years), and compare the results to show a dynamic political role in the budget formulation in Indonesia.

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