

IS THE NEW INTERGOVERNMENTAL EQUALISATION GRANT IN INDONESIA EQUALISING?

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I. INTRODUCTION

The ‘big bang’ of decentralisation program in Indonesia commenced in the early 2000s. Initially, the decentralisation program had been implemented under the Law 22/1999 on Regional Government and the Law 25/1999 on Central and Local Fiscal Balance. Recently, the decentralisation program is being carried out under the Law 32/2004 and the Law 33/2004.

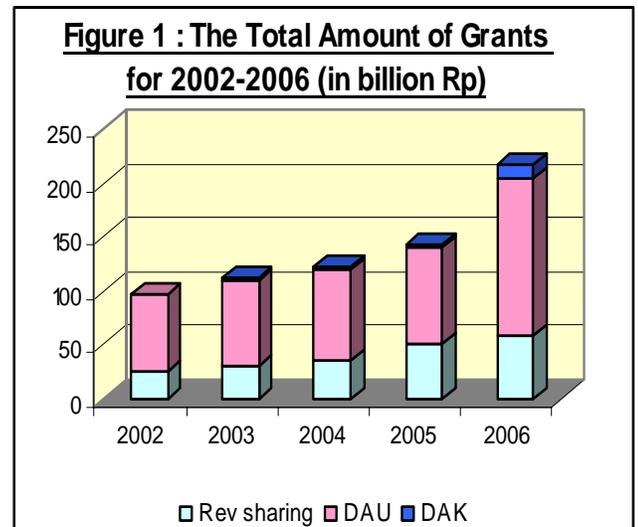
According to the new Laws, there are three principles employed in the fiscal decentralisation program: devolution, de-concentration, and co-administration task. To ensure local governments have sufficient funding, the country emphasises the principle of “money follows function”. In such way, the set of functions are assigned to local governments with an adequately designated own source revenues and intergovernmental transfers.

The Law 33/2004 has mandated three components of intergovernmental fiscal transfers: Revenue Sharing (from natural resources and taxes), General Purpose Grant (the so-called ‘Dana Alokasi Umum’ or DAU), and Specific Purpose Grant (the so-called ‘Dana Alokasi Khusus’ or DAK). These transfers are allocated in term of Balancing Fund Policy and allocated to sub-national governments in order to address the problem of

vertical imbalance between central and sub-national governments, and horizontal imbalances among sub-national governments.

The amount of intergovernmental grants in Indonesia has increased substantially over the years. Figure 1 illustrates the increase of total amount of grants during 2002 and 2006.

During that period, the average amount of revenue sharing is about 29 percent to total revenues from grants whereas DAU constitutes about 68 percent. DAU has contributed the highest portion in the total amount of revenue from grants. As for DAK, its contribution has not been significant in some regions and it has just been allocated since 2003. In average, contribution of DAK of the total revenues from grants is only 3 percent.



Source : Ministry of Finance (2002-2006)

In principle, General Purpose Grant (or DAU) is aimed to address the problem of horizontal imbalances among sub-national governments due to differences in regional fiscal capacities. Differences in fiscal capacities arise from differences in local own-source revenue and shared-revenue. Thus, DAU has been used as an instrument of equalisation grant, and the characteristic of the transfer is a block grant.

Nevertheless, whether the DAU allocation has achieved its objective as an instrument of equalisation grant is still puzzling. In addition, changes in the Law 33/2004 regarding DAU formula have somehow opened debatable discussion, particularly relating to the

application of “Basic-Amount Allocation” which is calculated based on local official’s salary.

Another issue that might be interesting in the upcoming years is the phasing out of Hold-Harmless provision. The hold-harmless provision is allocated to maintain all regions receive DAU in current year at least equal with the amount of DAU received in the previous year. The application of hold-harmless has benefited rich-regions which have reduced the essential means of DAU as an instrument of equalisation grant. Therefore, the phasing out of hold-harmless will be quite challenging.

With this regard, whether the new DAU will achieve horizontal balance across sub-national government needs evaluating. This paper tries to examine this issue from the fiscal capacity side by comparing the previous and current DAU allocations. The result is expected to answer whether the new DAU allocation is better (or worse) than the previous allocation.

II. INTERGOVERNMENTAL TRANSFERS IN INDONESIA: PREVIOUS AND CURRENT PRACTICE

The Law 33/2004 on Central and Local Fiscal Balance mandates revenue sources to sub-national levels from own-source revenues (taxes and user charges), intergovernmental transfers, borrowing mechanism, and other legitimate revenues (i.e. asset sales). The regulation on own-source revenue is then enacted in the Law on Regional Taxes and User Charges.

Intergovernmental fiscal transfers are aimed to reduce fiscal gap among tiers of government and between sub-national governments. The so-called 'Balance Fund' policy deploys in the form of: Revenue sharing, Specific Purpose Grant (DAK), and General Purpose Grant (DAU).

Revenue Sharing

Revenue sharing is allocated to sub-national governments in order to address the problems of imbalances between central and local governments. As in many countries, some major taxes remain at the central level, i.e. Personal Income Tax (PIT), VAT, and property tax. Until recently property tax is still administered at the central level. However, almost all the money obtained from property tax collection is allocated to local governments through revenue sharing.

The mechanism for revenue sharing derives from taxes and natural resources revenues based on derivation basis from the originating local governments. Revenue sharing from taxes comprises of sharing of revenue from property tax, property tax transfer fee, and PIT. As for the shared revenue from natural resources, it consists of shared revenues from forestry, mining, fishery, oil, and gas.

The Law 33/2004 has stipulated additional shared revenue from geo-thermal energy and re-forestation fund. The latter is formed as an earmarked grant for rehabilitating forests in originating local governments. Pressures during the drafting of the new law on Central and Local Fiscal Balance, particularly from rich-natural sources regions, has resulted such changes.

In addition, the new law also mandates additional percentage on the revenue sharing from oil and gas. According to this, sub-national governments will receive an additional 0.5 percent from oil and gas to fund expenses in education. Of this amount, 0.1 percent goes for provinces, 0.2 percent belongs to originating local governments, and the rest 0.2 percent is divided equally to all local governments in the same province.

Other than these two main changes, the other mechanism on revenue sharing remains the same with the previous scheme in law 25/1999. A more detail of revenue sharing percentage is suggested below:

Table 1. Percentage of Revenue Sharing Based on Law 25/1999 and Law 33/2004 (in percentage)

Revenue-shared sources	The Previous Law (Law 25/1999)					The Current Law (Law 33/2004)				
	CG	Prov	Originating LGs	Other LGs in same Prov	All LGs	CG	Prov	Originating LGs	Other LGs in same Prov	All LGs
PIT	80	8	12	-	-	80	8	12	-	-
Property tax	9	16.2	64.8	10	-	9 ^a	16.2	64.8	-	10 ^b
Land & building transfer fee	-	16	64	-	20	-	16	64	-	20
Forestry: <i>land-rent</i>	20	16	64	-	-	20	16	64	-	-
Forestry: <i>resource rent</i>	20	16	32	32	-	20	16	32	32	-
Forestry: <i>reforestation</i>	-	-	-	-	-	60	-	40 ^c	-	-
Mining: <i>Land-rent</i>	20	16	64	-	-	20	16	64	-	-
Mining: <i>Royalty</i>	20	16	32	32	-	20	16	32	32	-
Fishery	20	-	-	-	80	20	-	-	-	80
Oil	85	3	6	6	-	84.5	3 0.1 ^d	6 0.2 ^d	6 0.2 ^d	-
Gas	70	6	12	6	-	69.5	6 0.1 ^d	12 0.2 ^d	12 0.2 ^d	-
Geothermal	-	-	-	-	-	20	16	32	32	-

Source: Law 25/1999 and Law 33/2004

Notes:

- 9% of the revenue collected from property tax is defined as administration costs and distributed equally to all local governments
- 10% of the revenue collected from property tax is allocated to all local governments based on the actual property tax revenue collection at the current year. 6.5% is distributed to all local governments, and 3.5% is given as incentive to local governments which have revenues exceed the target of collection from the previous year.

- c. Revenue sharing from reforestation is an ear-marked grant to rehabilitate forests in originating local governments.
- d. 0.5% of the revenue sharing from oil and gas is allocated to Provinces and local governments as an additional fund for education (ear-marked grant).

With this arrangement, the central government had attempted to address the vertical imbalance between central and local government. However, the derivation basis employed in the revenue sharing mechanism means that the bulk of revenues are distributed to originating sub-national governments. Hence, this will create fiscal disparities among regions.

Specific Purpose Grant (DAK)

A conditional or earmarked transfer scheme, DAK, is allocated to specific regions and certain sectoral programs. DAK intends to ‘promote the attainment of minimum standards and compensate for benefit/cost spill-over related to priority capital investment’ (Sidik 2004,p.392). Hence, it is confined mainly to finance physical capital investment and limited-period financing of operational and maintenance needs.

The criteria for DAK are based on the general, special, and technical criteria. The general criteria should consider the financial capacity of the regions, while special criteria emphasise on the characteristic of the regions. Technical criteria are more specific and established by line ministries.

Conditional term attached in DAK lead to the limited scope of sub-national governments’ entitlement, particularly in the usage of funds (Brodjonegoro and Martinez-Vasquez, 2002). However, the ‘bottom up’ principle applies during the process of the DAK allocation. In this process local governments may propose programs and activities which are in line with the national priorities.

In principle, the mechanism for DAK has not significantly changed from the previous law 25/1999. The main change is the shift of DAK for re-forestation into the revenue sharing mechanism.

General Purpose Grant (DAU)

The DAU intends to address both problems of vertical and horizontal imbalance. Thus it is expected to equalise fiscal capacities across regions to finance public services (Sidik: 2004, Hofman et al: 2006).

Article 27 Law 33/2004 sets forth the total amount for DAU allocation at least 26 percent of net domestic revenues. This rule will be implemented in 2008. Hence, during the transition period the total amount of DAU is 25.5 percent of net domestic revenues. Previously the magnitude of DAU allocation based on the Law 25/1999 is 25 percent.

However, there are no clear reasons of such increase. Brodjonegoro (2005) points out that there is no proof whether local governments need more transfer or on the contrary might have surplus. Thus, one might assume that political compromises lay behind this on stipulation.

To allocate the portion for provinces and municipalities/cities, the law 25/1999 stated that 10 percent should go to provincial levels while 90 percent should belong to local governments. In the new law, the portion for provinces and municipalities is no longer stated inclusively. The new law only states that the portion for provinces and municipalities is determined by the proportion of responsibilities assigned to each tiers of government (article 29). Thus, the 10 and 90 percent is further arranged by the Government Regulation number 55/2005.

In principle, the main content of amendment of DAU in the law 33/2004 concerns the formula for “Fiscal Gap” and the “Basic-amount Allocation”. The Fiscal Gap formula is using the differences in expenditure needs and fiscal capacity. The main changes in the formula for fiscal gap between the previous system and the current system are the indicators for fiscal needs. As for the fiscal capacity, the indicators remain the same except for the weights for each indicator.

Previously, the law 25/1999 stated that the fiscal needs variables comprise of the factors of population, area, geographical condition, and income level which consider poverty. Thus, the proxies for these factors were the population index, area index, cost price index, and relative poverty index. In the law 33/2004, population, surface area, and cost price index remain in the formula, but relative poverty index is no longer included. New indicators in measuring the needs are the inverse of the Human Development Index (HDI) and the inverse of the Gross Regional Domestic Product (GRDP) per capita index.

From the fiscal capacity side, the calculation is based on local Own-Source Revenue (OSR) and revenue sharing. OSR is calculated based on the revenue raising capacity (potential revenues) while revenue sharing are shared revenues from tax and natural resources. These indicators are similar to that in the previous law. The treatment for fiscal capacity in the formula is not inclusive in the law but more like an arbitrary approach.

Moreover, a major breakthrough of DAU formula in the law 33/2004 is the elimination of hold-harmless provision in the beginning of year 2008. Historically, hold-harmless provision is to maintain all regions should receive DAU in current year at least equal with the amount of DAU received in the previous year. This has been part of the political

agreement between the parliament and the government during the stipulation of the DAU fiscal year 2002. The existence of hold-harmless provision in the DAU has certainly disrupted the performance of DAU to improve horizontal fiscal imbalance.

Although the hold-harmless provision would be eliminated in the DAU allocation by 2008, but the presence of basic-amount allocation seems like the second best approach (Brodjonegoro, 2005). He mentions that the first best approach should be the allocating pure formula without based-amount allocation.

The basic-amount allocation – in fact - is not something new. Previously, it was known as ‘balancing factor’ which comprises local officials’ salary. Historically, central government allocated conditional grants to local governments based on local officials’ salary. This had been called as ‘Subsidi Daerah Otonom (SDO)’. When the government employed new decentralisation laws, the SDO was eliminated. The balancing factor was somewhat replaced the historical SDO and was included in the formula of DAU.

The role of balancing factor is very dominant in the year 2001. In that year, 80 percent of the total amount of DAU went to such scheme and only 20 percent was calculated based on the fiscal gap formula. This was justified that sub-national governments should be able to finance their budget, particularly for paying local officials salary. Since the SDO is no longer existed –and very few OSR- then the portion of balancing factor was bigger than the formula of fiscal gap. However, over the years -with a gradual discretion and power over OSR- the portion of balancing factor has reduced.

Nevertheless, the presence of basic-amount allocation still undermines the objective towards equalisation and encourages local governments to employ more local officials.

From this standpoint, this paper assumes that the new DAU formula might not be any better at reducing the problem of horizontal imbalance than the previous DAU formula.

Based on the Law 33/2004, the basic formulation of fiscal gap formula is constructed as follow:

$$\begin{aligned}
 \text{Fiscal Gap (FG)} &= \text{Fiscal Needs (FN)} - \text{Fiscal Capacity (FC)} \dots\dots\dots 1 \\
 \text{FN} &= \text{ALE} (\alpha_1 \text{IP} + \alpha_2 \text{IAr} + \alpha_3 \text{CPI} + \alpha_4 \text{IHDI} + \alpha_5 \text{IGRDP per cap}) \dots\dots\dots 1.1 \\
 \text{FC} &= \text{OSR} + \text{RsNat} + \text{RsT} \dots\dots\dots 1.2
 \end{aligned}$$

Where ALE is the average total local budget expenditure, IP is population index, IAr is surface area index, CPI is construction price index, IHDI is inverse of HDI, IGRDP is inverse of GRDP per capita, OSR is own source revenues, RsNat is revenue sharing from natural resources, RsT is revenue sharing from taxes, and $\alpha_{1,2,\dots}$ is the coefficients which are distributed by using linear regression.

The amount of DAU is then calculated based on the weighted value for each region. Region_i will receive DAU based on the weighted value for region_i times with the total weighted for all regions. Meanwhile, the weighted value for region_i derives from dividing the fiscal gap for region_i with the total fiscal gap for all regions.

The equation is written as follow:

$$\begin{aligned}
 \text{DAU region}_i &= \text{weighted region}_i \times \text{weighted all regions} \dots\dots\dots 2 \\
 \text{weighted region}_i &= \frac{\text{fiscal gap region}_i}{\text{fiscal gap all regions}} \dots\dots\dots 2.1
 \end{aligned}$$

Lastly, basic-amount allocation is regarded as a lump sum grant which consists of the total wages of local civil servants. Thus, based on the formula developed from equation 1 until 2, the DAU formula for one region is then constructed as follows:

$$\text{DAU region}_i = \text{Fiscal Gap (FG)}_i + \text{Basic-Amount Allocation}_i \dots\dots\dots 3$$

As already mentioned, the hold-harmless provision should be eliminated by the year 2008. Thus, article 32 Law 33/2004 mandates three specific policies regarding the calculation on the fiscal gap formula that shall be implemented by 2008:

- If the result of formula fiscal gap for region_i is equal to zero, then region_i will receive DAU as equal as basic-amount allocation;
- If the result of formula fiscal gap for region_i is negative and the negative value is lesser than the basic-amount allocation, then region_i will receive DAU as equal as basic-amount allocation minus fiscal gap;
- If the result of formula fiscal gap for region_i is negative and the negative value is equal or higher than basic-amount allocation, then region_i will not receive the DAU

As for the new fragmented local governments, the DAU allocation for these regions is based on the proportion of population, area, and wages of local civil servants from the originating local government. Such regulation is stipulated in the government regulation.

III. MAIN CHALLENGES IN THE CURRENT DAU ALLOCATION

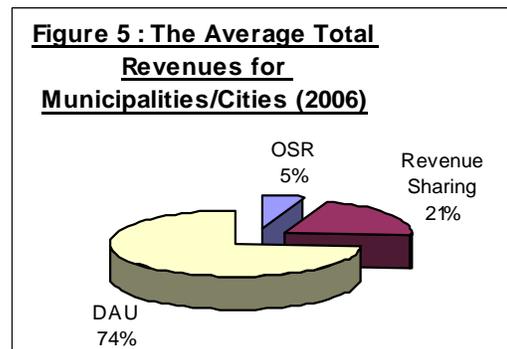
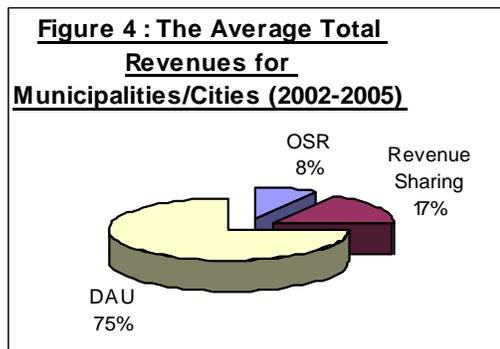
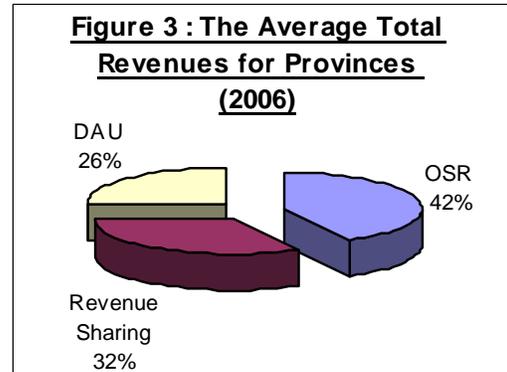
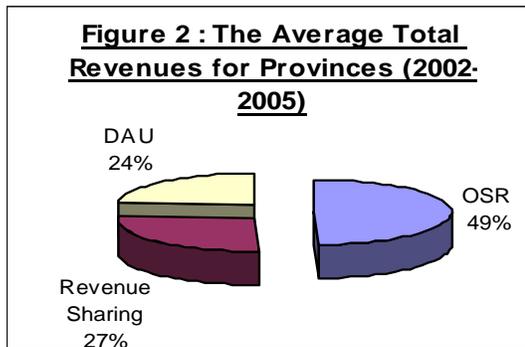
The challenge for the new DAU formula is whether the political situation will support the implementation of the phasing out of hold-harmless provision in 2008. Since the rich-natural resources will mostly lose or even receive no amount of DAU, the forthcoming political negotiations and compromises might still be in practice.

Another challenge is relating to the provision of data. In particular, it might be difficult to provide data on HDI and GRDP for all provinces and municipalities/cities. If the allocation is supposed to be elastic in terms of population growth, inflation, and the like, then the government should use the most recent data for each year. However, to obtain such data requires high costs and good information system within government institutions. With budget constraints and a historical lack of coordination among government institutions, this problem might be an obstacle in calculating the DAU allocation appropriately.

IV. ANALYSIS OF THE NEW EQUALISATION GRANT IN INDONESIA

The magnitude of DAU has increased over the years and has contributed as the main part of intergovernmental grants. From 2002 to 2005, DAU confirms at about 24 percent of total revenues at provincial level, whereas the portion is 75 percent of total revenues in municipalities/cities level. In 2006, the amount of DAU is 26 percent of total revenues in provinces and 74 percent in municipalities/cities. Over this amount, 10 percent goes to provinces and 90 percent distributes to municipalities/cities.

Figures 2 until 5 demonstrate the average portion of OSR, revenue sharing, and DAU to total revenues between 2002 and 2006.



Source: raw data is taken from MoF (2002-2006) with author's own calculation.

These figures show some crucial points related to the patterns of total revenues between provinces and municipalities/cities. Municipalities/cities rely heavily on the grants from central government, particularly from DAU. This might be due to the very insignificant portions of OSR.

Between 2002 and 2005, the average OSR to total revenues was 8 percent, and the percentage fell at 5 percent in 2006. Such decrease might be due to increasing on the estimated revenue sharing. In 2006, the contribution of the estimated revenue sharing to total revenues rises at about 21 percent. Previously the percentage of revenue sharing to

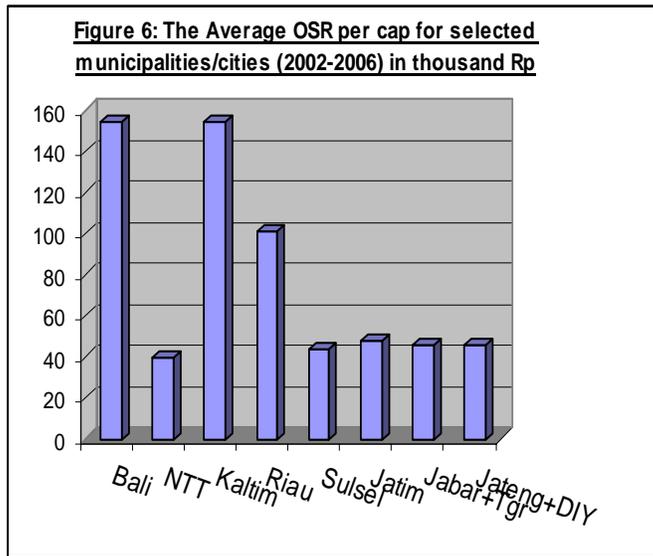
total revenues contributes about 17 percent between 2002 and 2005. Regarding the amount value, revenue sharing in 2006 is 49 percent higher than the amount in 2005. As for DAU, the amount value in 2006 is increased about 35 percent from the amount value in 2005. The increase in DAU is not as much as the increase in revenue sharing allocation. This condition creates larger horizontal imbalance among regions.

At provincial level, the OSR contributed considerable amount of the total revenues. During 2002 and 2006, the data suggest that own source revenue constitutes at more than 40 percent of total revenue sources. From this standpoint, the provinces are likely to having better revenue resources. Such condition might take place due to substantial taxing powers given to provincial level. Considerable tax bases, such as taxes on motor vehicle tax, are on the provincial side. Hence, municipalities/cities are left with narrow tax base, i.e. tax on restaurant, hotel, entertainment, and other local permitted charges. These taxes are not substantial in term of revenue collection.

In addition, the wide range of economic activities among localities makes the revenue-raising capacity varied among them. For instance, municipalities/cities in Province Bali, Riau, and Kalimantan Timur were able to raise OSR better than any other local governments due to the existence of taxes on tourism and mining activities. However, other local governments do not have such potential taxing capacities, i.e. in Nusa Tenggara Timur. These localities then rely heavily on the grants from central government.

Figure 6 shows the average amount of OSR per capita collected in some localities in the same provinces for the last five years. The figure depicts that the differences in revenue-

raising capacities among municipalities/cities are very large. Between 2002 and 2006, the



Source: raw data is taken from MoF (2002-2006) with author's own calculation

average OSR per capita in municipalities/cities within Province Bali, Kalimantan Timur, and Riau is 71 percent higher than in Nusa Tenggara Timur. If this amount compares to the rest of the selected municipalities/cities in Province Sulawesi Selatan, Jawa Timur, Jawa Barat, and

Jawa Tengah then the difference is about 68 percent.

Against this background, DAU is principally designed to address horizontal imbalance due to differences in revenue-raising capacities and revenue sharing allocation. However, the issue whether the DAU is really addressing the problem of horizontal imbalance amongst sub-national governments needs evaluating. This paper analyses the horizontal imbalance amongst sub-national governments particularly using coefficient of variation during the period 2002 to 2006.

Table 2.

Coefficient of Variation *Before* and *After* DAU per capita (2002-2006)

	2002	2003	2004	2005	2006
Total Revenues per capita before DAU per capita:					
- Province	0.23	0.21	0.21	0.19	0.24
- Municipalities/Cities	2.50	1.96	1.91	1.87	2.32

	2002	2003	2004	2005	2006
Total Revenues per capita after DAU per capita :					
- Province	0.21	0.20	0.20	0.18	0.22
- Municipalities/Cities	1.04	0.86	0.88	0.97	1.24

Source: raw data is taken from MoF (2002-2006) with author's own calculation

From the calculation on the coefficient of variation, there are at least two main points to make. First, in general, the value of the coefficient of variation before and after the DAU considers decreasing during 2002 to 2005. It implies that the grants have reduced the problem of horizontal imbalances.

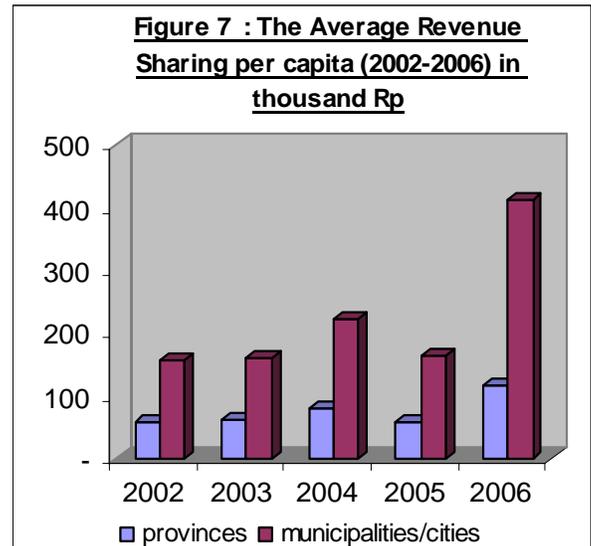
The value of coefficient of variation for municipalities/cities is much higher than the provinces, particularly before the DAU allocation. It means that the dispersion of revenues in municipalities/cities is more spread over a relatively larger range around the average level of revenues.

Such large variation should be associated with variation in revenue-raising capacity and revenue sharing allocation. After the DAU allocation, the value of coefficient of variation somewhat corrects the horizontal imbalance. In the case of municipalities the post-DAU allocation corrects the imbalance quite considerably. However, since the dispersion of revenues is substantially large, the DAU itself would not be able to achieve horizontal balance among localities.

Another reason is due to the historical hold-harmless policy. The presence of hold-harmless provision disrupts the objective towards equalisation since rich-natural resources regions obtained more amount of DAU than the amount should be. In such way, DAU is not performing optimally to reduce horizontal imbalance.

Second, the value of coefficient of variation in 2006 demonstrates that the implementation of new regulation in the law on Central and Local Fiscal Balance is increasing the dispersion of revenues both in provinces and municipalities/cities, although only marginally in the case of provinces.

Additional revenue sharing arrangement as regulated in the new law on Central and Local Fiscal Balance has accounted for this increase. From the estimated data on revenue sharing for 2006, the amount of revenue sharing per capita for provinces will increase at about 49 percent over the amount they received in 2005.

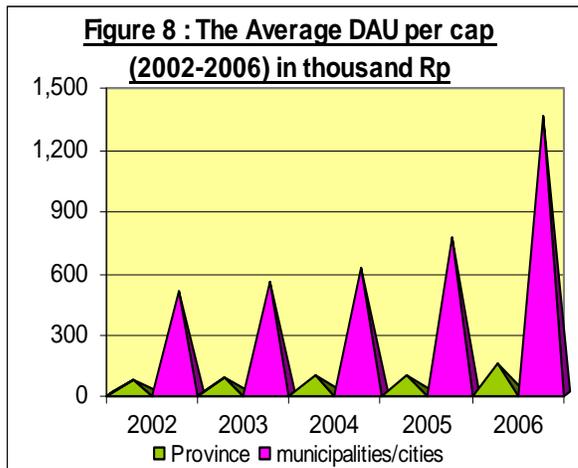


Source: raw data is taken from MoF (2002-2006) with author's own calculation

As for municipalities/cities, the amount of estimated revenue sharing per capita in 2006 will increase at about 60 percent. Figure 7 illustrates the progress on the revenue sharing per capita.

Having had this, the new DAU allocation in 2006 is supposed to minimise the horizontal imbalance due to the new revenue sharing allocation. From table 2, the value of coefficient of variation in 2006 confirms that the new DAU allocation has reduced the problem of imbalances. The data shows that there is a significant decrease in the value of coefficient variation in the municipalities/cities but only a slight decrease in the case of provinces. Such a slight decrease in provincial levels is due to insignificant portion of DAU to province levels which is only 10 percent of the total DAU. Hence, DAU could

not reduce the problem of horizontal imbalance significantly for provinces. The imbalance portion of DAU per capita between provinces and municipalities/cities is suggested in figure 8.



Source: raw data is taken from MoF (2002-2006) with author's own calculation

Nevertheless, this can be justified that provinces have already retained substantial revenues from OSR. Therefore, the value of coefficient of variation in the province levels is not as high as in municipalities/cities.

From the analysis data, one might conclude that the new DAU allocation formula might reduce the problem of vertical and horizontal imbalances. However, the very large - and increasing - dispersion of OSR and shared revenues particularly in municipalities/cities seems to undermine the process of accomplishment of the intra-local government equalisation through DAU.

Likewise, the hold-harmless policy which is still available in the 2006 allocation provides the evidence of the slow mode of DAU's role to address the imbalances issue. Moreover, the basic-amount factor included in the DAU allocation undermines the performance of a full equalisation process. As the basic-amount allocation accounts for 50 percent of the overall DAU allocation thus favours localities which for historical reasons - have large numbers of civil servants.

V. CONCLUSION

In general, this paper finds that the new DAU allocation in year 2006 reduces significantly horizontal imbalance in the case of municipalities/cities but hardly in provinces. A historical large discrepancy makes the job for DAU to achieve horizontal balance much tougher. Such discrepancy is due to revenue-raising ability and revenue sharing allocation.

However, the dispersion on revenue per capita in 2006 is higher than the dispersion on revenue during 2002 and 2005. The most recent regulation on revenue sharing mechanism might be the cause of such increase. In addition, the basic-amount allocation and the hold-harmless provision both undermine DAU as an instrument to address horizontal imbalance.

Political considerations are mostly advocated as the reason for such practice. On one hand, the revision in the revenue sharing mechanism must have contained negotiations among rich-natural resources regions, politicians, and government. On other hand, the basic-amount allocation and hold-harmless reflect negotiations by rich-natural resources to retain the same amount of DAU allocation. Hence, the intention to remove the hold-harmless provision by 2008 is very courageous and promising towards horizontal balance, if such clause will be implemented.

REFERENCES:

- Brodjonegoro, Bambang (2005) The Indonesian Decentralization After Law Revision: Toward a Better Future ?". Available online at <http://www.econ.hit-u.ac.jp/~kokyo/APPsympo04/PDF-papers-nov/Indonesianpaper.pdf>
- Brodjonegoro, Bambang and Martinez-Vazquez (2002) *An Analysis of Indonesia's Transfer System: Recent Performance and Future Prospects*. Working Paper 02-13, International Studies Program, Andrew Young School of Public Policy Studies, Georgia State University. Available online at <http://isp-aysps.gsu.edu/papers/ispwp0213.pdf>
- Law No. 22/1999 on Regional Governments. Available online at : http://www.ri.go.id/produk_uu/isi/produk_99/uu1999/uu22_99.htm
- Law No. 25/1999 on Central and Local Fiscal Balance. Available online at: http://www.ri.go.id/produk_uu/isi/produk_99/uu1999/uu25_99.htm
- Law No. 32/2004 on Regional Governance. Available online at : http://www.indonesia.go.id/produk_uu/produk2004/uu2004/uu32'04.htm
- Law No. 33/2004 on Central and Local Fiscal Balance. Available online at: http://www.indonesia.go.id/produk_uu/produk2004/uu2004/uu33'04.htm
- Murniasih, Erny (2006) *New Intergovernmental Equalisation Grant in Indonesia: A Panacea or A Plague for Achieving Horizontal Balance Across Regions*. University of Birmingham, International Development Department.
- Sidik, Mahfud (2004) "Indonesia's Imbalance Decentralization and Its Future Direction for a Greater Taxing Power to Sub-National Governments" in Heru Subiyantoro and Singgih Riphath (eds). *Kebijakan Fiskal: Pemikiran, Konsep, dan Implementasi* (Fiscal Policy: Opinion, Concept, and Implementation). Jakarta: Penerbit Buku Kompas