BEHIND BUDGET DEVIATION IN THE INDONESIAN LOCAL GOVERNMENT'S ELECTORAL CYCLE

Sutaryo♣
Universitas Sebelas Maret

Daniyah Ainur Rossa
Universitas Sebelas Maret

Y. Anni Aryani
Universitas Sebelas Maret

Isna Putri Rahmawati
Universitas Sebelas Maret

Muhtar
Universitas Sebelas Maret

ABSTRACT

We examine factors behind budget deviation in the Indonesian local government's electoral cycle. By using 1172 unbalanced panel data on 393 local governments in two election years (2013 and 2015), we test four political factors and three socio-economic factors on the local government's budget deviation. Our findings show that only electoral cycle affect the total budget in general. On separated test we run on revenue deviation and expenditure deviation, we find three factors affect both revenue deviation and expenditure deviation, they are electoral cycle, population, and income per capita (IPC). Political alignment and unemployment rate only shows effect on expenditure deviation, while political coalition and political competition do not seem to show effect on both model tested. The only factor that has consistent result both in main test or separated test is electoral cycle. Thus, our research provides empirical evidence supporting the findings on relationship between electoral cycle and budget deviation.

Keywords: budget deviation, electoral cycle, political coalition, political competition, political alignment, population, income per capita, unemployment

1. INTRODUCTION

Budget carries out important role as an instrument for government to achieve their objectives. In order to perform well, it is necessary for budget to be transparent and accessible to the taxpayers (Ríos, Benito, & Bastida, 2013). Lack of transparency may lead to confusion and ambiguity, as it can be used by government to hide problems and manipulation, either by understating or overstating revenues, expenditures, or liabilities (Alesina & Perotti, 1996). This is what urge the

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♣ Corresponding author: Universitas Sebelas Maret, Jalan Ir Sutami 36A Kentingan Jebres Surakarta, Indonesia 57126, +6271 666441 sutaryo@staff.uns.ac.id

legislative bodies, as the representation of the principals or citizens, to demand accountability on governments and the related officials, as their agents (Aikins, 2012).

On the local government level, Regional Budget represents the local government's financial plans which have been approved by the Legislative Council. With the not-so-tight regulation in Regional Budget, there is enough room for the district head to make use of this budget to gain an individual advantage. This behavior and pattern are most likely related to the political budget cycle. Sjahrir, Kis-Katos, and Schulze (2013) find significant budget cycles in low-transparent local governments, most likely if the head is running for reelection. However, even in high-transparency local governments, fiscal instruments may still be used to increase voter support (Vicente, Benito, & Bastida, 2013).

Politicians are likely ambiguous, they do not have incentives to adopt transparent practices (Alesina & Perotti, 1996). On local government, this applies mostly during electoral cycle, where district heads implement policies that will give them more support and popularity. They can forecast optimistic revenue to gain ex-ante popularity and support or forecast pessimistic revenue to gain ex-post reputation (Benito, Guillamón, & Bastida, 2015).

Figure 1 shows the average budgeted and actual revenues and expenditures for the year 2010-2013 and 2012-2015. Revenue deviation shows a different pattern of cities/regencies holding an election in 2013 and 2015. The greatest revenue deviation on the cities/regencies conducting an election in 2013 occurs on a year before the election. Meanwhile, the cities/regencies holding an election in 2015, revenue deviation happen to be the highest in three years before the election and on the election year with a different direction. Expenditure deviation shows a similar pattern in both cases, where the greatest expenditure deviation occurs in the election year itself.

Figure 1: Revenue and Expenditure Deviations
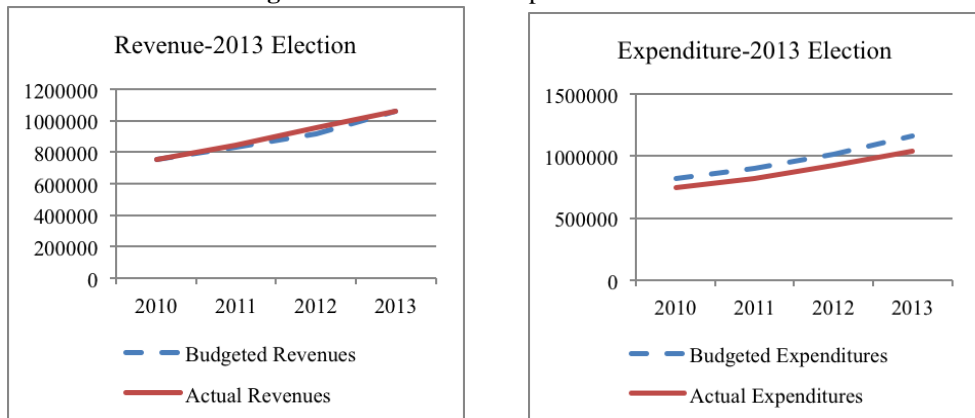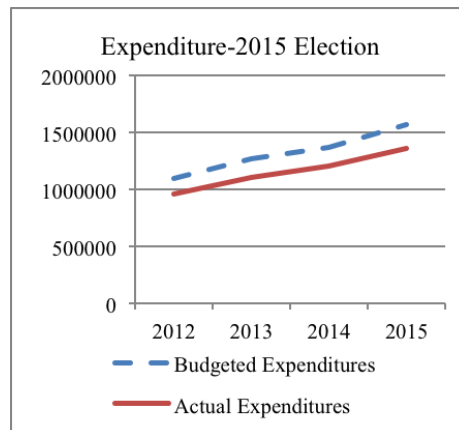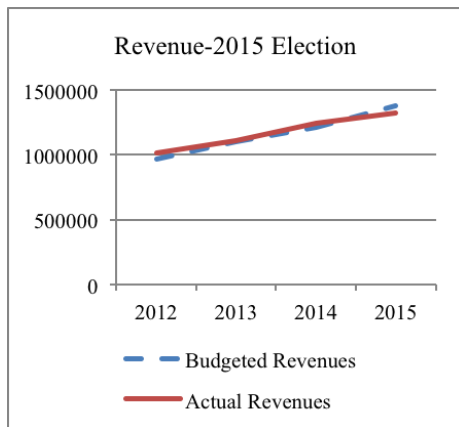
As the district head has the interest to fulfill, it is natural if there is budget deviation during budget forecasting. Overestimation in revenue may allow governments to increase services without increasing tax immediately. Underestimation in revenue may provide a cushion to anticipate a shortage in revenue or expenditures (Benito et al., 2015; Lago-Peñas & Lago-Peñas, 2008). However, a systematic deviation in the budget may be an indication of budget manipulation, which is one of the doors to the act of corruption.

Corruption cases related to budget manipulation and district head are quite serious, although not at an alarming level yet. Cases related to budget manipulation ranked third during the period of 2004-2017, which amounted 46 of a total of 594 corruption cases. During that period, almost a tenth of corruption perpetrators are mayor/regent/vice, and 132 of 594 corruption cases occur in cities/regencies owned institution (Komisi Pemberantasan Korupsi, 2017). A report from Indonesia Corruption Watch shows that in the period of 2010-2015, 183 heads of regions (provinces, cities, and regencies) became suspects in corruption cases. The average is 30 cases per year, and this is only from the head of regions.

The inconsistency in findings related to budget deviation and electoral cycle makes this topic interesting to research. There are researchers such as Larkey and Smith (1989), Drazen and Eslava (2010), Bischoff and Gohout (2010) who do not seem to find the relation between those two variables. However, the findings of Lago-Peñas and Lago-Peñas (2008), Veiga and Veiga (2007), Vicente et al. (2013), Benito et al. (2015) show that electoral cycle does affect budget deviation.

Researches on Indonesian local government has provided evidence on the existence of political budget cycle at the local level. One of them is Sjahrir et al. (2013) who find that there is a significant budget cycle in the direct elections at the local level, mostly if the district head is running for reelection. Since the research only aimed to prove the existence of political budget cycle, it does not test the factors inducing budget deviations.

This study is an attempt to gain more empirical evidence on the effect of political and socio-economic factors on budget deviations especially in Indonesian local governments. To deliver

our research result systematically, this paper will be presented following this outline: literature review, methodology, findings, conclusion, limitation and future studies.

2. LITERATURE REVIEW

Budgeting is an inherently discretional process, in which estimates of the future relies on (Anessi-Pessina & Sicilia, 2015). In accordance with authorization and oversight function of budget, authorized spending is constrained by the expected revenues. Thus, it is substantial for the estimation to be as precise as possible. However, politicians typically do not have the incentive to adopt the most transparent practices (Alesina & Perotti, 1996).

There are two theoretical arguments related to politicians' ambiguity. The first theory is "fiscal illusion", explaining how non-transparency causes underestimation of the cost of public programs to uninformed and naive voters (Buchanan and Wagner, 1977 as cited in Alesina & Perotti, 1996). The second theory explains even if the voters are rational, strategic ambiguity provides advantages to policymakers (Rogoff, 1990 as cited in Alesina & Perotti, 1996). These confirm why politicians do not have the incentive to be transparent. It is the ambiguity that gives them opportunities, regardless who the voter is.

Flexibility in the budget may be a form of politicians' ambiguity, as lax budget gives more room to adjust their strategy. Overestimation on revenues may provide a spare budget to increase services without immediate tax increase with lower political cost, while underestimation may provide a cushion for unanticipated expenditures or shortages (Benito et al., 2015). Politicians may choose less upward deviations in forecasted deficits and the breaking of promises at the price of less generosity in fiscal promises to gain more popularity and support ex-ante with the risk of worse reputation ex-post if performance is controlled and excuses are not completely convincingly. On the other hand, they may choose more generosity in the latter at the price of more upward deviation in deficits and the breaking of promises, to gain a better reputation ex-post by sacrificing popularity in ex-ante (Lago-Peñas & Lago-Peñas, 2008).

There are at least two potential sources of error in statements about what has happened or what will happen: unintentional and intentional errors (Larkey & Smith, 1989). First, inadequate models and/or inadequate data for interpreting past events and forecasting future events may cause an unintentional error. The forecasts from inadequate models and/or inadequate data may or may not be biased. If the forecasts are biased, the biases may or may not be intentional. Second, misrepresentation of past events in attempts to improve future consequences is considered as intentional bias. Needless to say, forecasts from misrepresented models will be biased.

2.1.   *Budgeting and Election in Indonesian Local Government*

After the 1997/1998 economic and political crisis, Indonesian budgeting system is massively transformed. There are four major transformations involved: a set of new legal framework, a unified and comprehensive budget, fiscal decentralization, and a role transformation of the Parliament (Blöndal, Hawkesworth, & Choi, 2009). The new legal framework consists of a set of state finances laws: Law Number 17 of 2003, Law Number 1 of 2004, and Law Number 15 of

2004. The second transformation is merging the previously separated operating budget, capital budget, and significant off-budget into a comprehensive budget. The third transformation involving decentralization program, including political autonomy and function transfer. Lastly, the role of Parliament is considerably transformed in the budget process, given the power to amend budget proposal submitted by the government.

According to Law No. 17 of 2003, state finances are all rights and obligations of state that can be valued in money, whether in cash or goods that can be owned by the state related to the implementation of rights and obligations. There are two kinds of budget explained in the Law No. 17 of 2003: the State Budget and the Regional Budget. Unlike in other governments, in Indonesia, the Regional Budget has yet to be included in the State Budget. Both State Budget and Regional Budget consist of revenues budget, expenditures budget, and financing. Revenues in the State Budget consist of tax revenues, non-tax revenues, and grants, while revenues in the Regional Budget consist of regional revenues, balancing fund, and financing.

All the revenues and expenditures of local governments, either in the form of money, goods, or services, are budgeted in gross value in the regional budget (Law No. 58 of 2005) . Revenues budgeted is an achievable and rationally measured estimation for every sources of revenues. Expenditure budget should be supported with a certain availability of sufficient revenues. The SKPD (local government work unit) is prohibited to spend on expenditure budget for purposes that are not budgeted or in case of insufficient budget.

The general policies of Regional Budget arranged by the mayor/regent is the basis for Regional Budget drafting. As the local election in Indonesia is direct, means the citizen choose their district head directly, it is possible for the district head to make use of regional budget to deliver programs that will increase their popularity, especially if they are running for reelection. Sjahrir et al. (2013) finds that PBCs occur only in direct elections, not in indirect ones, because voters need to be persuaded to vote for the incumbent only in direct elections.

2.2.   *Previous Research*

The literature on political budget cycles has given empirical evidence on the relationship between electoral cycle and politicians' behavior. Benito et al. (2015), Pina and Venes (2011), Cassidy, Kamlet, and Nagin (1989), Merola and Pérez (2013), Couture and Imbeau (2009), Veiga and Veiga (2007), and Lago-Peñas and Lago-Peñas (2008) find the relationship between electoral cycle and government behavior on revenue deviation. Meanwhile, the relationship between electoral cycle and expenditure deviation is proven by Vicente et al. (2013), Drazen and Eslava (2010), Serritzlew (2005), and Gennari and Messina (2014).

There are two different findings related to the relationship between electoral cycle and budget bias. On one side, some researchers such as Larkey and Smith (1989) find that the level of bias is generally not affected by the occurrence of elections. On the other hand, other researchers such as Bischoff and Gohout (2010) do not find the evidence that governments are expected to exaggerate tax revenues for election years.

Goeminne, Geys, and Smolders (2008) disclose that two party coalitions are slightly more optimistic than single party governments (though this effect is not statistically significant), while

coalitions with at least three parties are less optimistic. In line with Goeminne, et. al, Lago-Peñas and Lago-Peñas (2008) also find that upward deviations in deficits are higher in the case of single-party majority cabinets. In regard to expenditure deviation, Vicente et al. (2013) find that the higher the political strength, the greater the spending. This finding is in agreement with Serritzlew (2005), that should the mayor rely on a coalition, overspending tends to be slightly higher. However, Benito et al. (2015), Pina and Venes (2011), and (Bischoff & Gohout, 2010) find that ideology and fragmentation, in interaction with the electoral cycle, appear as not significant, which indicates that the electoral cycle is not affected by these two features.

In regard to political competition, Bischoff and Gohout (2006) find that the incumbent's popularity is found to have a strong influence. The upward bias in tax projections is higher the lower the incumbent party's popularity. In line with their findings, Esteller-Moré (2005) also finds that tax administration tends to be more inefficient in those electoral districts where the vote-turnout is higher, where the ratio (electoral roll/number of seats) is lower, and the margin to lose a parliamentary seat is also lower. Greater competition is associated with less conservative estimates in the original budget but more conservative changes during the budget period (Mayper, Granof, & Giroux, 1991).

There are several findings on political alignment relationship with budget deviation. Migueis (2013) finds evidence from Portuguese that aligned municipalities received approximately 19% more targetable transfers than non-aligned municipalities. Meanwhile, Berry, Burden, and Howell (2010) using data from the United States find that that districts and counties receive about 4–5% more outlays when they elect a member of Congress from the same party as the president. However, Benito et al. (2015) do not seem to find the effect of political alignment significant, which indicates that the alignment of municipalities with upper-tier governments does not have an impact on budget deviations.

There are two findings on population relationship with budget deviation. Benito et al. (2015), Vicente et al. (2013), and Lago-Peñas and Lago-Peñas (2008) find that population influences budget deviation. On the other hand, Goeminne et al. (2008) and Mayper et al. (1991) do not seem to find the relationship between those two variables.

Benito et al. (2015) find that higher income favors tax revenue overestimation. This finding is in line with Couture and Imbeau (2009), that the more economic conditions improved over a given year (the more GPP grows, the less inflation, and the better employment condition), the more revenue proved to have been underestimated. Bischoff and Gohout (2010) also find a similar result that the poorer the state's macro economic performance, the lower the incumbent's chance of reelection, and thus the stronger the incentives to exaggerate tax projections.

The unemployment rate is associated with higher expenditure and lower taxes (Vicente et al., 2013). This finding is in agreement with Bischoff and Gohout (2010), Benito et al. (2015), and Mayper et al. (1991) who find that high unemployment rated cities, initially underestimated expected expenditures, then changed toward overestimation.

In view of the aforementioned discussion of the literature, we try to find empirical evidence on the effect of political factors (electoral cycle, political coalition, political competition, and

political alignment) and socio-economic factors (population, IPC, and unemployment) towards budget deviation.

3. METHODOLOGY

The sample frame in this research is "*Daftar Akhir Masa Jabatan*" (the End of Term Lists) for the year 2013 and 2015 issued by Ministry of Home Affairs. A sample is a subset of the population (Sekaran & Bougie, 2013), which in this research are cities and regencies carrying out a regional election in 2013 and 2015.

We collect data from reliable sources. Data on actual and budgeted revenues and expenditures are from the Regional Financial Reports audited by the State Audit Board (*Badan Pemeriksa Keuangan*). Political data such as coalition in local government and legislative council seat we obtain from the General Election Comission (*Komisi Pemilihan Umum*), Ministry of Home Affairs, and datapolitik.org. Socio-economic related data are provided by the Bureau of Statistics (*Badan Pusat Statistik*) and *Bappenas*.

Based on literature review, we analyse the determinants of deviations in budget by using the following model:

$$\text{DEV\_T} = \alpha - \beta_1 T - \beta_2 T_{-1} - \beta_3 T_{-2} + \beta_4 \text{COAL} - \beta_5 \text{COMPET} + \beta_6 \text{NAT} + \beta_7 \text{LNPOP} + \beta_8 \text{IPC} + \beta_9 \text{UNEMP} + \varepsilon$$

Unlike previous researches done in budget deviation which separate revenue and expenditure deviation, we try to test the proposed factors on total deviation in budget. We choose this approach because it will show a more distinct direction on the relationship of the factors tested on budget deviation. We measure total deviation in budget by calculating the average of deviation in revenue and deviation in expenditure. As for the independent variables, we follow Vicente et al. (2013), Anessi-Pessina and Sicilia (2015), and Benito et al. (2015) using dummy on electoral cycles and political alignment.

Table 1: Operational Definition and Measurement

Variables	Definition	Measurement	Reference
DEV_T	Deviation in total budget	The average of revenue deviation and expenditure deviation where revenue and expenditure deviation is the percentage of the difference between budgeted and actual	Anessi-Pessina, E., & Sicilia, M. (2015)
T	Dummy election year	Takes value of 1 in election year; 0 otherwise	Serritzlew (2005), Veiga and Veiga (2007), Lago-Peñas and Lago-Peñas (2008), Couture and Imbeau (2009), Drazen and Eslava (2010), Vicente et al. (2013), Benito et al. (2015)
T_{-1}	Dummy pre-election year (1 year before election)	Takes value of 1 in a year before election year; 0 otherwise	
T_{-2}	Dummy pre-election year (2 years before election)	Takes value of 1 in two years before election year; 0 otherwise	
COAL	Political strength	The number of parties in the coalition supporting the district head	Serritzlew (2005), Lago-Peñas and Lago-Peñas (2008),(Goeminne et al., 2008), Vicente et al. (2013)
COMPET	Electoral competition in legislative council	The portion of seats in the legislative outside the coalition supporting the district head	Mayper et al. (1991), Esteller-Moré (2005), Bischoff and Gohout (2006)
NAT	Dummy national party effect - alignment with national constellation	Takes value of 1 if two or more coalition party and the 4 best national party are the same; 0 otherwise	Berry et al. (2010), Migueis (2013)
LnPOP	Natural logarithm of population in the district	Natural logarithm of population in the district	Lago-Peñas and Lago-Peñas (2008), Vicente et al. (2013), Gennari and Messina (2014), Benito et al. (2015)
IPC	Income per capita	Gross Regional Domestic Product per capita (using data from BPS)	Couture and Imbeau (2009), Bischoff and Gohout (2010), Benito et al. (2015)
UNEMP	Unemployment rate	The amount of unemployed citizen older than 15 years old during the year/The total number of workforce older than 15 years old	Mayper et al. (1991), Bischoff and Gohout (2010), Vicente et al. (2013), Benito et al. (2015)

Table 2: Descriptive Statistics and Spearman Correlation

	DEV_T	T	T-1	T-2	COAL	COMPET	NAT	LNPOP	IPC	UNEMP
MIN	-0.443	-	0.050	-	9.722	4.850	0.001	0	0	0
MAX	1.608	24.000	1.000	1.000	15.465	405.170	0.310	1	1	1
MEAN	-0.051	3.780	0.704	0.324	12.647	38.062	0.055	0.2674	0.2604	0.2484
STDEV	0.066	3.619	0.203	0.468	1.034	48.111	0.032	0.4428	0.439	0.4322
DEV_T	1.000									
T	-0.300	1.000								
	0.000^a									
T-1	0.088	-0.394	1.000							
	0.003^a	0.000^a								
T-2	0.047	-0.391	-0.369	1.000						
	0.110	0.000^a	0.000^a							
COAL	-0.030	-0.010	-.027	-0.029	1.000					
	0.302	0.726	0.353	0.327						
COMPET	0.001	0.033	0.026	0.025	-0.613	1.000				
	.0974	0.262	0.371	0.403	0.000^a					
NAT	-0.041	-0.065	0.007	0.009	0.559	-0.632	1.000			
	0.164	0.027^b	0.800	0.762	0.000^a	0.000^a				
LNPOP	0.162	-0.026	0.012	0.010	-0.006	-0.107	0.004	1.000		
	0.000^a	0.380	0.691	0.728	0.839	0.000^a	0.905			
IPC	-0.126	0.104	0.011	-0.093	0.093	-0.113	0.064	-0.088	1.000	
	0.000^a	0.000^a	0.720	0.002^a	0.002^a	0.000^a	0.028^b	0.003^a		
UNEMP	-0.034	0.005	0.069	-0.033	0.013	-0.034	0.064	0.199	0.240	1.000
	0.250	0.874	0.019^b	0.266	0.646	0.251	0.030^b	0.000^a	0.000^a	

Notes: DEV_T: total deviation, T: election year, T-1: election year-1, T-2: election year-2, COAL: political coalition, COMPET: political competition, NAT: political alignment, LNPOP: LN of population, IPC: income per capita, UNEMP: unemployment rate, [a] Significant at 1%; [b] signifficant at 5%, [c] significant at 10

4. FINDINGS

We first analyse both fix effect and random effect then run the Hausman test to decide which model will be used. The Hausman test of both dependent variables model gives the value 0 for Prob>chi2. Since the null hypothesis is rejected, the RE Model is not appropriate because the probability that the RE are correlated with one or more regressors (Gujarati & Porter, 2009). Thus, the FE Model will be used to analyze the budget deviation.

Using FE Model, the regression shows significance on three variables representing the electoral cycle. Considering the negative coefficient on each variable, electoral cycle and budget deviation show a reversed relationship. From the coefficient value, as shown in Figure 2, the deviation effect is the greatest at election year and the lowest at a year before the election.

Table 3: Fixed and Random Effect Testing

Independent Variables	Fixed Effect			Random Effect	
	Expected Sign	Coef.	Sig.	Coef.	Sig.
T	-	-0.038	**0.000ᵃ**	-0,040	**0.000ᵃ**
T_{-1}	-	-0.015	**0.002ᵃ**	-0,014	**0.000ᵃ**
T_{-2}	-	-0.021	**0.000ᵃ**	-0,019	**0.000ᵃ**
COAL	+	0.004	0.851	0,000	0.701
COMPET	-	0.022	0.450	-0,002	0.836
NAT	+	0.001	0.917	-0,006	0.183
LnPOP	+	-0.139	0.166	0,005	**0.007ᵃ**
IPC	+	0.000	0.848	0,000	**0.002ᵃ**
UNEMP	+	0.087	0.223	-0,035	0.478
Constant		1.709	0.180	-0,081	0.002
F-value			19.700		183.020
Sig			0.000		0.000
R-within			0.181		0.173
R between			0.041		0.064
R-all			0.010		0.108
Hausman Test					
Chi2		110.21			
Prob>Chi2			0.000		

Notes: T: election year, T-1: election year-1, T-2: election year-2, COAL: political coalition, COMPET: political competition, NAT: political alignment, LNPOP: LN of population, IPC: income per capita, UNEMP: unemployment rate, [a] Significant at 1%; [b] signifficant at 5%, [c] significant at 10%

Figure 2: Electoral Cycle Effect on Budget Deviation
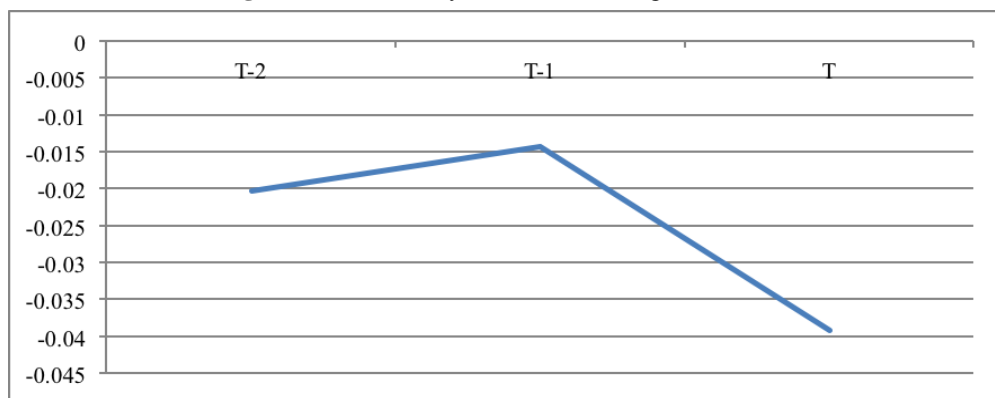
The result on regression shows that electoral cycle does have an effect on the budget deviation. As what Alesina and Perotti (1996) explain about politicians' behavior, they typically do not have the incentive to act transparently. However, the district head has the incentive to "look good" as the election coming, moreover if they are running for reelection. There are two ways to gain popularity. First, they can pamper their voters by collecting less tax and spending more. Second, they can be more strict in order to look "clean". What happens in this research is likely the second, where district heads tend to stick more to the budget the closer the election coming. This is in line with the findings of Cassidy et al. (1989), Serritzlew (2005), Lago-Peñas and Lago-Peñas (2008), Veiga and Veiga (2007), Couture and Imbeau (2009), Drazen and Eslava (2010), Pina and Venes (2011), Merola and Pérez (2013), and Benito et al. (2015).

Other political factors do not indicate relationships with budget deviation. In regard to the political coalition and political competition, the finding of this research is in agreement with Bischoff and Gohout (2010), Pina and Venes (2011), and Benito et al. (2015). The argument that can be proposed is that once a district head is appointed, they are no longer "tied" to their supporter. They now have their own interest to fulfill. Another point to take is that Indonesia is a multiparty government, where coalitions are not permanent. After elections, it is possible for those parties to leave the coalition and enter a new coalition, even with their opposition during the election.

On political alignment, the finding in this research is in line with Benito et al. (2015) who find that the alignment of municipalities with upper-tier governments does not have an impact on the budget deviations. The logic behind this relationship is that on the years this research is conducted, the old President is already in his second period, so he does not have the interest in maintaining his supports. On the other hand, the new elected President is still in his early years, where he needs to be cautious to not show favoritism to maintain his image.

Population does not show any relationship with budget deviation either. This finding supports Goeminne et al. (2008) and Mayper et al. (1991) who find that there is not any relation between population size and budget deviation. More population means more revenue, but also more expenditure. Since both deviations are likely negating each other on an extent, the average deviation does not show significance.

The relationship between IPC and budget deviation is also not proven. The regression results fail to support the finding of Benito et al. (2015) who find that higher income favors tax revenue overestimation, and also Couture and Imbeau (2009) and Bischoff and Gohout (2010) who find that better economic conditions favor revenue underestimation. This insignificant relationship is likely because of most of the cities/regencies are still depends on transfer funds from the government. Figure 4.2 shows data from Ministry of Home Affairs, that during 2010-2015, transfer funds occupy more than 60% of cities/regencies' revenues. In conclusion, it is not peculiar that IPC does not have an effect on the budget deviation since in most regions, the amount is smaller than the transfer funds.

The finding on unemployment rate also does not meet the agreement with Bischoff and Gohout (2010) who find the positive relation between unemployment and revenue deviation, regarding expenditure deviation, or Vicente et al. (2013) and Benito et al. (2015) who find that unemployment rate is associated with higher expenditure. This result is probably because the expenses related to the basic needs of unemployed citizens is mostly handled by the central government. This matter is regulated by Law Number 40 of 2004 on the national social security system, which stated that social security is a social protection to ensure every citizen to be able to fulfill their basic needs appropriately. Since that law mention "every citizen", unemployed citizens meet the criteria as the subject protected by that law.

5. ADDITIONAL FINDINGS

Because this research only finds the evidence of electoral cycle as the factor behind budget deviation in Indonesian local government and fail to prove that other factor tested are significant, robustness test is then exercised. First, the test is separated between revenue deviation and expenditure deviation. Second, the test is separated between cities and regencies. The separated tests show a better result on the relationship of the variables tested.

The first robustness test separates revenue deviation and expenditure deviation. Electoral cycle, population, and IPC are proven to have an influence on revenue deviation. Meanwhile, on expenditure deviation, electoral cycle, political alignment, population, and IPC are proven to affect expenditure deviation. On the second robustness test, the regression for cities and regencies is separated. The regression in city regions shows that only electoral cycle affects the total deviation. On regency regions, electoral cycle and population affect the total deviation.

Based on the additional regression result, the only factor that shows consistency in having an influence on deviation is the electoral cycle. Since other factors, such as population, IPC, and political alignment seem to have influence in robustness tests, this research is still open to development. It is possible that if the data is bigger, where the years' count is longer and including post election years, other factors tested on this research may show better significance.

CONCLUSIONS

This research aims to find the political and socio-economic factors affecting budget deviations. By analyzing 1172 unbalanced panel data of 393 cities and regencies from 2010-2015, the regression result shows empirical evidence on factors inducing budget deviations in local governments. From seven factors proposed in hypotheses, only electoral cycle affecting budget deviation in general. The political coalition, political competition, political alignment, population, IPC, and unemployment rate do not affect budget deviation. However, from the separated test on revenue and expenditure deviation, it is proven that three factors affect both revenue and expenditure deviation, they are the electoral cycle, population, and income per capita, while political alignment and unemployment rate only shows an effect on expenditure deviation. From the separated test on cities and regencies, it is found that only electoral cycle affects budget deviation in city regions, while in regency regions, electoral cycle and population seem to affect budget deviation.

The result of this research will be benefiting especially to the regional budgeting team (TAPD) and the internal auditors of local governments. The regional budgeting team and the local inspectorates can make use of the indicators found in this research to prevent intentional budget deviations. In order to minimize intentional budget deviation, during the budget formulation and implementation, the regional budgeting team and the local inspectorates need to pay more attention to the electoral cycle, mostly when the election year is near.

Table 4: Robustness Test 1

Independent Variables	Expected Sign	Revenue deviation		Expenditure Deviation		Average Deviation	
		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
T	-	-0.046	**0.000ª**	-0.030	**0.000ª**	-0.038	**0.000ª**
T-1	-	-0.015	**0.052ᶜ**	-0.014	**0.002ª**	-0.015	**0.002ª**
T-2	-	-0.031	**0.000ª**	-0.011	**0.006ᵇ**	-0.021	**0.000ª**
COAL	+	0.012	0.731	-0.004	0.867	0.004	0.851
COMPET	-	0.020	0.659	0.024	0.403	0.022	0.450
NAT	+	0.019	0.221	-0.017	**0.081ᵇ**	0.001	0.917
LnPOP	+	-0.683	**0.000ª**	0.404	**0.000ª**	-0.139	0.166
IPC	+	0.001	**0.085ᶜ**	-0.001	**0.018ᵇ**	0.000	0.848
UNEMP	+	0.069	0.537	0.105	0.135	0.087	0.223
Constant		8.650	0.000	-5.233	0.000	1.709	0.180
F-value			22.840		6.700		19.700
Sig			0.000		0.000		0.000
R-within			0.204		0.070		0.181
R between			0.017		0.020		0.041
R-all			0.007		0.011		0.010

Notes: T: election year, T-1: election year-1, T-2: election year-2, COAL: political coalition, COMPET: political competition, NAT: political alignment, LNPOP: LN of population, IPC: income per capita, UNEMP: unemployment rate, ª Significant at 1%; ᵇ signifficant at 5%, ᶜ significant at 10%

Table 5*: Robustness Test 2

Independent Variables	Expected Sign	Cities (*Kota*)		Regencies (*Kabupaten*)		Average Deviation	
		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
T	-	-0.044	**0.000**[a]	-0.034	**0.000**[a]	-0.038	**0.000**[a]
T-1	-	-0.006	0.569	-0.014	**0.005**[b]	-0.015	**0.002**[a]
T-2	-	-0.022	**0.038**[b]	-0.018	**0.000**[a]	-0.021	**0.000**[a]
COAL	+	0.002	0.319	0.009	0.669	0.004	0.851
COMPET	-	0.037	0.285	0.016	0.595	0.022	0.450
NAT	+	0.005	0.666	-0.005	0.608	0.001	0.917
LnPOP	+	-0.002	0.714	-0.225	**0.053**[c]	-0.139	0.166
IPC	+	-0.000	0.226	0.000	0.361	0.000	0.848
UNEMP	+	-0.108	0.451	0.063	0.411	0.087	0.223
Constant		-0.033	0.628	2.790	0.058	1.709	0.180
F-value/Wald chi^2			28.230		17.050		19.700
Sig			0.001		0.000		0.000
R-within			0.171		0.190		0.181
R between			0.031		0.069		0.041
R-all			0.094		0.027		0.010

Notes: T: election year, T-1: election year-1, T-2: election year-2, COAL: political coalition, COMPET: political competition, NAT: political alignment, LNPOP: LN of population, IPC: income per capita, UNEMP: unemployment rate, [a] Significant at 1%; [b] signifficant at 5%, [c] significant at 10%

6. LIMITATIONS AND FUTURE STUDIES

Because of the limited data, the post-election years and incumbency are not included in this research. The reason is mainly that the post-election year data related to financial reports for the election year 2015 is not available yet. Since the data of 2015 post election year can not be used, in order to be consistent, the data of 2013 post election year is not used either. Learning from the limitations of this research, future studies should consider including the post-election years and incumbency effect when the data is available, in order to get a better result in capturing the intention of mayors/regents who are running for reelection.

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