



Factors Affecting Rebudgeting in Local Government: From Organizational Feature to Political Variables

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ABSTRACT

This study aims to examine the determining factors of rebudgeting in Indonesia local government. Incrementalism degree, political variables, organizational feature, local government financial condition, and local socioeconomic environment are tested as the factor for Indonesia local government rebudgeting for period of 2010-2014. Using panel regression approach, the findings show that internal factors as well as external factor do affect rebudgeting in various ways. Degree of incrementalism has negative effect; political variable has positive effect during election years, but has negative effect according to regent/mayor gender; organizational feature and local government financial condition have negative effect for current surplus. Meanwhile, financial autonomy and net borrowing has positive effect for accumulated surplus; and lastly, local socioeconomic environment has negative effect on rebudgeting.

JEL Classification: H11; H72; D73; P16

Keywords: Rebudgeting; Degree of Incrementalism; Organizational Feature; Local Government Financial Condition; Local Socioeconomic Environment

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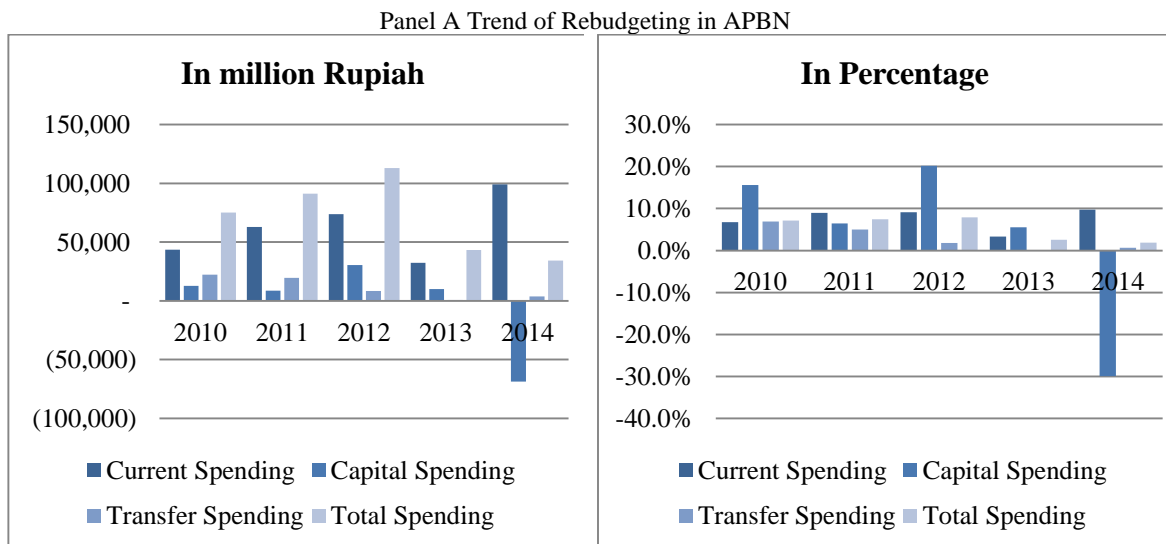
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INTRODUCTION

Annual Budget is an important planning tool for public sector or government-based organizations. This budget is guidance for targeted economy growth plan and policy formulation as previously stated in the government visions and missions (Forrester and Adams, 1997; Mardiasmo, 2002). However, as the economy ecosystem becomes more uncertain, the budget is less predictable. Those uncertainties could arise from many factors such as an annual perspective, problems in forecasting, centralization and bureaucratic controls, size and complexity, and erosion of accountability (Caiden, 1981; Mardiasmo, 2002). One of the major sources of those uncertainties is revenue forecast (Cornia et al., 2004). The shocks from revenue forecast force local government to do rebudgeting. Intriguingly, that rebudgeting process is closely associated with non-market factors such as incrementalism degree, political variables, organizational feature, local government financial condition) and local socioeconomic environment (Anessi-Pessina et al., 2013). In a more decentralistic system, the process may have more red-tape process due to the conflict of interest between federal politicians and local politicians, the legislature issue, and the differences in tastes for public spending from federal targets (Besley and Coate, 2003), especially, if that system is adopted in developing countries with less governance, bad monitoring system, and open opposition like Indonesia.

Indonesia adapted decentralistic government system, hence, the budget system accommodates two rebudgeting process, which are: (1) state budget (*Anggaran Pendapatan dan Belanja Negara*, henceforth APBN), and (2) local government budget (*Anggaran Pendapatan dan Belanja Daerah*, henceforth APBD). As shown in Figure 1, APBN and APBD portray rebudgeting trends over the period 2010-2014. APBN rebudgeting trend tends to increase from 2010-2012, then decrease for the next two years. This trend appears for all specifications (current spending, capital spending, transfer spending, and total spending). Meanwhile, APBN rebudgeting on transfer spending has been decreased from 2010-2014. In the other hand, the local government rebudgeting - APBD rebudgeting - show increasing trends from 2010-2011, decreasing for 2012, then increasing from 2013-2014. This trend appears for all specifications in rupiah and also for current spending rebudgeting in percentage. Other specifications in percentage have different pattern: rebudgeting on capital spending has decrease-increase-decrease pattern, transfer spending has decrease-then-increase pattern, and total spending has increase-decrease pattern.



Panel B Trend of Rebudgeting in APBD

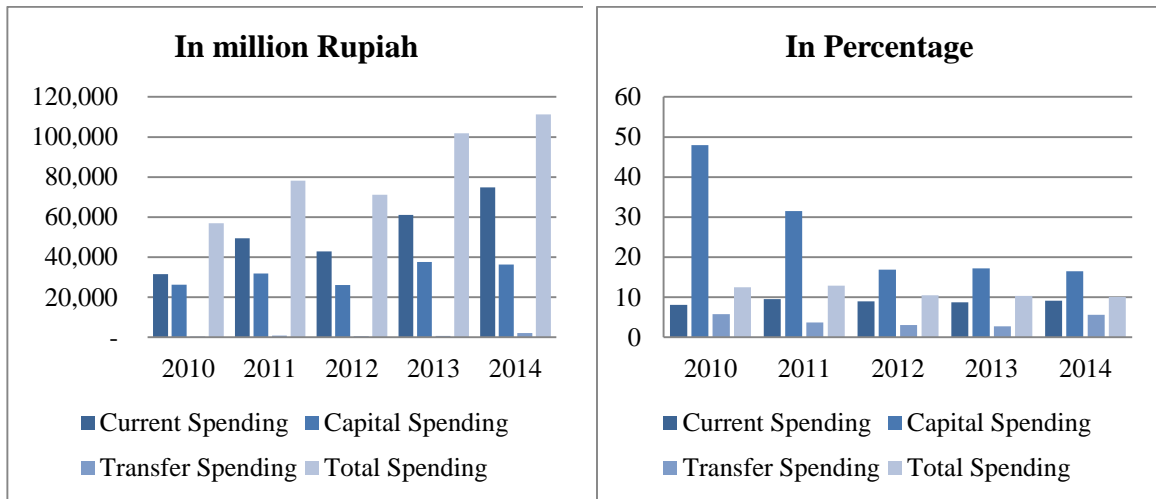


Figure 1 Trend of Rebudgeting in APBN and APBD

Indonesia offers unique research setting for this public sector finance issue in three ways. First, even though Indonesia is not a federal-state country (e.g., US or Malaysia), it allows the local government to have full authority in budgeting process. The central government (more known as federal in US or Malaysia) gives rights, authorities and obligations for the autonomous regions to regulate and manage their own governmental affairs. Even though so, the interests and public financing of local communities have to be tally and have to follow the legislations and acts made by both central government and local government. This system gives the delegation of authority by the central government to the central government's fittings located in the area to hold certain affairs with a power deconcentration, which is rarely found in other countries. Second, local government budget has to be audited annually by the auditors from central government. Even though local government has rights and authorities in managing their budget, central government may intervene the process through the domestic/home affair ministry based on the auditor's report. Third, Indonesia has interesting institutional setting where there are lot conflict of interests among the stakeholders of the local government. This causes the huge gap between one local government and other local governments. For example, several local governments in Indonesia are led by family-based politicians, have big size of organization with limited source of income, have enormous income sources, or have established public infrastructure compared to other local governments. This may lead to different rationale for rebudgeting of one local government to another local government.

Those unique characteristics from Indonesia may give new insight for this area of research considering most of rebudgeting research findings were conducted within developed countries countries such as USA (Forrester and Mullins, 1992; Forrester, 1993; Dougherty et al., 2003) and Italia (Anessi-Pessina et al., 2013; Annesi-Pessina and Sicilia, 2015; Sedmihradska and Hruza, 2014). This study is different from previous studies in several ways. First, most studies have investigated the magnitude of rebudgeting in the sense of exploratory perspective (i.e. Dougherty et al., 2003; Forrester and Mullins 1992), this study is go beyond exploratory perspective but includes the explanatory of rebudgeting as the continuous process of budget execution and revisions. Therefore, this study investigates the explanatory variables that have been identified as relevant by the literature on public sector finance. Second, this study offers more interesting background in regards of political factors. For instance, the rebudgeting in a local government may have a sudden incremental due to corruption. There were several case where incremental expenditure was followed by the arrested of governors/ heads of local government. In fact, several local governments had more than four times of arrested governors leading to disruption in budgeting process.

In sum, this research aims to test some hypothesis on the potential factors which might affect rebudgeting practices in local government. We follow research conducted by Anessi-Pessina et al., (2012) to test that hypothesis about the effect of internal and external factors on rebudgeting. The rest of this paper is structured as follows. First, we reviews the relevant literature and develop the hypothesis. Second, we discuss the background on Indonesian local government and their budgeting rules. Third, we present the specifics data and methods, followed by an explanation of the finding. Lastly, we conclude the findings of the study.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Schick (2015) and Miller (2018) defines budgeting as a process for systematically relating the expenditure to the accomplishment of planned objectives. This process determines how the organization collects the resources and allocates them in accordance to the organization's goals. Generally, budget system has three functions, which are: planning function, management of ongoing activities, and spending control (Schick, 2015; Miller, 2018). From the view of budget process, it includes some steps from preparation, collection, submission, execution, to audit and evaluation (Lu and Facer, 2004). Planning is linked most closely to budget preparation and formulation, management process is spread out over the entire budget cycle, and control is dominant during budget execution. However, over the entire budget process, all processes are rarely given equal attention; budget execution often received less attention compared to the budget formulation process (Anessi-Pessina et al., 2012; Schick, 2015).

One step of budget execution is rebudgeting. Dougherty et al., (2003) explain that during budget execution, administrators are given some flexibilities to ensure whether they consistently comply the efficiency and effectivity rules or not. Those flexibilities are visible through a process called rebudgeting. Another important role of rebudgeting is to allocate unexpected revenues or to cut the expenditure due to certain circumstances or shocks (Cornia et al., 2004).

Alesani (2012) defines rebudgeting as a process in which a management orientation toward planning and emergency response is displayed. Further, he also characterized rebudgeting as power struggle between elected representatives and managers. This power struggle is often informal and elusive. Meanwhile, Anessi-Pessina et al., (2013) defines rebudgeting as a way used by government to meet the objectives of budgeting, including flexibility and predictability. Annessi-Pessina and Sicilia (2015) argue that the rebudgeting process in Italy is less transparent compare to the initial process of local government budgeting process.

This local government rebudgeting topic has been extensively conducted within developed countries context. For instance, Forrester and Mullins (1992) conducted a research in 91 U.S. central cities in 1990 and found that rebudgeting tend to be less visible compared with the budget itself and primarily generated by technical problems, not political concerns. They also stated that the municipalities government used rebudgeting to adjust the program and to accomplish management's needs in a changing environment. Forrester (1993) examined rebudgeting in Missouri U.S., and its finding indicated that rebudgeting at the state level is done primarily for managerial and environmental reasons. Dougherty et al. (2003) used data from cities in West Virginia U.S. in 1997 and found that budget adjustment during the fiscal year followed an 'increase then decrease' pattern. This research also explained that budget adjustment resulted from a need to balance the budget in facing uncertainty of revenue forecast. Anessi-Pessina et al. (2013) investigated municipalities in Italia and found out that the main reason of doing rebudgeting correlated with the policy decided by the higher level government. This study also stated that rebudgeting is perceived as a favourable contribution to the municipality's planning and control system. Further, Annessi-Pessina et al. (2016) argue for more research on the public budgeting such as rebudgeting process, especially engage it with political context.

The effect of degree of incrementalism on the formulation of initial budgeting on rebudgeting

Incrementalism is defined as adherence to the budgetary norms (Boyne et al., 2000; Anessi-Pessina et al., 2016). Theoretically, the description of budgetary outputs, description of budgetary processes, and the impact of processes on outputs are the common approach to identify incrementalism. Our hypothesis follows Alesani (2012) and Annessi-Pessina et al. (2016) who argue that it is common for budgeting to be incremental. The more incremental the budgeting process, the more the rebudgeting process is done to face organization's emerging needs and initiatives. Here, we use budget deviation to capture the degree of incrementalism. The less budget deviations present, the more incremental the budgeting process, the more rebudgeting process needed. Therefore, we hypothesize:

Hypothesis 1: Negatively budget deviation affects rebudgeting

The effect of political variables on rebudgeting

Shi and Svensson (2006) argue that budget process is affected by political cycle. Sjahrir et al. (2013), and Setiawan and Rizkia (2017) support it by showing that political budget cycles do present in Indonesian local

government, especially when direct election applied. Chortareas et al. (2016) show the presence of political budget cycle in Greece as an increasing investment spending, total spending, and debt revenue; which is perceived as an favourable for the incumbent when he run for reelection again. Management has also been done rebudgeting because of political priority change (Anessi-Pessina et. al., 2013). Therefore, this research hypothesizes:

Hypothesis 2a: election year positively affects rebudgeting

Norris (2000) and Funk and Phillips (2019) explained the concept of gender-gap which has been used to cover a diverse range of political phenomenon at mass and elite levels. Gilens (1988) stated that there is gender difference in policy preference. Men tend to support increasing defense and military spending, while women prefer an increase in government service, employment, and health spending for people. Meanwhile, Funk and Phillips (2019) found that women mayors spent more budget on traditionally women issues such as education equality, health care, social assistance rather than budgeted for transportation and urban development. Hence, we hypothesize:

Hypothesis 2b: regent/mayor's gender positively affects rebudgeting.

The effect of organizational features on rebudgeting

According to Anessi-Pessina et al. (2012), big organization tends to be more complex and less organized because of its wide scale and variety of its activities. As a consequence, it needs more rules and procedures which in turn make it slower to reach the consensus required to revise the budget. The big and complex government organizations also face the same problems; they tend to need to revise the budget but the rules and procedures hampered them. Therefore, we hypothesize:

Hypothesis 3: personnel expenditures negatively affect rebudgeting.

The effect of local government financial condition on rebudgeting

Dougherty et al. (2003) concludes that the surpluses accumulated to the next year's budget affect rebudgeting in current spending as well as capital spending. The biggest rebudgeting amount comes from current spending, while the biggest rebudgeting percentage comes from capital spending. Those surpluses resulted in more fiscal space in the formulation of initial budget. Fiscal space could be generated from two types of surplus: one type of surplus is implicitly written into revenue estimates, the other type is not evident until the end of the fiscal year. First type is classified as current surplus, the latter is classified as accumulated surplus. The larger fiscal space gives budget administrator more flexibilities which caused smaller rebudgeting possibilities. Hence, this study hypothesizes

Hypothesis 4a: accumulated surplus negatively affect rebudgeting;

Hypothesis 4b: current surplus negatively affect rebudgeting;

Higher degree of financial autonomy defined by the more local own-source revenue scaled to total revenue. Total revenue could be sourced from local own-source revenue, transfer revenue, and other lawful local revenue resources. Higher revenue, in this case is local own-source revenue from tax and fees charged for service provided, would give the government sufficient revenue to fund their expenditures. Higher local own-source revenue would support the local government to formulate initial budget with higher degree of certainty, which in turn would decrease mid-year adjustment.

Hypothesis 4c: financial autonomy negatively affect rebudgeting;

Additionally, less nondiscretionary spending might also generate larger fiscal space. (Heller, 2005; Azzimonti et al, 2016). Nondiscretionary spending characterized with higher degree of rigidity, such as personnel expenditures, interest expenditures, and debt repayment expenditures. Lesser nondiscretionary spending generates larger fiscal space, gives budget administrator more flexibilities which caused smaller rebudgeting possibilities. Hence,

Hypothesis 4d: expenditure rigidity negatively affect rebudgeting;

Local governments also rely on other source of revenue: local government borrowing. Anessi-Pessina and Sicilia (2015) found that the more net borrowing made, the more flexibilities present; it gives the budget administrator more spaces which caused smaller rebudgeting possibilities. Therefore, we hypothesize:

Hypothesis 4e: net borrowing negatively affect rebudgeting.

The effect of local socioeconomic environment on rebudgeting

Bingham (1978) conducted a study about public policy in municipalities in U.S. and found that socioeconomic characteristics could impact policy decided by the government. The characteristics defined by geographical location, race, and size of municipalities. Lu and Facer (2004) examined several factors affecting budget change, classified as internal and external factors. Internal factors include number of employees, number of budget analysts, form of government, and the fiscal health of the government; external factors include technological conditions, legal conditions, demographic conditions, ecological conditions, and cultural conditions.

In this study, local socioeconomic environment defined by regional GDP and geographical location (Java region/non-Java region). Regional GDP describes economic condition of local government, which might affect rebudgeting. Regional GDP has been used as economic indicator to determine the rate of economic development. Local government with higher regional GDP tends to have better infrastructure and human resources, as well as better quality of planning and budget formulation; which in turn might decrease mid-year adjustment.

Hypothesis 5a: net GDP affect rebudgeting negatively;

Geographical location difference affected infrastructure condition. Here, we use proxy Java region and non-Java region. According to the data of Statistics Indonesia (Badan Pusat Statistik, BPS), regional GDP of 2014-2016 period in Java region averaged Rp279,194 million; while regional GDP in non-Java region averaged Rp43,131 million. Further, Human Development Index of 2010-2015 for Java region and non-Java region averaged 70.96 and 66.31 respectively. Hence, we assume that local governments in Java region tend to have better infrastructure and human resources, as well as better quality of planning and budget formulation. Those geographical gap would bring differences in rebudgeting.

Hypothesis 5b: geographical location affect rebudgeting positively;

BUDGETING AND REBUDGETING IN INDONESIAN LOCAL GOVERNMENT

Indonesia has some levels of government: the central government, 34 provinces—including two special regions and a special capital city region—, approximately 510 regencies and cities (henceforth local government), 7.094 subdistricts, and 82.445 villages¹. Each local government has a regent/mayor and a region/city council representing the executive and legislative power in local authorities. Those the regents/mayors and the region/city councilors are elected directly by the people in every five years.

Indonesia local governments have some sources of revenues, which are: (a) local own-source revenue (*Pendapatan Asli Daerah*, henceforth PAD), (b) transfer revenue, and (c) other lawful local revenue. PAD includes local taxes and fees charged for service provided. Transfer revenue could be sourced from central government as well as from provincial level. It also can be in the form of special grant. Between 2010 and 2014, PAD of local governments in Indonesia averaged only 8.35 percent of their total revenues.

Indonesia started adopting performance-based budgeting since 2003 as enacted in National Acts No. 17/2003 about National Finance (Undang-undang Keuangan Negara). This law urges government organizations to formulate the budget consistent with the planned program. As for local government, they need to comply with another enactment² leading to more red-tape process. However, though the law has ruled everything about

¹ According to the Minister of Home Affairs Regulation namely: Peraturan Menteri Dalam Negeri No. 56/2015).

² For instance is Minister of Home Affairs Regulation namely: Peraturan Menteri Dalam Negeri No. 21/2011

performance-based budgeting, one still can view an emphasis on a great level of detail on an input basis in the budget document (Blondal et al., 2009).

As for formulation process of APBD³, each local government work unit is required to prepare its budget and work plans before it is drafted for higher level in regent/mayor and city council. The budget from each unit will be compiled and checked in regent/mayor office, then used as draft. Note that this draft has to be transformed as a regulation. Regent/mayor submit draft of APBD to city council to get approval. That approved draft is enacted to be regulation on APBD. In short, that APBD will be a single regulation made and approved by both executive and legislative of local government. Therefore, the rebudgeting process may take political and non-market factors to be done.

Interestingly, the decentralistic policy in Indonesia allows each local government to have different rebudgeting regulation and rebudgeting draft from other local governments. Yet, the classification of rebudgeting includes funds transferred between expenditure object detail, funds transferred between expenditure object, also rebudgeting arose from laws and regulations as well as central government strategic policy.

RESEARCH METHODS AND DATA

To test the hypotheses presented earlier, we employed a panel data set of 485 local government in Indonesia over the period of 2010-2014. Final sample consists of 1,680 local government-year observations due to missing or unobserved data.

The budget-related data sets, consist of initial budget and year-end statement from audited financial statement, are collected from various sources. The initial budget for each local government was downloaded from the Directorate General of Fiscal Balance's web site, while the audited financial statement was published every year by Supreme Audit Agency (Badan Pemeriksa Keuangan). This study analyzed rebudgeting separately for operational spending, capital spending, transfer spending, and total spending except for unforeseen spending. Unforeseen spending was disregarded because its rebudgeting depends on external circumstances such as natural and social disaster. For each of the rebudgeting titles, the dependent variable was defined as the percentage change between the year-end statement (revised) and the initial budget. The measurement of rebudgeting refers to Anessi-Pessina et al. (2012).

The independent variables were classified as internal and external factors. Internal factor consists of degree of incrementalism, politics variable, organizational feature, and local government fiscal condition; while external factor consists of local socioeconomic environment. The degree of incrementalism in the formulation of initial budget was measured by the budget deviation, defined as the initial budget scaled by the previous year's actual expenditures (Anessi-Pessina et al., 2012).

For political variable, the election cycle was measured by one year before regent/mayor election year, election year, and one year after election year (Anessi-Pessina et al., 2012; ; Setiawan dan Rizkia, 2017; Sjahrir et al., 2013). Those three variables are operationalized through a set of dummy variables. To capture the effect of regent/mayor's gender, we introduced the gender variable, which also operationalized through dummy variable.

For organizational feature, this study used personnel expenditures to capture organization's size and complexity. This variable defined as actual personnel expenditures scaled by actual total expenditures (Anessi-Pessina et al., 2012).

For local government financial condition, this study used five variables. Accumulated surplus is operationalized through accumulated surplus (or deficit) from previous year to the actual current revenues (Anessi-Pessina et al., 2012). Current surplus is defined as difference between revised budget of total revenues and revised budget of total expenditures to the revised budget of total revenues. Financial autonomy is measured by sum of actual tax revenues and actual fees charged for service provided revenue to the actual revenues. Expenditure rigidity is defined as sum of actual personnel expenditures and actual interest expenditures to the actual total revenues. Last variable in this category is net borrowing, measured by the revised budget of debt repayment scaled by revised budget of PAD.

³ The local government budget

For local socioeconomic environment, this study used regional gross domestic product and geographical location. Regional gross domestic product is operationalized through log of regional GDP and used database from BPS. Geographical location was defined as dummy variable for the location of local government—Java region or non-Java region. This study takes into account one control variable: a dummy variable of president’s election year.

Therefore, the research model for the study is

$$ER = \alpha + \beta_1BD + \beta_2EY + \beta_3MG + \beta_4PE + \beta_5AS + \beta_6CS + \beta_7FA + \beta_8ER + \beta_9NB + \beta_{10}NB + \beta_{11}RG + \beta_{12}PY + \varepsilon$$

ER = rebudgeting, there are 4 four measurement for rebudgeting. The first one is TTR (total expenditure rebudgeting), and divide into CRR = current expenditure rebudgeting, CPR = capital expenditure rebudgeting and TRR = transfer expenditure rebudgeting; BD = budget deviation; PE = personnel expenditure; AS = accumulated surplus; CS = current surplus; FA = financial autonomy; ER = expenditure rigidity; NB = net borrowing; RG = regional GDP; EY = election year; EY-1 = one year before election year; EY+1 = one year after election year; MG = regent/mayor’s gender; PY = presidential election year

The data presented earlier were analyzed using fixed-effects model. This model were chosen over Pooled Least Square Method on the basis of the Chow test. Further test to determine the model used in this hypothesis testing had been done on the basis of Hausman test, which encompass fixed-effects model over random-effects model. For all types of spending, this test confirmed the presence of multicollinearity. The Variance Inflation Factor (ViF) has the mean less than five implying there is no multicollienarity issue (Law, 2019). The issue was consequently solved by dropping geographical location variable from all specifications.

ANALYSIS

Descriptive Statistics

Table 1 panel A and B provide descriptive statistics of variables. The average of current spending, capital spending, transfer spending, and total spending are 0.088, 0.251, 0.040, and 0.110, respectively. This data shows that the biggest revised expenditure is capital spending. Mean for budget deviation is 0.154. Mean for personnel expenditure is 0.519. Mean for local government financial condition: accumulated surplus, current surplus, financial autonomy, expenditure rigidity, and net borrowing are 0.044, -0.094, 0.047, 0.504, ad 0.095, respectively. The data shows that the percentage of PAD⁴ collected by local government covers 4.7% of total revenues. Besides, the amount used for repaying the debt equals to 9.5% of total PAD. Table 1 panel B also shows that most of the regents/mayors are men, and most of local government located in outside Java region.

Table 1 below provides information regarding descriptive statistics of this study.

	Mean	Maximum	Minimum	Std. Dev.	Obs.
<u>Dependent variables</u>					
CRR	0.088	0.625	-0.409	0.077	1686
CPR	0.251	2.189	-0.494	0.322	1686
TRR	0.040	2.932	-0.974	0.217	1686
TTR	0.110	0.664	-0.724	0.091	1686
<u>Independent variables</u>					
BD	0.154	1.232	-0.350	0.145	1686
PE	0.519	0.798	0.111	0.111	1686
AS	0.044	0.043	-0.381	0.087	1686
CS	-0.094	0.729	-1.342	0.104	1686
FA	0.047	0.711	0.000	0.063	1686
ER	0.504	0.792	0.116	0.109	1686
NB	0.095	2.640	0.000	0.294	1686
RG	3.938	5.562	2.049	0.498	1686

Note: CRR = current expenditure rebudgeting; CPR = capital expenditure rebudgeting; TRR = transfer expenditure rebudgeting; TTR = total expenditure rebudgeting; BD = budget deviation; PE = personnel expenditure; AS = accumulated surplus; CS = current surplus; FA = financial autonomy; ER = expenditure rigidity; NB = net borrowing; RG = regional GDP.

⁴ As stated in earlier section above, PAD is local government revenue

	Mean	Std. Dev.	Obs.
EY	0.186	0.389	1686
EY-1	0.073	0.261	1686
EY+1	0.212	0.409	1686
MG	0.959	0.198	1686
GL	0.716	0.450	1686
PY	0.249	0.432	1686

Note: EY = election year; EY-1 = one year before election year; EY+1 = one year after election year; MG = regent/mayor's gender; GL = geographical location; PY = presidential election year

Table 2 provides the trend of rebudgeting from 2010 to 2014. From the data shown, rebudgeting is generally used to increase spending appropriations. The average increase for current spending, capital spending, transfer spending, and total spending is 92.37%, 88.17%, 54.84%, and 94.24%, respectively. For downward rebudgeting, the average for current spending, capital spending, transfer spending, and total spending is 7.37%, 11.31%, 20.13%, and 5.30%. Thus, the rest do have the same amount between initial budget and revised budget, which is 0.26%, 0.52%, 25.03%, and 0.47% for current spending, capital spending, transfer spending, and total spending, respectively.

	CRR	CPR	TRR	TTR
Downward revision	7,37%	11,31%	20,13%	5,30%
Upward revision	92,37%	88,17%	54,84%	94,24%
Constant	0,26%	0,52%	25,03%	0,47%

Note: CRR = current expenditure rebudgeting; CPR = capital expenditure rebudgeting; TRR = transfer expenditure rebudgeting; TTR = total expenditure rebudgeting

Table 3 provides information regarding correlation between variables. In table 3, it is exhibited that the local government financial condition variables do not have significant correlation with election cycle year, except for expenditure rigidity. The correlation between budget deviation and local government financial condition variables are significant, except for financial autonomy and net borrowing. Personnel expenditure and local government financial condition variables have significant correlation except for accumulated surplus. Regent/mayor's gender do not have significant correlation with local government financial condition variables except for current surplus and financial autonomy. Budget deviation have significant correlation with geographical location and personnel expenditure. Regional GDP have significant correlation with geographical location, regent/mayor's gender, and personnel expenditure.

	CS	FA	RG	AS	BD	GL	MG	ER	PE	EY	EY-1	EY+1	PY	NB
CS	1													
FA	-0.099***	1												
RG	-0.122***	0.522***	1											
AS	0.026	0.049**	0.075***	1										
BD	-0.234***	0.018	0.025	0.297***	1									
GL	-0.000	-0.198***	-0.449***	-0.024	0.132***	1								
MG	0.042*	-0.115***	-0.157***	-0.009	0.027	0.182***	1							
ER	0.268***	0.040*	0.205***	-0.131***	-0.224***	-0.356***	-0.035	1						
PE	0.333***	0.045*	0.214***	0.031	-0.206***	-0.365***	-0.042*	0.968***	1					
EY	0.016	-0.017	-0.014	-0.094***	-0.048**	-0.031	-0.011	0.097***	0.078***	1				
EY-1	0.032	-0.012	0.018	-0.078***	-0.097***	-0.085***	0.015	0.079***	0.071***	-0.107***	1			
EY+1	0.039*	0.001	-0.019	0.124***	0.044*	0.026	-0.023	-0.026	0.008	-0.224***	-0.147***	1		
PY	-0.043*	0.065***	0.057**	0.058**	0.073***	0.061***	-0.034	-0.188***	-0.163***	-0.253***	-0.160***	0.074***	1	
NB	0.127	-0.129***	-0.141***	0.082***	-0.018	0.163***	0.011	-0.107***	-0.081***	0.022	0.025	0.029	-0.058**	1

Note: CRR = current expenditure rebudgeting; CPR = capital expenditure rebudgeting; TRR = transfer expenditure rebudgeting; TTR = total expenditure rebudgeting; BD = budget deviation; PE = personnel expenditure; AS = accumulated surplus; CS = current surplus; FA = financial autonomy; ER = expenditure rigidity; NB = net borrowing; RG = regional GDP; EY = election year; EY-1 = one year before election year; EY+1 = one year after election year; MG = regent/mayor's gender; GL = geographical location; PY = presidential election year . *, **, ***=significant at 10%, 5%, 1% respectively

Hypothesis Testing

From an explanatory viewpoint, table 4 report the regression coefficient and the significance thresholds for the fixed-effect.

From table 4, there is negative effect of budget deviation on rebudgeting. Budget deviation is negative and strongly significant ($p < .01$) across all specifications. Here, hypothesis 1 is generally supported. This result implies that rebudgeting is a complement process to the budget formulation.

Hypothesis 2a and 2b is supported by election year and regent/mayor gender, but only for partial budget. More specifically, election year has significant effect on capital spending rebudgeting, one year before election year has significant effect on transfer spending rebudgeting, one year after election year has significant effect on total spending rebudgeting, and regent/mayor gender has negative effect on current spending rebudgeting. Hypothesis 3 is generally supported. Personnel expenditure is negative and significant ($p < .1$) across all specifications except on transfer spending rebudgeting.

Hypothesis 4 is partially supported. For hypothesis 4a, accumulated surplus is significant ($p < .1$) across all specifications except on transfer spending rebudgeting. For hypothesis 4b, current surplus is negative and significant ($p < .1$) on current spending and total spending rebudgeting. For hypothesis 4c, local government financial condition is negative and significant ($p < .05$) on current spending and total spending rebudgeting. For hypothesis 4d, expenditure rigidity is negative and strongly significant ($p < .01$) on transfer spending, but positively significant ($p < .1$) on capital spending rebudgeting. For hypothesis 4e, net borrowing is negative and significant ($p < .1$) only on transfer spending rebudgeting. Hypothesis 5a is confirmed by the negative and statistically significant coefficient ($p < .1$) of regional GDP for capital spending and total spending rebudgeting.

Table 4 Hypothesis Testing

Variable	CRR	CPR	TRR	TTR
BD	-0.154*** (-10.369)	-0.502*** (-7.836)	-0.119*** (-2.318)	-0.263*** (-18.251)
EY	-0.002 (-0.524)	0.029* (1.503)	0.003 (0.183)	0.001 (0.154)
EY-1	-0.004 (-0.551)	0.000 (0.006)	0.039** (1.749)	0.002 (0.387)
EY+1	0.002 (0.392)	-0.005 (-0.271)	-0.008 (-0.572)	0.007** (1.808)
MG	-0.020* (-1.411)	0.0187 (0.297)	-0.005 (-0.103)	-0.002 (-0.145)
PE	-0.278*** (-3.017)	-1.630*** (-4.095)	0.132 (0.427)	-0.480*** (-5.366)
AS	0.205*** (7.036)	0.862*** (6.858)	0.106 (1.082)	0.379*** (13.426)
CS	-0.115*** (-3.798)	-0.075 (-0.579)	-0.059 (-0.591)	-0.475*** (-16.181)
FA	-0.163** (-1.750)	-0.009 (-0.022)	-0.152 (-0.469)	-0.167** (-1.837)
ER	-0.014 (-0.154)	0.962*** (2.396)	-0.430* (-1.382)	-0.079 (-0.876)
NB	0.006 (0.751)	-0.028 (-0.833)	-0.063*** (-2.369)	-0.001 (-0.137)
RG	0.006 (0.184)	-1.743*** (-12.339)	-0.101 (-0.897)	-0.228*** (-7.184)
PY	-0.004 (-0.811)	0.064*** (3.043)	0.020 (1.229)	-0.008** (-1.709)
Observations	1831	1825	1692	1831
R ²	0.535	0.482	0.369	0.687
Adjusted R ²	0.362	0.289	0.117	0.569
F-statistic	3.087	2.489	1.462	5.874
Prob (F-Stat)	0.000	0.000	0.000	0.000

Note: CRR = current expenditure rebudgeting; CPR = capital expenditure rebudgeting; TRR = transfer expenditure rebudgeting; TTR = total expenditure rebudgeting; BD = budget deviation; PE = personnel expenditure; AS = accumulated surplus; CS = current surplus; FA = financial autonomy; ER = expenditure rigidity; NB = net borrowing; RG = regional GDP; EY = election year; EY-1 = one year before election year; EY+1 = one year after election year; MG = regent/mayor's gender; PY = presidential election year. *, **, ***=significant at 10%, 5%, 1% respectively.

DISCUSSION

From the descriptive part showing how rebudgeting's trend is, the results of this study indicate that upward revisions to the budget are more frequent than downward revisions. It presences in all specifications with highest upward revision percentage (94.24%) goes to total expenditure budget, while the lowest percentage (54.84%)

goes to transfer expenditure budget. These results are in line with Dougherty et al. (2003). The increases indicate that the budget administrator tend to set the initial expenditure budget low. Time available to formulate the initial budget could also contribute to this matter; short period given in formulating the budget could lead the planner and budget administrator to copy previous year's budget then add or cut some activities for next year's budget. Boyne et al. (2000) defines this behavior as incrementalism, mainly for the first description: budget are usually characterized as incremental if the departure from the previous year's expenditure base is small.

In this regard, we measure degree of incrementalism by budget deviation. Our result indicates that degree of incrementalism significantly affects rebudgeting negatively. This result confirms the previous study of Anessi-Pessina et al. (2012) who find significant association between budget deviation and rebudgeting. They also state that the result is in line with the fact that rebudgeting is complementary to initial budget formulation.

The result of this study provides evidence that election year significantly contributes to different parts of rebudgeting: (1) election year significantly influences current spending rebudgeting, (2) one year before election year has significant effect on transfer spending rebudgeting, and (3) one year after election year significantly affects total spending rebudgeting. These results partially prove the presence of political budget cycle and slightly different from Sjahrir et al. (2013) who find the relationship between years elapsed after election and current expenditure rebudgeting. Toward the election, regent/mayor attempts to raise public's vote by increasing transfer expenditure for community-village fund and for political parties aid. After the election, elected regent/mayor tends to revise the initial budget to catch with his/her vision and mission statements. This study also provides that regent/mayor's gender negatively affects current spending rebudgeting. This result confirms Fox and Schuhmann (1999) who find that as local government manager, women and men act differently. In decision making process, women managers consider more about budgetary constraints, accordance with city norms, and public opinion; while men manager rely on input from their staffs. By considering city norms and public opinion, women emphasize on preserving the community and serving what residents want. Those alignment results in more employment for women in local government environment. Saltzstein (1986) points out about the benefit of having female mayors: more municipal government employment for women. Increasing female staffs in government employment might lead to higher current spending needs; thus rebudgeting on current expenditure is needed.

Previous study conducted by Anessi-Pessina et al. (2012) found that personnel expenditure, which reflect the organization's size, do not affect rebudgeting. The result of this study provide the different evidence. The result shows that personnel expenditure negatively affect rebudgeting on current, capital, and transfer spending. The amount of personnel expenditure might indicate the complexity scale of one organization. Bigger organization tends to be more rigid and overly bureaucratic, thus slower the rebudgeting process which might cause fewer rebudgeting.

The result of this study provides evidence that accumulated surplus positively affects rebudgeting on current, capital, and total spending. This study confirms Dougherty et al. (2003) that budget surplus is used significantly for capital spending activities. However, Anessi-Pessina et al. (2012) find that accumulated surplus and rebudgeting have negative correlation.

For current surplus, the result shows that it negatively affects rebudgeting on current and total spending. Thus, the bigger difference between revenue and expense, the fewer rebudgeting has done on current and total spending. The more flexibilities hold by the local government in initial budget planning and formulation which lead to fewer rebudgeting on current year can be the explanation.

In their study, Anessi-Pessina et al. (2012) point out negative relationship between financial autonomy and rebudgeting on capital spending. It provides evidence about negative effect of financial autonomy on current rebudgeting and total spending rebudgeting. Local governments with higher PAD is more likely to enjoy well-build infrastructure and adequate human resources. Thus, budget planning and formulation would be well-targeted and fewer rebudgeting would be done on current year.

This study provides evidence about positive effect of expenditure rigidity on capital spending but negative effect on transfer spending rebudgeting. It is tally with Anessi-Pessina et al. (2012) who found positive effects between expenditure rigidity and rebudgeting on current spending. This study also provides evidence about negative effect of net borrowing on transfer spending rebudgeting. It is more likely that borrowing drives the local government to be more conservative in formulating the initial budget, including transfer spending. However, Anessi-Pessina et al. (2012) point out negative effect of net borrowing on capital spending rebudgeting.

Further, the result of this study provides evidence that regional GDP has negative effect on capital and total spending rebudgeting. As an indicator to evaluate how far the economic development has been done in an area, regional GDP could also capture the infrastructure in that area. Local government with lower regional GDP does more mid-year adjustment on capital and total spending. This might arise from obstacles emerged from less-adequate human resource and infrastructures in formulating the initial budget.

CONCLUSIONS

The purpose of this study is to investigate the determining factors of rebudgeting using a panel data set of local governments in Indonesia over a period of 2010-2014. The findings shows that both internal and external factors have significant effects on rebudgeting. The findings document degree of incrementalism negatively affects rebudgeting. Planning and formulation of the initial budget has been accomodate budget needs, thus fewer rebudgeting has been done on current year. For political variable, election years positively affect rebudgeting but not for all specification; while regent/mayor's gender has negative effect on rebudgeting. Toward the election, regent/mayor attempt to raise public's vote by increase transfer. After the election, elected regent/mayor tend to revise the initial budget to catch with his vision and mission statements. Organizational feature has negative effect on current, capital, and total expenditure rebudgeting. Bigger organizations are likely to be more rigid and more procedural in doing mid-year adjustment.

For local government financial condition, accumulated surplus has positive effect on current, capital, and total expenditure rebudgeting; current surplus and financial autonomy has negative effect on surrent and total expenditure rebudgeting; expenditure rigidity has positive effect on capital expenditure but negative on transfer expenditure rebudgeting; and net borrowing has negative effect on transfer expenditure rebudgeting. Local socioeconomic environment negatively affect capital and total expenditure rebudgeting. Regional GDP reflects the infrastructure condition of a local government. Local governments with smaller regional GDP tend to have less adequate human resource and infrastructure. Thus, insufficiency in the initial budget formulating is common for those regions.

The current study extends the findings from Anessi-Pessina et al (2012) into four aspects: current spending, capital spending, transfer spending and total spending. Therefore, the current study contributes to the more comprehensive understanding of rebudgeting, especially in the context of developing countries like Indonesia. The result of the study also confirms that budget deviation have significant effect on total spending rebudgeting and also for each component current, capital and transfer spending. Thus, it is important to analyze budget deviation for rebudgeting process.

The results of the study also have practical implications. First, rebudgeting has yearlong process (Anessi-Pessina et al., 2012). Therefore it is important to consider the effect of internal and external factors on the rebudgeting process. Second, budget deviation has negative effect on rebudgeting process. Thus, the higher budget deviation will decrease the rebudgeting of local government spending. It is important to consider budget deviation to predict rebudgeting. Further, total spendings are affected by several factors such as personnel expenditure, accumulated surplus, current surplus, presidential election year and regional GDP. Thus, there is significant effect of presidential election year on the rebudgeting process.

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