**Fiscal decentralization & government size;**

**a case study on government in indonesia**

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**Abstract**

***Purpose***: The research is aimed to examine Brennan-Buchanan’s decentralization hypothesis. According to Brennan and Buchanan, decentralization creates competition among areas or regions. In case such competitions run as desired by decentralization mechanism, the government does not have many chances to increase its income that forcing resources allocation to fulfill goods and public services needs based on desired preferences by local people. More decentralized local governments create fewer interventions by central government in economy that the government size decreases along with wider range of effective decentralization

***Methodology***: The research objects are all Indonesian Regency/Municipality Governments. The data have been consecutively taken from 2004 to 2014 with valid sample of 183 Provincial and Regency/Municipality Governments out of total 468 Provincial and Regency/Municipality Governments recorded in table of General Budget Calculation of 2005-2011.

***Results***: The results show that relationship between fiscal decentralization and government size is not statistically significant, though its relationship coefficient is negative as predicted in the decentralization hypothesis, more decentralized a government creates more small government size

***Applications/Originality/Value*:** Decentralization, fiscal decentralization, efficiency, government size

**Introduction Section**

The Implementation of decentralization and needs of decentralized policies has significantly increased both in developing and developed countries during the last two decades (del Granado et.al, 2005). In its report, World Bank ([www.worldbank.or.id](http://www.worldbank.or.id/)) states that in developing countries, decentralization is an effective instrument to reorganize the government in order to provide cost-efficient public goods and services, while in the developed countries, efforts to transfer from centralistic government to decentralized government is away to free themselves from inefficient and ineffective management, instable macroeconomy, and insufficient economic growth.

In appropriate condition, decentralization can remove problems in making decisions often caused by centralized planning and controls toward important activities. Decentralization can decrease the complexity of bureaucracy procedure and improve government staffs’ sensitivity toward local people’s needs that effectively support the programs by give more chances for local people to participate in the decision making. However, decentralization may give the opposite results when administrative ability and technical capacity of the area are insufficient; transfer of administrative responsibilities without sufficient financial resources that distribution or service delivery is difficult to spread evenly. Moreover, decentralization sometime makes coordination on national policies more complex that central government loses economic scale and control on rare financial resources. Thus, any efforts to create effective and efficient government through decentralization depend on many internal and external factors inside the government itself (Ebel and Yilmaz, 2001).

Highlighting fiscal decentralization, Brennan and Buchanan cited in Rodden (2003) describe the government as ’leviathan’, namely a party always tries to maximize its local potential income, especially tax income. Fiscal decentralization forces the government to conduct tax competition that removes leviathan monopoly in taxation and bring the government closer to its people’s preferences. According to Brennan and Buchanan, more decentralized a government creates fewer interventions of the government in economy. In case the competition runs as desired by decentralization mechanism, the government will not have many chances to add its income fro tax. Such a condition, in turn, forces resource allocation to fulfill needs on public goods and services based on local people’s preferences. Thus, it is expected that decentralization will influence public expenses performed by government through its budget.

Many studies were conducted on fiscal decentralization and government size with various results. Feld et.al’s (2003) research conducted in Swiss; Grossman and West’s (1987) and Grossman’s (1989) researches conducted in Canada; and Joulfain and Marlow’s (1990) research conducted in USA give empirical supports for the influence of fiscal decentralization towards government size. Oates (1985) showed no impact of fiscal decentralization towards government size. This research took sample of 43 IMC countries and 48 states of USA. Researches conducted by Nelson (1986), Anderson and Van den Berg (1998), and Jin and Zou (2002) also show no statistically support towards Brennan and Buchanan’s decentralization hypothesis by giving evidence that expense decentralization had no impact towards government size, while income decentralization influenced government size.

Indonesia is one of the developing countries[[1]](#footnote-1) entering decentralization era established by Law No. 22 and 25 of 1999. Law No. 22 and 25 of 1999 is a sign that Indonesia has taken a big step to implement political decentralization and expense decentralization to local governments. Through Law No. 22 of 1999, transfer of most central government’s expense functions to regency/municipality governments occurs but for financial, external relationship, defense, religion and government administration. Under Law No. 22 of 199, provincial governments do not have hierarchical authorities to regency/municipality governments and most of provinces conduct coordinative duties only. In addition, as ruled in the Law, regency/municipality governments must conduct some functions previously conducted by provincial government including agricultural development, transportation, environment, land management, trade and industrial management involving education, health and local infrastructure.

Indonesia is a good example of describing non-comprehensive fiscal decentralization. Though most government expenses are transferred to local governments, but Indonesia–following external suggestions–does not conduct the same thing to tax. Balance fund and revenue sharing for provincial governments and regency/municipality governments can be a mechanism weakening objectives of fiscal decentralization itself (Fiva, 2005).

Indonesian decentralization background and minimal efforts to empirically analyze actual impacts of the decentralization towards government size in developing countries, especially in Indonesia, are the reasons why this research is conducted to get explanation based on empirical evidence for the question: “Does fiscal decentralization influence Indonesian government size?”

**Theoretical Framework And Development Of Hypothesis**

***Concept Of Fiscal Decentralization***

In general, fiscal decentralization is defined as the transfer of authority and responsibility in fiscal management from central government to local governments to run public functions. Meloche et.al (2004) agreed that fiscal decentralization consists of three related processes: deconcentration, delegation and devolution. According to Bird and Vaillancourt in Alm et.al (2001), deconcentration means responsibility spreading in central government itself to local regional offices or local administrative units. Central government transfers parts of its duties to local administrative units without any freedom in case of authority and policy. Delegation refers to process of responsibility transfer from central government to local governments as agents of central government in running specific functions on the name of central government. In such a model, local governments have freedom in certain levels to provide public services, though they must always consider and follow central government’s instructions and requests. The last model is devolution, i.e. transfer of responsibility to run central government’s functions accompanied with authority to make any decisions relating public expenses being local government’s responsibility and procedures to support the public expenses. In such a situation, local government is an independent unit making decisions directly response local people’s desires and needs in providing public services. Davey (2003) confirms that fiscal decentralization includes devolution financial aspects to local government including two related issues. The first is sharing of responsibility to expenses and income sources among government levels (national, central, local), and the second is discretional amount given to central and local governments to determine expenses and income both in aggregate and details. The large authorities and responsibility of central and local governments in running decentralization depend substantively on range of public serviced born by related government; balance between income the government gets by its responsibility; various real choices owned by the government in allocating budget on individual services; and the large room provided by regional and local governments to determine tax and retribution levels. Recent research adopts devolution concept as the definition of fiscal decentralization though in certain levels, in Indonesia, not all local people’s preferences and needs for public services are mirrored in local budget.

Kee (2003) states that there are three basic reasons causing the implementation of fiscal decentralization in a government. First, central government finds that it is quite impossible to fulfill all needs proposed by its constituents and, furthermore, central government tries to build local capacity by delegating responsibility to local government. Second, central government invites local government to assist in developing national growth strategies. Third, political leaders in local areas ask for more autonomies and authorities on taxation be given with authority on public expenses that must be conducted by local government. According to Kee (2003), fiscal decentralization is devolution of specific functions by central government to local government along with administrative authority and fiscal income to run such functions. Kee (2003) also states that fiscal decentralization may not give optimal results as proposed by the concept caused by some factors. First, tax payer does not have sufficient information or does not have power to press local policies makers to make some decisions for efficient resources allocation. Second, local politicians may be more corruptive than national ones or, at least, some corruption situations occur around them. Third, quality of local bureaucrats is not much better than that of national bureaucrats. Fourth, local government has less sufficient management system on public expenses to make taxation and budget policy.

Although decentralization has some weaknesses, Tiebot (1956) believed that in a decentralized area or region, people mobility, voters’ power, and competition among local areas ensure balance among local public services with people’s preferences and support efficiency. During 1972, Oates formalized his decentralization theorem. Here is the quotation of Oates’ (2006) decentralization theorem:

***The Decentralization Theorem****: For a public good—the consumption of which is defined over geographical subsets of the total population, and for which the costs of providing each level of output of the good in each jurisdiction are the same for the central or for the respective local government—it will always efficient (or at least as efficient) for local government to provide the Pareto-efficient levels of output for their respective jurisdiction than for the central government to provide any specified and uniform level of output across all jurisdictions.*

Through the decentralization theorem it is explored that local government is mostly appropriate to provide locally public services since it is trusted that local government best understands local needs and desires compared with central government. The expected effect is the big chance for efficient allocation in providing locally public services, meaning that local government can provide services to a point where existing value of the last unit affordable by the people matches with derived benefits. It indirectly states that the government must be free in loading own-source revenues to match people’s preferences on expenses side.

***Concept of Government Size***

Garret and Rhine (2006) classify government size theories into two main groups: *citizen-over-state theories of government growth* and *state-over-citizen theories of government growth*. The first group is derived from a premise that people demand certain programs to the government and the government responds it, then government growth occurs because of people’s demand to the government continuously increases. This premise brings median voter theorem stating that people directly determine government’s expenses and that such expenses are the only issues in election.

In the second group, *state-over-citizen theories of government growth*, there are three theories explaining government size viewed from perspective of relationship between government and people. The first theory is bureaucracy theory stated by Niskanen (1971) in Garret and Rhine (2006) stating that government bureaucrat maximizes its agencies budget based on its preferences and bureaucrats can do this by their unique position to monopolize bureaucracy. By such a position, it is quite possible that bureaucracy size is larger than required budget to fulfill people’s demands. Bureaucracy theory states that bureaucrat will maximize the budget based on the limitation given by budget to cover costs required to produce the goods and services. It implies that bureau’s budget and its outputs will get larger beyond a point where marginal profits of public goods and services is equal to bureau’s marginal costs to provide the public goods and services.

The second theory is *fiscal illusion* assuming that government can deceive the voters about the real government size and people measure government size based on quantity/amount of taxes they pay. One of illusion theory perspectives was explained in 1988 by Wallace Oates with his *fly-paper effect* hypothesis stating that lump-sum increase of revenue from one government level to other government level like loan from federal government to state government will increase government expenses in the same amount as the people’s income increase of the state. The last theory is Leviathan government stated by Brennan and Buchanan in 1980 viewing a government as a monopolist with one only objective to maximize its revenue. People are assumed to have no controls towards their government and political competition is viewed as ineffective boundaries for government growth. It is only a constitutional boundary toward government’s authority to draw taxes and to issue loan in order to limit a a government adopting leviathan model.

Quantitative analysis usually compares government size and existing government’s statistical size like expenses, revenue or jobs/positions, without more elaborating validity of such indicators. Hage (2003) indirectly explains definition of government size. A government consumes goods and services, allocates or distributes resources, and draws taxes, in which all of them can be measured by monetary terminology. However, certain things as costs and profits can not be measured by monetary measurement. In short, there are many ways conducted by government to influence economy but they are insufficiently represented by monetary indicators. Thus, the intended government size is any activities performed by government or any government interventions in running government functions that may influence economic condition of a region. According to Lane (2000) via Hage (2003), government is not limited to the definition of national government or state government as the only agent making decisions relating economic and output issues, but government in this context means an institutional system or organization relate each other in all levels of central, state and local governments (in context of federal).

***Fiscal Decentralization And Government Size***

Recent research examines fiscal decentralization effects towards government size based on leviathan theory. According to leviathan concept, government has limitation to run its authority in drawing taxes towards its people. Furthermore, government will support public service allocation more efficiently and goods and services availability occurs by competitive tax loading among governments that decentralization causes efficiency in public expenses. Consequently, other things will not change while government size should be smaller when it is more decentralized. Basically, leviathan model is an alternative approach adopted to measure theoretical benefits caused by decentralization, i.e. efficiency. This alternative approach is required by the limitation to measure efficiency caused by decentralization directly to entire government activities (Kwon, 2002).

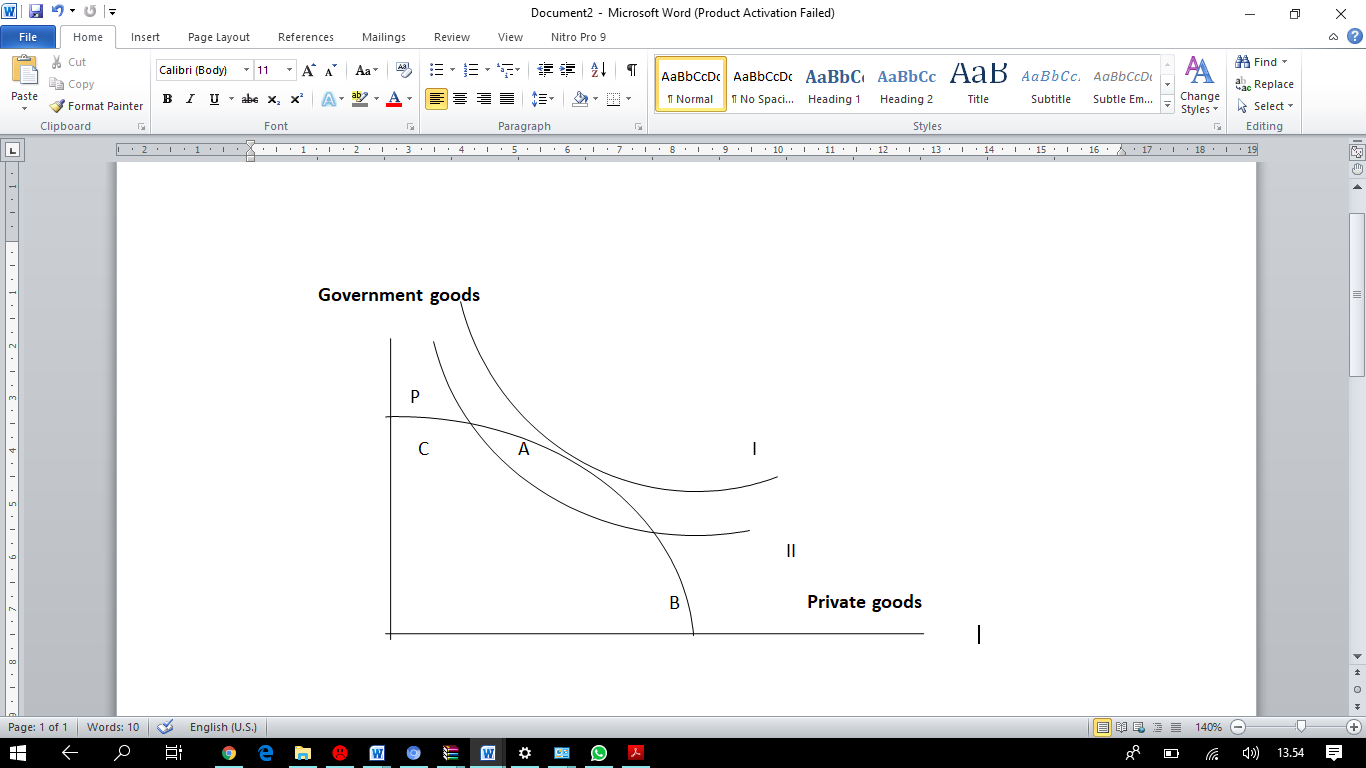
Some empirical studies had examined competition among governments towards aggregate government. Started from a research conducted by Oates (1985) empirically showing that more decentralized region and state in case of revenue and expenditure tend to associate with the smaller such a sector. It is inconsistent with decentralization hypothesis. Another, regression results do not provide real supports to a view stating that decentralization limits government size and vice versa, decentralization creates more expansive government. The research results were criticized by Marlow (1988) since Oates ignored federal government that he did not include more than half total activities on public sector. Second, the use of tax revenue as an indicator of government size tends to minimize the real public sector size since some of the activities were funded by loan and some of government budget was designed to be deficit. Ehdaie (1994) tries to treat fiscal decentralization simultaneously between government ability to draw taxes and its authority to make budget policy for answering some past research results regarded as ignoring simultaneity of taxing-spending decisions. The research findings confirm that simultaneity of decentralization from central government to taxing-spending powers give negative impacts toward whole public sector size. Income distribution by taxing decisions concentrated on central government will eliminate negative impacts of decentralization from spending power. By cross-sectional sectional data for 1981 and 1984 including 50 states in USA, results of research conducted by Joulfaian and Marlow (1990) give more supports to decentralization hypothesis. The research is claimed to be more valid that previous researches since it includes measurement on government size from expenses of all government units by dividing federal government expenses on the basis of per state. According to Kwon’s (2002) research, more decentralized government tends to associate with larger expenditure. It occurs on local government instead of central government. Consequently, local expenditure tends to be higher while at the same time central expenditure and total expenditure tend to be lower. The results of consecutive research show that central government acts as a leviathan as hypothesized by Brennan and Buchanan while local government responds quicker that people’s demands expected by local expense increase when fiscal decentralization runs.

Replication of leviathan model performed by Oates was reexamined by Ebel and Yilmaz (2002) by observing the influences of a structure of local government revenue towards public sector measurement in context of decentralization. The results show tax autonomy in sub-national level have negatively significant impacts on public sector measurement. Results of other test show that non-tax autonomy increase causes the increase of public sector measurement while sub-national fiscal dependency and sub-national tax sharing variables are not statistically significant, meaning that both variables have no significant influences towards public sector. Meloche et. al (2004) experiment as a replication of Oates model shows general results that significantly positive relationship occurs between decentralization—measured as subnational share of government revenue and expenditure—and government size. Based on Leviathan theory, such a relationship should be negative. Conclusion derived from the experiment is that there are no negative relationships between decentralization and public sector measurement.

***Hypothesis Development***

Brennan and Buchanan’s decentralization theory states that all government interventions in economy must be smaller, *cateris paribus*, when more taxing-spending decentralization is run by a government. In case it is related to public goods and services provide, the examination on decentralization hypothesis could be conducted by firstly define level of “all interventions in economic sector” in a country or region. Ideal condition for such examination occurs when “all interventions in economic sector” are higher than existing needs or commonly called *overprovision*. Bahl and Linn (1992) via Kwon (2002) argue that *overprovision* may not be experienced by developing countries since they usually have problems to provide sufficient support for goods and service availability by various reasons. Bahl and Lim (1992) via Kwon (2002) describe the working procedure of fiscal decentralization of public goods and private goods supplies by the following diagram:

**Figure 1.** Mechanism indifferent curve on public goods and services supply



Efficient point of consumption and production of 1 private goods and 1 public goods is A, when indifference curve of community I is tangent to possibility curve of production P. Now, assume that decision maker chooses condition in point C instead of point C. On point C, there are too many products publicly produced. Inefficiency of resources allocation is caused by the fact that new consumption and production points of C is located in lower indifference curve (II). Resources mislocation causes misconsumption from consumption along P. Point C indicates a situation that “all interventions in economy” are higher than what really expected by local people. In order to reach optimal consumption in point A, decreasing public product production and increasing private product production are two possible ways to do. Decentralization hypothesis states that fiscal decentralization can play the role. Furthermore, in *underprovision* condition, decision makers choose consumption on point B when public products are too few. In order to reach optimal consumption on point A, public products increase and private products decrease are possible ways to do. In a condition where insufficient goods and services available, fiscal decentralization may increase “all interventions in economy” caused by any forces to competitively behave demanding a balance between public goods supply and their demands that fiscal decentralization can improve public sector measurement. Unfortunately, it is difficult to directly detect level of government interventions in economy of a region that it requires a specific approach to identify overprovision or underprovision conditions in a region to analyze.

In Indonesia, during 2001, total fund allocated for local areas through Balance Fund (*Dana Perimbangan)* was Rp. 82.4 trillion or 5.6% of GDP with realization reached Rp. 81.054 trillion. It increased sharply compared with realization of balance fund in 2000 for Rp. 33.074 trillion or equal with 3.3% of GDP. Balance fund realized in 2002 budget reached Rp. 94.038 trillion or 5.1% increase compared with that of 2001. 2002 National Budget transferred to local areas other than Balance Fund and Special Autonomy and Balancing Fund was Rp.3.437 trillion. Thus, total fund transferred to local areas during 2002 were Rp.97.477 trillion or equal to 32.45% Internal Revenue or 27% of National Expenditure. The increase of local area portion through intergovernment transfer intergovernment transfer from 13% in 1990/2000 budget to 28% 2004/2005 budget indicates a tendency that fiscal decentralization range increase from previously centralized in central government. Moreover, Brodjonegoro (2004) states that for three years of decentralization, Indonesia has been a country with relatively high decentralization action. Researcher calculates based on sample of 183 provincial and regency/municipality levels out of 347 provincial and regency/municipality levels recorded in 2003. Calculation results show that there have been changes on government expenditure during last 10 years. Local expenditures increased twofold since 1998 budget (before decentralization) compared with local expenditures during 2002 from 11% to 22% and it continued to increase to be 26% and 23% in 2003 and 2004 budgets, respectively. Furthermore, local expenditures were also increase compared with those of central government, i.e. from 35.8% in 2001 to 47.19% in 2002, and although it decreased to 37.73% in 2003, it was till higher than that of before decentralization. There is also same condition to describe indication of revenue decentralization equal with the researcher’s calculation by using 176 samples of level I and II governments. Based on his calculation, local taxes in Indonesia changed during 1995-2004 period. Local tax sharing increased twofold from 2.6% in 1998 budget and 3.22% in 1999 budget to 5% in the beginning of fiscal decentralization – 2001 budget – and increased in stage to be more than 6% in 2003 and 2004 budgets. Such increases in stage imply a change in local tax amount during 3 first years of fiscal decentralization in Indonesia. In indicates revenue decentralization–on certain level. Thus, the first hypothesis of this research is as follows:

**H1**: fiscal decentralization causes total government size smaller.

Carefully observing the implementation of local government functions in decentralization era, Brodjonegoro (2004) states that autonomy emphasizing in local government level causes a shift of government expenditures from previously dominated by central budget or APBN to decentralized expenditure dominated by local budget or APBD. According to authorities given by Law No. 22 of 1999, local government is mandated to run eleven public service obligations. since decentralization concept means devolution, the transfer of such functions must be followed by spending sources acquisition that fully determine by local government. Local government’s income is derived from Genuine Local Income (*Pendapatan Asli Daerah/PAD)* that mostly from local taxes and retributions; central government sharing; General Allocation Fund (*Dana Alokasi Umum*) and Specific Allocation Fund (*Dana Alokasi Khusus*); and others. In case this concept is related to goods and services providing as a representation of government intervention to economy in expenditure side, it is assumed that such an intervention referring leviathan theory is tax. Thus, taxing ability of agovernment indirectly describes level of government interventions in economy of the region. In case of Indonesia, local taxing tends to increase after decentralization and at the same time local expenditure also tends increase. However, it must be carefully observed that based on the data presented by World Bank via Sidik (2002), taxing power in Indonesian local governments is relatively lower than that of other countries (see appendix 1).

Other data shows that PAD portion – local tax is one of its components – tends to increase from previously 6.7% of total local income in 2001 to 8% of total local revenue in 2002. While DAU/DAK as dominant revenue sources for local government, their portions tend to decrease from 71.4% in 2001 to 68.6% in 2002. Sharing portion for total revenue is relatively still high of 18.3% in 2001 and 2002. For details see appendix 2. Based on condition after implementation of fiscal decentralization as explored above, the research hypothesizes that:

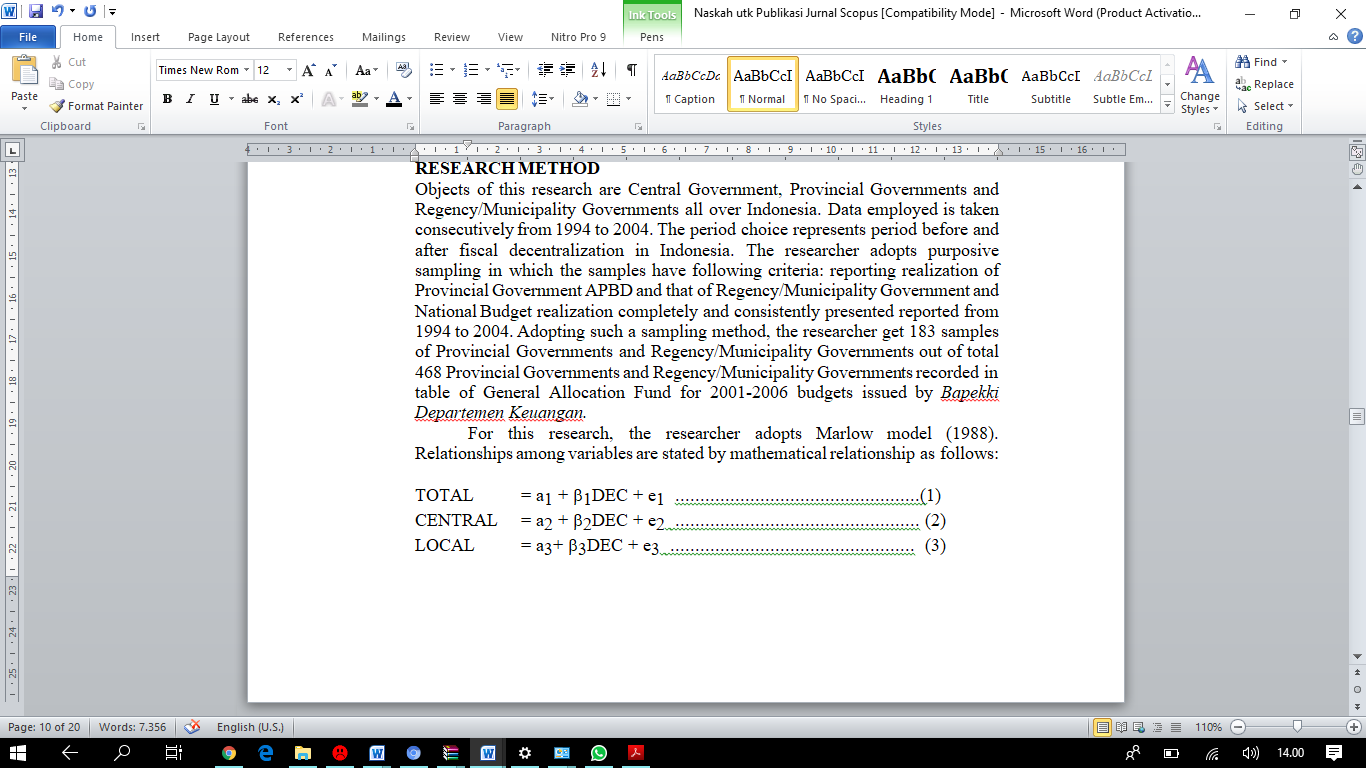
**H2**: fiscal decentralization causes central government size decreases

**H3**: fiscal decentralization causes local government size increases

***Research Method***

The Objectives of this research are Central Government, Provincial Governments and Regency/Municipality Governments all over Indonesia. Data employed is taken consecutively from 2004 to 2014. The period choice represents period before and after fiscal decentralization in Indonesia. The researcher adopts purposive sampling in which the samples have the following criteria: reporting realization of Provincial Government APBD and that of Regency/Municipality Government and National Budget realization completely and consistently presented reported from 2004 to 2014. Adopting such a sampling method, the researcher get 183 samples of Provincial Governments and Regency/Municipality Governments out of total 468 Provincial Governments and Regency/Municipality Governments recorded in table of General Allocation Fund for 2006-2011 budgets issued by *Bapekki Departemen Keuangan.*

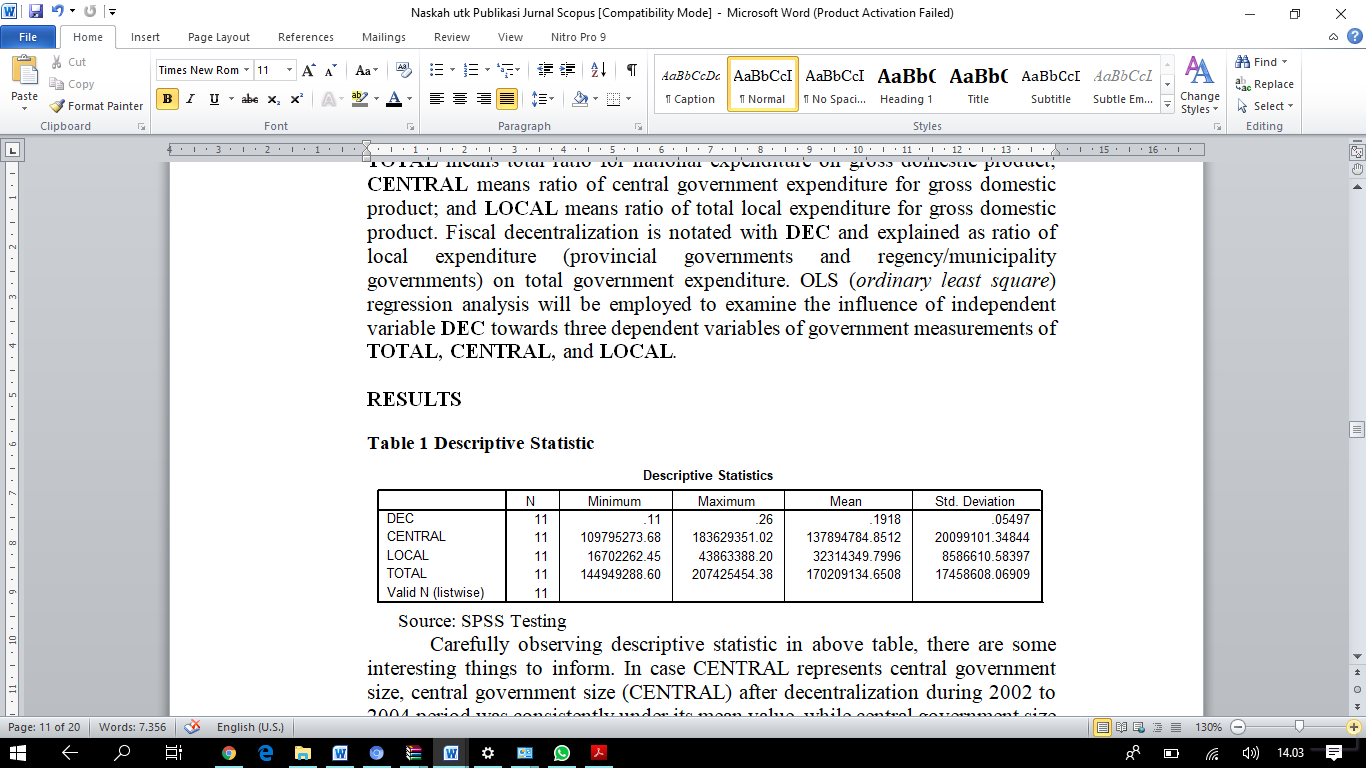
For this research, the researcher adopts Marlow model (1988). Relationships among variables are stated by mathematical relationship as follows:



**TOTAL** means total ratio for national expenditure on gross domestic product; **CENTRAL** means ratio of central government expenditure for gross domestic product; and **LOCAL** means ratio of total local expenditure for gross domestic product. Fiscal decentralization is notated with **DEC** and explained as ratio of local expenditure (provincial governments and regency/municipality governments) on total government expenditure. OLS (*ordinary least square*) regression analysis will be employed to examine the influence of independent variable **DEC** towards three dependent variables of government measurements of **TOTAL, CENTRAL,** and **LOCAL***.*

***RESULTS***

**Table 1 Descriptive Statistic**



Carefully the observing descriptive statistics in the above table, there are some interesting things to inform. In case CENTRAL represents central government size, central government size (CENTRAL) after decentralization during 2012 to 2014 period was consistently under its mean value, while central government size (CENTRAL) during 2004-2009 period shows a tendency to increase but that for 2000. For LOCAL variable, minimum value occurred in 2005 and maximum value occurred in 2008. By mean value 32,314,349, all values for LOCAL variable during implementation of decentralization were above their mean values. While in previous period of before decentralization, it tends to decrease but that for 2009 and since 2008-2010 the LOCAL variable values were consistently below their mean values. It is interesting since CENTRAL variable values were above their mean values for the same period.

***HYPOTHESIS TESTING***

The first hypothesis of this research is that fiscal decentralization causes total government size smaller.

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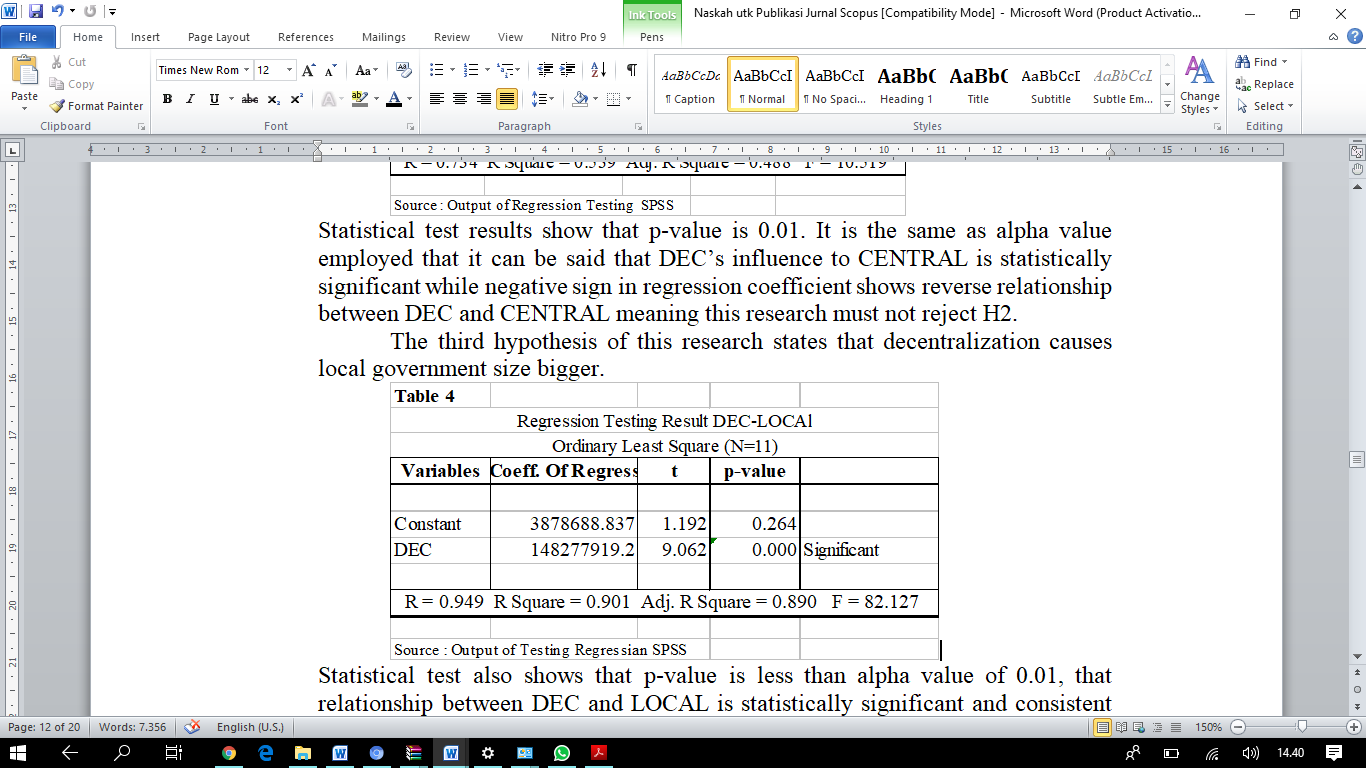
Testing results shows that p-value, 0.251, is higher than alpha value of 0.01 that relationship between DEC and TOTAL is not statistically significant although the table also shows that relationship between DEC and TOTAL is negative. It is consistent with prediction that more decentralized government creates smaller government size.

The second hypothesis of this research states that fiscal decentralization causes central government size smaller.



Statistical test results show that p-value is 0.01. It is the same as alpha value employed that it can be said that DEC’s influence to CENTRAL is statistically significant while negative sign in regression coefficient shows reverse relationship between DEC and CENTRAL meaning this research must not reject H2.

The third hypothesis of this research states that decentralization causes local government size bigger.



Statistical test also shows that p-value is less than alpha value of 0.01, that relationship between DEC and LOCAL is statistically significant and consistent with the positive sign on regression coefficient between DEC and LOCAL meaning that higher DEC causes higher LOCAL. Then, based on above data, this research can not reject H3 though decentralization hypothesis proposed by Brennan and Buchanan is not valid for local governments in Indonesia.

**Acknowledgement**

Leviathan theory proposed by Brennan and Buchanan is based on a concept that an obstacle in budget funding mechanism is required that government able is able to run its functions efficiently. The role of tax in this theory is so important since, conceptually, the increase of government expenditure funded by tax income proportionally will give positive impact towards demands and aggregate output. However, increase of tax income also brings negative impact towards working and saving spirit being able to limit production capacity that offer can not meet the demand (*BAF-Depkeu RI*, 2002).

Above condition makes the government through its fiscal instrument of tax to draw people’s and entrepreneurs’ mobility in order to increase demand and aggregate output in the region. For being a competitive government, it must allocate its resources efficiently on the basis of preferences desired by local people. Such a condition is expected to influence towards local budget by decreasing public expenditure performed by government. As stated above, decentralization hypothesis based on leviathan theory does not always practically find its justification. Bahl and Linn (1994) state that overprovision condition of a(n) area/region/country before decentralization is may not occur in developing countries. Indonesian condition seems to justify the statement. The collected data of this research describe comparison between central and local conditions before decentralization:



As viewed in the above table, ratio between central government tax income and GDP during 2000-2003 periods was relatively undifferent with developing countries or other countries in transitional period. It indicates central government’s interventions higher than that desired by local people. In local level, ratio of local tax to GDP in Indonesia during 2000-2003 periods is only around 0.46%, while that in developing countries is around 2-18%. It indicates that local government’s interventions in economy are lower than that desired by local people. The researcher performs this calculation based on data presented by Sidik (2002) that local taxing ability in Indonesia for 2001 budget was 5.3% of total income consolidation recorded in APBN and APBD.



Since implementation of decentralization, local government has high discretion to manage its fiscal flows along with its function referral (see appendix 3). The change on fiscal management map is marked with the increase of local revenue sources that is independently determined by local government, in the form of PAD Genuine Local Income and Tax/Non-Tax Sharing from about 20% during 2001/2002 to be 96.7% since legalization of Law No. 25 of 1999. It is consistent with logic built by Bahl and Linn in order to provide public goods and services and generally justifies estimation that underprovision in developing countries is possible to occur as shown in Figure 1. Any demands to bemore competitive in decentralization era and underprovision condition cause local governments, in this case Indonesia, to be leviathan government. Thus, unavoidable H2 and H3 are practically justifiable in case of Indonesia decentralization. Next hypothesis is that central government and local government create collusive agreements through intergovernment transfer removing pressure to compete among governments that fiscal decentralization does not play a role as an obstacle to leviathan behavior. Theoretically, the results are explained in Wallis’ decentralization hypotheses stating that fiscal decentralization increase will increase public expenses in local and state levels, while federal expenditure will decrease.

In case it is related to offer and demand mechanism relating public goods and service supply, increase and decrease of government size are not influenced by fiscal decentralization only. Niskasen bureaucracy theory proposes that bureaucracy has any influences to increase government size by better informational benefit factor than local people of voters. Such a possibility can be explained as a reason of insignificant influence of fiscal decentralization towards government in Indonesia case. According to the researcher, statistic testing that rejects H1–although its regression coefficient of fiscal decentralization variable is consistent with decentralization hypothesis proposed by Brennan and Buchanan–showing high possibility that other variable(s) may be more dominant as determinants for government size. Possibility of other factor(s) influencing government size is stated in Partisan theory and Veto Players theory. Partisan theory hypothesizes that party composition in government is the main determiner for any variations in policy choices and policy outputs resulted by political processes inside the parties. Hibbs (1992) via Hage (2003) shortly states that parties act on certain substantial level ideologically by proposing policies responding interests and choices proposed by their main constituents. This theory is developed in context of majority democracy by using two-party system. Such a condition is not suitable for Indonesia. In context of no majority party as in Indonesia, relationship between ideological orientation and policy outputs are not clear. Thus, policy outputs are often coalition among partners or among government and its co-governing oppositions. In case public issues are parts of policy outputs made by government, political institution and coalition members must be potential variables influencing public outputs performed by government. Such an explanation gives, at least, another viewpoint that in Indonesian case, public outputs may be more influenced by political factors than fiscal decentralization itself.

Being further analyzed, fiscal decentralization in Indonesia is only in case of obligation caused by binding law forcing the central government to transfer some of its authorities to local governments. At the same time, local government are not ready to implement decentralization as theoretical concept that ideal condition desired by decentralization hypothesis proposed by Brennan and Buchanan are not reached yet by local governments. Test results showing fiscal decentralization influence is not statistically significant to the lower government size indicate that fiscal decentralization will give optimal benefits if three Smoke’s (2001) requirements are fulfilled. The first is existing clear locally politic mechanism to determine local people’s preferences and to make local government be responsible to its constituents. Second, local government must have institutional, technical, and managerial capacities to provide its constituent’s proposed services. Third, local government must have access to financial resources required to fulfill its responsibility. Thus, based on above theory, if government size represents efficiency, it is concluded that fiscal decentralization influence towards government size in aggregate level actually can not stand alone as a mutually exclusive factor.

Kwon (2002) presumes endogen relationship between two dependent variables of CENTRAL and LOCAL and independent variable that may indicate simultaneity among variables. Simultaneity that may occur by the increase of central expenses will increase total government expenditure causing decentralization ratio decrease. Or, local government increase may increase decentralization. Haustmant test is run to test simultaneity that may be influenced CENTRAL and LOCAL equation. Hausman test in appendix 11 shows that CENTRAL and LOCAL variables experience simultaneity problems. *Two-stage least square* (2SLS) method was employed as a method to improve the one equation regression. By 2SLS method testing, it shows that one equation regression model does not experience any coefficient changes after being corrected by 2SLS method. Detail results of 2SLS can be found in appendix 4.

***CONCLUSION***

Higher public sector growth (Rodden,2003) emerges a question on the effectiveness of government role in providing public services and an assumption about size decrease from public sector by giving more authorities to market and local jurisdiction. Fiscal decentralization is viewed as a mechanism controlling public sector growth and improving efficiency in public services (Zhang and Zou, 1998) by limiting leviathan behavior of local government. Brennan and Buchanan via Thieben (2003) explain that competition among different government levels will avoid any efforts maximizing revenue that government can concentrate to on its objectives instead of maximizing revenues by defending stability or, moreover, by lowering tax fee and creating public goods and service in limited revenue condition. Finally, fiscal decentralization may play a role to limit government size.

Borrowing Marlow (1988) model adopted by Kwon (2002), this research replicates it for Indonesian condition. The results show that governments in all levels (central and local) do not give statistically significant supports towards decentralization hypothesis proposed by Brennan and Buchanan. However, the coefficient of regression results shows negative relationship between decentralization and government size as expected by this research. In central and local government levels being analyzed separately, empirical testing shows statistically significant results that support the second hypothesis, i.e. higher decentralization creates smaller central government, and the third hypothesis of this research. However, the third hypothesis is actually not accordance with decentralization hypothesis based on leviathan theory though the statistical results are justified when referring to Wallis’ decentralization hypothesis (Garret andRhine, 2006). Results of this research support assumption that local government tends to conduct public expenses those are not based on its people’s needs. Consequently, decentralization is not able to be constitutional obstacle to make the government more efficient as assumed in Brennan and Buchanan’s decentralization hypothesis. Rationally, it is assumed that smaller government size can be regarded as a sign of efficiency in local government level that means people’s welfare will be created by itself through tax incentive mechanism related to any expenses for government’s obligation to provide public goods and services really required by them. Bigger government size when fiscal decentralization is higher will remove tax incentive required to trigger competition among government levels in order to create efficient expenses. Future researchers can be broadened by viewing relationship among government size and economic growth. It becomes important to determine that smaller government size has no meaning when it has no impact to economic growth and vice versa.

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1. 1According to list issued by AMS (American Mathematican Society) in 2006. See www.ams.org [↑](#footnote-ref-1)