

## MATRIX INDEX OF INCOME VARIETIES OF INDONESIAN LABOR FORCE AND ITS APPLICATION IN INDONESIA

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### ABSTRACT

*Matrix Index of Income Varieties (MIVP) is an index, which is developed from the variety co efficiency and statistic  $\chi^2$  so that it will produce output totally as shown by Index of Williamson/Theil, as regionally as Index of Theil, sectorally as Index of Gini. Besides, Matrix Index of Income Varieties (MIIV) is able to identify which individual/sector/region influence the draw of income inequalities above or below the average. In application, MIIV will produce a maximal outcome if it is combined with Labor Force Productivity Index.*

*The outcome of MIIV/MIVP in Indonesia shows that the high-income inequalities in Indonesia are influenced by the contribution of regional economy, regional labor force contribution, the characteristic of regional economic sector, and regional potentials of each province.*

**Keywords:** *income distribution, total, region, sector, regional sector*

### INTRODUCTION

The efficiency and effectiveness of between-region economic performance, has become a very important issue in the study of spatial economic development. One of the crucial spatial economic developments is the income inequalities in region and in inter region that root from the problem of regional heterogeneity. But in solving such problem, often macro indicators that assume homogenous regional condition are used.

The mentioned macro indicators are representative to regional evaluation in general, as they are of average concept and the spreading aspect of social economy inside the region and inter regions. Even in the formula of the people's income distribution indicators, it is assumed that the spread of income inside a region and inter regions is homogenous. The unequal-

ity of income and people's distribution of income is always most likely to happen. Such problem takes place because of the heterogeneity of geographical position, potentials, and the level of productivity that take place in every region (Dumairy, 1999; dan Nurzaman, 1997).

Carlino (1992) and Browne (1989) in Esteban (1999) state that between-region inequality in the United States of America has something to do with the level of difference of labor. The between-region income inequalities take place because one or many of predominant regions give *backwash effect* or *polarization effect* towards the economic factors of the less developed regions. It finally results in the slow economic growth of other regions. To cope with the between-region income inequalities between the developing regions and the less developed regions, it is necessary to pass down regional development policy (Hirschman, 1968 in Nurzaman, 1997; Schinke,

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1998; Friedmann 1986 in Rukmana 1995). According to Hoover (1977) in general, the urban society's income per capita is higher than non-urban society, and this will continue this way until there is a serious handling. The research outcome of Hoch (1972) says that in United States the level of urban society's income per capita is influenced by the urban condition. The level of urban society's income per capita in the northern and western regions is higher than the southern region, but in the period 1929 -1962, the difference slowly and gradually became smaller.

The outcome of such thought and research is in line with the concept of *Generative Growth Theory* and *Competitive Growth Theory* (Budiharsono, 1988). *Generative Growth Theory* states that upon the country's steady economic development, many economic problems can be solved. In this case, some regions indeed will grow faster than other regions and if all regions enjoy the same quality of economic growth, the process of income distribution will keep continuing. In other words, the quality of the national economic growth in the less developed/retarded regions can be elevated. While *Competitive Growth Theory*; is based on the assumption that the national economic growth rate is determined by exogenous force, and seemed as it were divided in some regions. This situation takes place when the national economic growth rate is low, so the other regions will be victimized.

In some analysis to see the quality of between-region income spread, regional income per capita variable is always used, because such variable is relatively more easily obtained than other variables like economic sector's income per capita. More obviously, a discussion on the analysis instruments that are often used to measure the quality of between-region income distributions will be presented later.

Williamson's Index (WI), which was introduced by Jeffrey G. Williamson (1965), is an analysis instrument with which the quality of a total income distribution of the whole

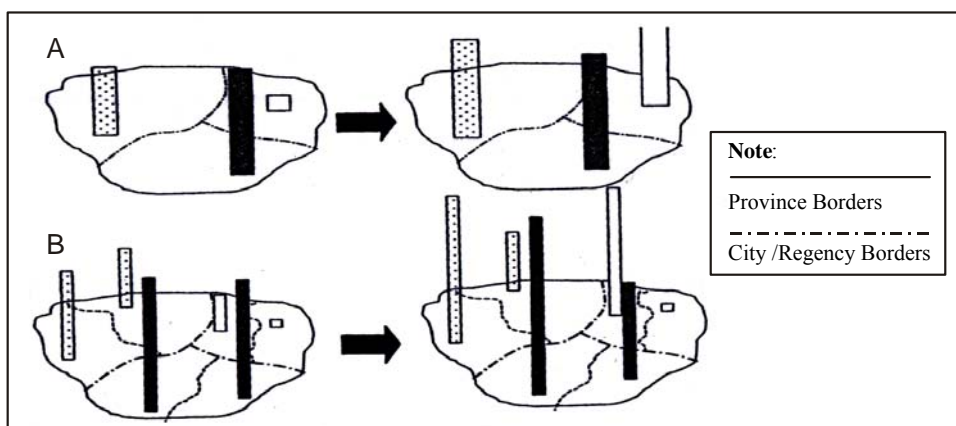
regions can be seen. Williamson proposed Vw (weighed index) and Vuw (outweighed index) to measure the level of inequality of a country's income per capita at a certain time. From the calculation, which he has conducted in many countries it can be seen that the between-region income inequality is inclined to show trend of an upside-down U. At the early development the degree of between-region income inequality increased, then stabilized and finally decreased again. In certain countries, the U form is not fully applicable and there were certain special variants. The WI value will also produce a different outcome if the region division experiences change such as upon the Regency or Province new division. Such phenomena are visualized in figure 1. According to Gore in Nurzaman (2002), the condition of development will be divergent if the city/regency division is like Figure 1A. Nevertheless, if a province is divided into more cities or regencies, the development will become convergent as shown in Figure 1B. In that figure, it is assumed that the labor productivity is spread evenly in every region of observation. This condition is certainly more caused by the use of data that assumes that the society's income in every region is homogeneous. While the fact shows that the society living in a region is classified into many economic sectors, and in every sector, the level of the labor productivity is very various<sup>2</sup>. At table 1, it is shown that Agricultural Sector, Commerce Sector, Hotel and Restaurant as well as Service sectors are the three major sectors in Indonesia wherein the lowest labor productivity level and the job opportunity are spread out

<sup>2</sup> The outcome of the observation by Canon (2008) in calculating the level of labor productivity in each regional sector using Labor Productivity Index:

$$y_{pi} = \frac{y_i/Y}{l_i/L}$$

Note:

$y_{pi}$  = IPTK of i sector in a certain time; Y= Total of output produced; L= Total of labor used ;  $y_i$  = Total of output i sector produced;  $l_i$  = Total i sector labor used.  $y_{pi} \geq 1$ : Productive Labor of i sector, and if  $y_{pi} < 1$ : Unproductive Labor of i sector.



Source: Nurzaman (2002)

**Figure 1.** The Inequality between Region and Different Regional Division

**Table 1.** The Development of Indonesian Labor Productivity Index

No	Index of Labor's Constant Price	2004	2006	2008	2010	Average
1	Mining and Drilling	10.33	6.03	9.13	9.24	8.50
2	Finance, Real Estate & Service Company	7.58	4.68	7.86	8.38	6.70
3	Electricity, Gas & Clean Water	5.84	3.56	5.94	6.19	5.11
4	Manufacturing Industry	2.15	1.32	2.15	2.16	1.87
5	Construction	1.15	0.74	1.27	1.40	1.05
6	Transportation and Communication	1.05	0.70	1.25	1.50	1.00
7	Hotel & Restaurant Commerce	1.06	0.68	1.16	1.26	0.97
8	Services	0.85	0.53	0.90	0.98	0.76
9	Agriculture, Husbandry, Forestry & Fishery	0.39	0.23	0.37	0.38	0.33

Source: BPS (2004-2010)

throughout all the regions. Besides, the three sector at the average (from 2004-2010) absorbed 53,86 % of a total labor force, but only produced a total output of 24,40% in economy.

On the other hand, the productive sectors are influenced much by the natural resource potentials and economic activity of the region like technology, education quality, and geographical position all of which are not spread/distributed evenly on the whole region of observation. Certainly if regional division takes place in a country or province, the productive sectors will not be distributed evenly throughout the whole regions, but will possibly move to the region of division or will re-

main in the main region. This occurrence will influence the change of William's variant Index value. That is why Nurzaman (2002) states that it must be thought for what purpose the Williamson Index analysis is carried out. If the regional division is not appropriate for the objectives of the study, it will give an absurd analysis outcome and surely will bear implication on the deviated conclusion and the target-missed policy. Mathematically, Williamson's Index value is derived from the coefficient variety as found in the Equation 1.

$$\sigma^2 = \frac{\sum_{i=1}^n (y_i - \bar{y})^2}{N} \quad (1)$$

Value that results from coefficient variety in the Equation 1 does not involve proportional coefficient in accordance with sub region, and Williamson modified it so that it turns into a weighed variant index as in the Equation 2.

$$WI = \frac{\sqrt{\sum_{i=1}^n (y_i - \bar{y})^2 \frac{p_i}{p}}}{\bar{y}} \quad (2)$$

Note :

- $y_i$  = Regional income per capita to i
- $\bar{y}$  = The whole regional income per capita
- $p_i$  = Regional population to i
- $p$  = The whole regional population

The other index model of income inequalities that gives bigger attention to the sub-regional aspect is Theil Index. This Index was proposed by econometrician Henry Theil (1967) from index entropy index. Entropy index (Equation 4) has similarity to Wilks Statistic or likelihood ratio that is stated in Equation 3. But the research outcome of Zhao

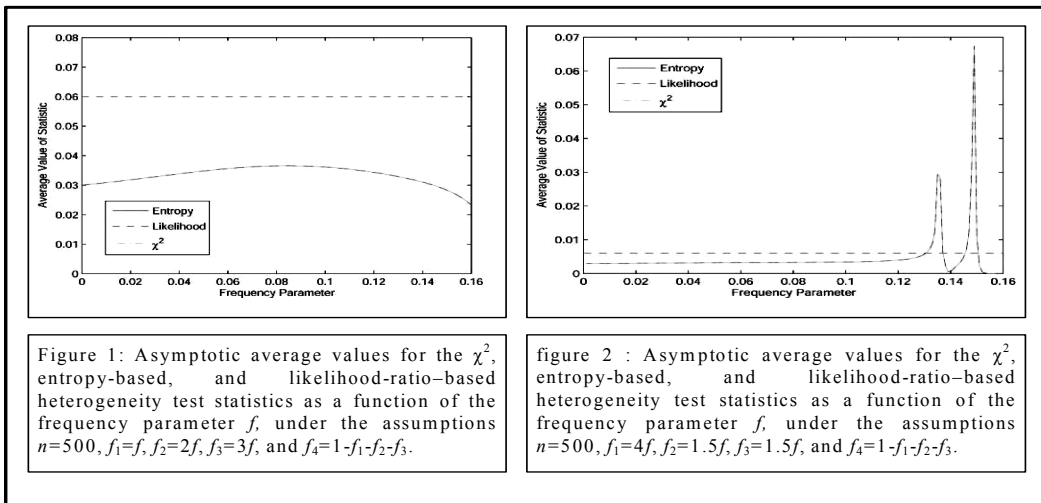
*et al.* (2006) shows that the level of type 1 error from heterogeneity test,  $\chi^2$  statistic, entropy statistic gives better result than likelihood ratio statistic. In details, the comparison among the heterogeneity test,  $\chi^2$  statistic, entropy statistic, and likelihood statistic has been experimented by Zhao *et al.* (2006) which is displayed at Figure 2. Based on that figure, it is seen that  $\chi^2$  statistic and entropy statistic have similar pattern, while on the contrary, likelihood statistic has different pattern than the other two.

$$G^2 = 2 \sum_j O_{ij} \ln \frac{O_{ij}}{E_{ij}} \quad (3)$$

Note:

- $O_{ij}$  = Cell observation value
- $E_{ij}$  = Cell expectation value

Based on the idea of entropy index, Theil developed a measurement instrument to calculate the inter-individual income inequality in a group and the inter-group income inequality (Equation 4).



Source: Zhao *et al.* (2006)

**Figure 2.** The Comparison of Heterogeneity among  $\chi^2$  Statistics, Entropy Statistics, and Likelihood Statistics

$$L_{Theil} = \sum_i \sum_j \frac{y_{ij}}{Y} \ln \left( \frac{y_{ij}}{Y} \right) / \left( \frac{p_{ij}}{p} \right) \quad (4)$$

Value at Equation 4 is divided into two sections i.e. inequality between regions (*between-region inequality*) and within region inequality (*within-region inequality*) as shown at Equation 5 and 6.

$$L_{Theil} = L_B + L_W \quad (5)$$

$$L_{Theil} = \sum_i \sum_j y_{ij} \ln \left( \frac{y_{ij}}{p_{ij}} \right) + \sum_i \sum_j \left( \frac{y_i}{Y_{ij}} \right) \ln \left( \frac{y_i}{Y_{ij}} \right) / \left( \frac{p_i}{p_{ij}} \right) \quad (6)$$

Note:

$y_{ij}$  = Income per capita of sub region i region j

$y$  = Income per capita of region j

$p_{ij}$  = Population of sub region i region j

$p$  = Population of region j

Theil's Index has some strong points compared to Williamson's Index. This index can calculate the income inequality between sub regions within region, the income inequality between regions, and the contribution of each region/sub region towards the whole income inequality. But Theil Index still uses the same form of data as Williamson's Index, that is, income per capita. Income per capita assumes that the quality of the society's income in every region/sub region of observation is homogenous. Such a problem can only be overcome by Gini Coefficient, which was developed by an Italian expert of statistic, i.e. Gini (1912). Gini Coefficient is statistic dispersion measurement towards the distribution of income group in a region. Gini Coefficient value in several countries ranges from 0,249 (in Japan) to 0,707 (in Namibia) (Wikipedia, 2010). The data shows that the quality of distribution of income of society groups in every country on this world is uneven. Based on that problem, it is necessary to

develop income distribution index that utilizes sectoral and regional data. In the dimension of regional size, such index can explain as much as Williamson and Theil Index, while in the dimension of sectoral size, it can explain as much as Gini Index.

To arbitrate such problem, it is necessary to develop a new index, so that it can explain the income inequality either regionally or sectorally. The new index is developed from Williamson (Equation 2) that is combined with  $\chi^2$  (Equation 5). In that index, variable  $(y_i - \bar{y})$  with one measurement dimension is replaced with  $(y_{ij} - ye_{ij})$  variable, which is a variable with two-dimensional measurement. In this case, the average value of population income of sub region is replaced with individual value of expectation.

Value  $y_{ij}$  is value of income per capita of region i sector j that replaces value  $y_i$  as regional income per capita. So does value  $ye_{ij}$  which is a value of expectation for each individuals in equation that replaces the average value of  $\bar{y}$ .

$$\chi^2 = \sum_{i=1}^m \sum_{j=1}^n \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \quad (5)$$

In Williamson Index every data, i.e. income per capita of sub region is subtracted with the income per capita of region  $(y_i - \bar{y})$ . Whereas in the new index every data i.e. income per capita of sub region is subtracted with the value of ideal expectation  $(y_{ij} - ye_{ij})$ . So is the ratio of population, where Williamson Index uses ratio between sub region and that of region  $(p_i/p)$ , whereas the new index is ratio between population of sub region sector and population of region  $(p_{ij}/p)$ . For variable  $\bar{y}$  in Williamson Index and new Index mentioned is equal. Equation 6 is the total value of index, and then from such equation it will be passed down some new equations in accordance with region, sector, and regional sector.

$$IC_{Total} = \frac{\sqrt{\sum_{i=1}^m \sum_{j=1}^n (y_{ij} - ye_{ij})^2 \frac{P_{ij}}{P}}}{\bar{y}} \quad (6)$$

Note:

$Y_{ij}$  = PDRB per capita of observation region i sector j

$Ye_{ij}$  = PDRB per capita of expectation region i sector j

$\bar{y}$  = PDRB per capita of the whole region

$P_{ij}$  = population of region i sector j

$P$  = population of the whole region

To find out the value of income inequality which comes above the average income (positive value) or below the average income (negative value), it is necessary to simplify

$\sqrt{\sum_{i=2}^m \sum_{j=1}^n (y_{ij} - ye_{ij})^2 \frac{P_{ij}}{P}}$  in Equation 6 into

$\sum_{i=1}^m \sum_{j=1}^n (y_{ij} - ye_{ij}) \sqrt{\frac{P_{ij}}{P}}$  as seen in Equation 7.

$$IC_{Total} = \frac{\sum_{i=1}^m \sum_{j=1}^n (y_{ij} - ye_{ij}) \sqrt{\frac{P_{ij}}{P}}}{\bar{y}} \quad (7)$$

Equation 6 and Equation 7, which are two similar equations, will bring about the same value, but bring about different plus/minus sign. The Equation 7 form will only bring about the total value, whereas in finding the total value in accordance with sector and region it is necessary to re-simplify Equation 8 (in accordance with region) and Equation 9 (in accordance with sector).

$$IC_{Region i} = \frac{\sum_{i=1}^m (y_{ij} - ye_{ij}) \sqrt{\frac{P_{ij}}{P}}}{\bar{y}} \quad (8)$$

$$IC_{Sector j} = \frac{\sum_{j=1}^n (y_{ij} - ye_{ij}) \sqrt{\frac{P_{ij}}{P}}}{\bar{y}} \quad (9)$$

To find out value of every cell that shows individual of region i sector j, it is necessary to re-simplify Equation 8 and Equation 9 into Equation 10.

$$IC_{Region i Sector j} = \frac{(y_{ij} - ye_{ij}) \sqrt{\frac{P_{ij}}{P}}}{\bar{y}} \quad (10)$$

Equation 10 produces unique values as value ICa in regional and sectoral sequence. Those values are as negative values that range from -1 to 0, or are as positive values that ranges from 0 to 1. If the value reaches 0, the regional sector will give lower influence toward the region inequality, and on the contrary, if the value reaches 1 or -1, the regional sector will play bigger role in influencing the inequality of regional income. Furthermore, if the index value of regional sector is positive, the income per capita of the regional sector is above the average income per capita of the region ( $y_{ij} > ye_{ij}$ ). And in contrast to that, if the value of regional sector's index is negative, the income per capita of regional sector is below the average income per capita of the region ( $y_{ij} < ye_{ij}$ ). A further detail of description of Matrix Index of Income Varieties (MIIV/ MIVP) is shown at Table 2.

Index Value can be added in line with the row that shows index value or in line with the column, which shows index value of sector j. The index value of region I and sector j explains how much the inequality value of each region and the column contribute. The value can be either an absolute addition or common addition, but both will bring about different interpretation. An absolute addition (C) explains how much region i and sector j play role in determining the existing inequality of income. Whereas a common addition explains how much region i and sector play role in giving influence toward the inequality of income through the income draw above the average (Ca-) or the income draw below the average (Ca-).

**Table 2.** The structure of Matrix Indoex of Income Varieties (MIIV/MIVP)

	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S...	S <sub>j</sub>	Region
W <sub>1</sub>	C <sub>11</sub>	C <sub>12</sub>	C <sub>13</sub>	C...	C <sub>1j</sub>	ΣC <sub>w1</sub>
W <sub>2</sub>	C <sub>21</sub>	C <sub>22</sub>	C <sub>23</sub>	C...	C <sub>2j</sub>	ΣC <sub>w2</sub>
W <sub>3</sub>	C <sub>31</sub>	C <sub>32</sub>	C <sub>33</sub>	C...	C <sub>3j</sub>	ΣC <sub>w3</sub>
W <sub>4</sub>	C...	C...	C...	C...	C...j	ΣC <sub>w...</sub>
W <sub>i</sub>	C <sub>i1</sub>	C <sub>i2</sub>	C <sub>i3</sub>	C <sub>i5</sub>		
					$C_{Region\ i\ Sector\ j} = \frac{\sqrt{(y_{ij} - ye_{ij})^2 \frac{p_{ij}}{p}}}{\bar{y}}$	$C_{Region\ i} = \frac{\sqrt{\sum_{i=1}^m (y_{ij} - ye_{ij})^2 \frac{p_{ij}}{p}}}{\bar{y}}$
					$Ca_{Region\ i\ Sector\ j} = \frac{(y_{ij} - ye_{ij}) \sqrt{\frac{p_{ij}}{p}}}{\bar{y}}$	$Ca_{Region\ i} = \frac{\sum_{i=1}^m (y_{ij} - ye_{ij}) \sqrt{\frac{p_{ij}}{p}}}{\bar{y}}$
Sector	ΣC <sub>s1</sub>	ΣC <sub>s2</sub>	ΣC <sub>s3</sub>	ΣC <sub>s...</sub>		
					$C_{Sector\ j} = \frac{\sqrt{\sum_{j=1}^n (y_{ij} - ye_{ij})^2 \frac{p_{ij}}{p}}}{\bar{y}}$	$C_{Total} = \frac{\sqrt{\sum_{i=2}^m \sum_{j=1}^n (y_{ij} - ye_{ij})^2 \frac{p_{ij}}{p}}}{\bar{y}}$
					$Ca_{Sector\ j} = \frac{\sum_{j=1}^n (y_{ij} - ye_{ij}) \sqrt{\frac{p_{ij}}{p}}}{\bar{y}}$	$Ca_{Total} = \frac{\sum_{i=1}^m \sum_{j=1}^n (y_{ij} - ye_{ij}) \sqrt{\frac{p_{ij}}{p}}}{\bar{y}}$

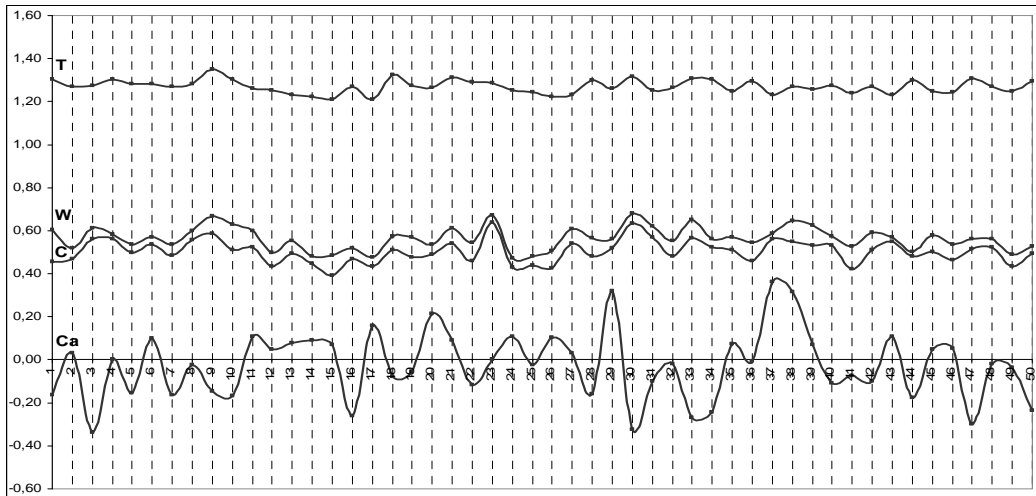
Subsequently, to make it more obvious in seeing the difference among Williamson Index, Theil Index, and MIIV/MIVP, a simulation of the total of output value of the three indexes. Whereas the data used in calculating the three indexes is taken randomly in fifty-time recurrence. Based on Figure 3, it is seen that value MIIV/MIVP (the average value C = 0,51 and Ca 7 = -0,02) is always lower than Williamson Index value (the average value IW=0,57). Thereafter, Williamson Index value always produces lower number than Theil Index (the average IT=1,27)<sup>3</sup>. Based on Figure 3 it is also seen that the movement pattern of curve of the three indexes is quite alike, but MIIV/MIVP output

is more alike with Williamson Index. This shows that although the average value of Williamson ( $\bar{y}$ ) is replaced with expectation value ( $ye_{ij}$ ) as in MIIV/MIVP, both remain to show almost the same output of performance.

Subsequently, value (C) at MIIV/MIVP has the same interpretation as Williamson and Theil Index, but Ca index at MIIV/MIVP has different interpretation. If C value is combined with Ca value, it will bring about a more detailed description toward the causes of inequality of income between regions. In more detail, such explanation is shown at Table 3.

Based on the description and the study outcome made in this paper, the comparison between Williamson Index, Theil Index, Gini Index and MIIV/MIVP is arranged. It is shown at Table 4.

<sup>3</sup> In several references, it is explained that the value of Williamson and Theil Index is between zero and one. But in several other studies like Nurzaman, the value of Williamson Index is bigger than one.



Note: W= Williamson Index, T= Theil Index, C=MIVP, Ca=MIVP +/-  
Source: Hypothetic Data.

**Figure 3.** The Spread of Williamson Index, Theil Index, and MIIV/MIVP, Using Three-digit Numbers in fifty-time Recurrence

**Table 3.** The Comparison between C value, with Ca +, Ca-

C \ Ca	Ca +	Ca -	Ca ≈ 0
C High	The high inequality caused by certain regional sector with the level of income per capita above the average. (experiment 36 and 37)	The high inequality caused by certain regional sector with the level of income per capita below the average. (experiment 29 and 46)	The high inequality, but regional sector with balanced high and low income per capita. (experiment 18 and 48)
C Low	The low inequality but some certain regional sectors are with the level of income per capita above the average. (Experiment 24 and 26)	The low inequality but some certain regional sectors are with the level of income per capita below the average. (Experiment 1 and 7)	The low inequality and regional sector with the level of balanced hing and low income per capita. (Experiment 32 and 49)

**Table 4.** The Comparison of Value between Williamson Index, Theil Index, Gini Index and MIIV/MIVP

	Williamson Index	Theil Index	Gini Index	MIIV/MIVP
The total index of region	√	√	-	√
Index between region and sub region	-	√	-	√
Index of sub region	-	√	-	√
The total index of sector	-	-	√	√
Index of regional sector	-	-	-	√
Index of regional sector above or below the average	-	-	-	√



**DATA**

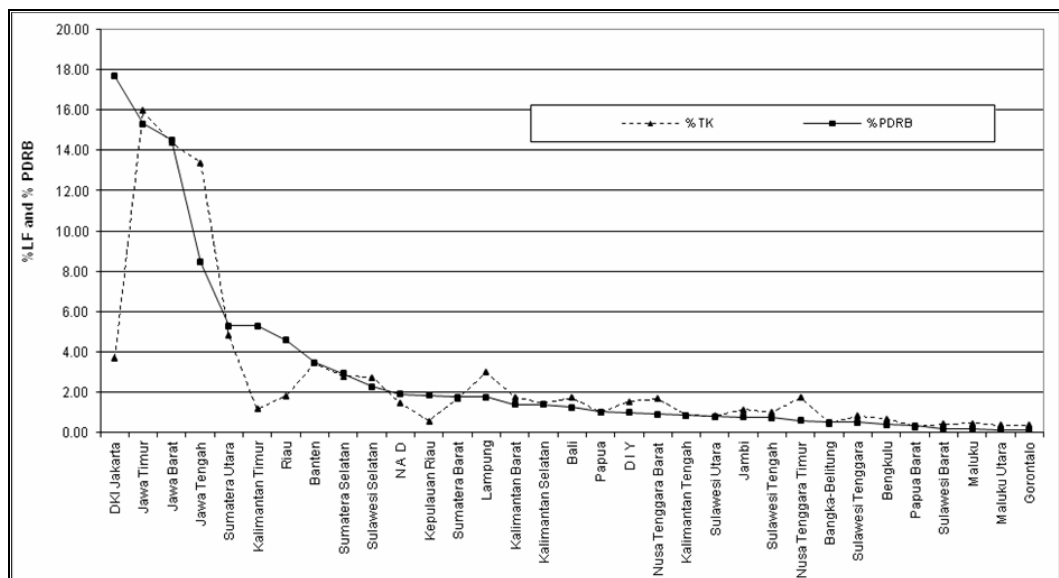
The data, which is used in this research, is a secondary data from BPS in the form of constant value of PDRB in the elementary year of 2000 and Labor Force. Those data are divided into 9 sectors and 33 provinces throughout Indonesia. While the period of years used are four years i.e. 2004, 2006, 2008 and 2010.

**DISCUSSION**

Economic Contribution (PDRB) and Labor Force (LF) from every province in Indonesia until very recently are not evenly spread out. Figure 4, which uses the average data in the year of 2004, 2006, 2008 and 2010, shows that economic contribution and labor force from several provinces across Indonesia can be divided into four major groups, that is: (i) A group, which consists of four provinces, i.e. Jakarta until Central Java, with economic contribution of 55.99% and LF of 47.43%. (ii) A group, which consists of 6 provinces, that is, North Sumatra province until South Sulawesi,

with economic contribution of 25,82% and LF of 16,69%. (iii) A group that consists of 8 provinces, namely NAD province until Papua with economic contribution of 12,26% and LF of 12,53. (iv) A group that consists of 15 provinces, namely DIY province until Gorontalo province with economic contribution of 7,93% and LF of 12,41%.

If looked carefully, the data description for the four groups of provinces shows an interesting condition, where there is a reversed correlation between the amount of province groups against the economic contribution and the labor force given. A group of few provinces gives a large economic contribution and a very large number of labor forces. In contrast, a group of many provinces even only gives small economic contribution and a small number of labor forces. On the other side, it is also seen that the quantity of labor forces (LF) in each province is diametrically equal to the quantity economic contribution (PDRB). The explanation shows that in general, the economic development in Indonesia is distributed



Source: calculated from BPS

**Figure 4.** The Average of Contribution Spread of PDRB and Labor Force throughout Provinces across Indonesia in Year 2004, 2006, 2008 and 2010

evenly and is still a compressed labor (*padat karya*)<sup>4</sup>. These problems certainly require a special attention considering that the major economic generator in Indonesia still occurs on the sector of Building Construction, and Hotel and Restaurant Commerce, while the sector of manufacturing industry is not maximally managed<sup>5</sup>. Despite the fact that Indonesia is famously rich of its primary sectors that surely, require manufacturing industry to promote its added economic value. However, because of the minimum amount of manufacturing industry of primary sector in Indonesia, raw material that derives from this sector is often used for export commodity. Of course, this will bring about the lost opportunity for the added economic value to elevate, and budge to other countries. Besides, the minimum number of manufacturing industry with raw material of agricultural products will bring about the impact of labor's moving from Agricultural sector to agricultural-raw-material based manufacturing industry sector. Whereas in fact, in industrial Sector, the labor's productivity is much better than that in agricultural sector. Therefore it is necessary to develop economic analysis on the production side to support the rapidly developed economic analysis on the consumption side, so that the national development program can run more efficiently and effectively in line with our expectation.

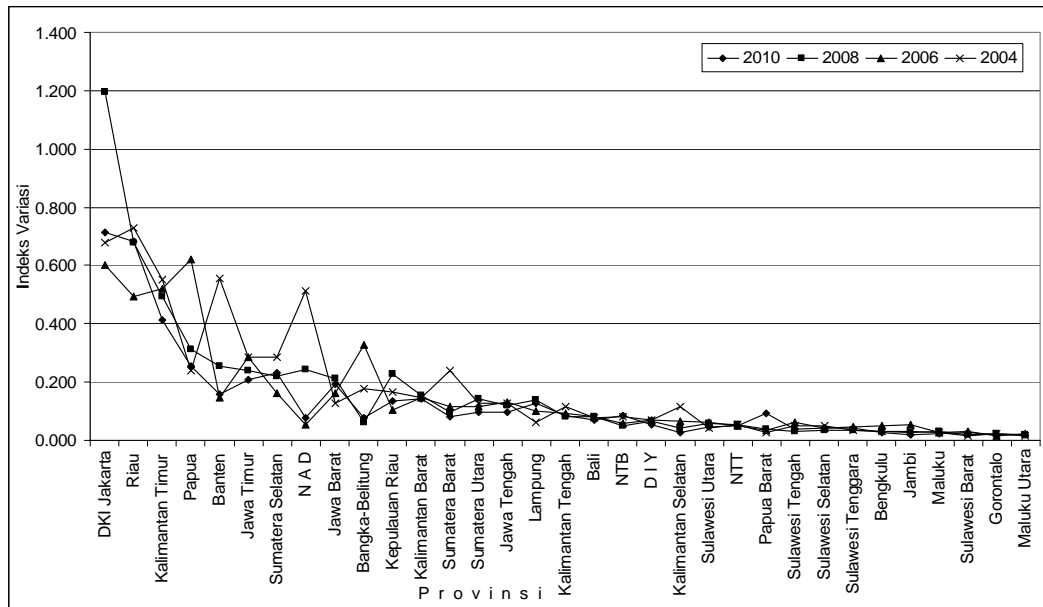
<sup>4</sup> Canon (2007) research outcome in North Sulawesi Province (now, North Sulawesi and Gorontalo Province) shows that the population increase of this Province in short term has negative influence, but in long term has a positive influence towards the economic development.

<sup>5</sup> Using sector analysis catalysis (Canon, 2010), the sequence of sector catalysis group in Indonesia is as follows: 1) four other combined sectors include Hotel and Restaurant Commerce Sector, Building and Construction Sector. 2) Two other combined sectors include Manufacturing Industry, Electricity, Gas and Clean Water Sector, Relation and Communication Sector, Rent and Service Finance Company, and Service Sector. 3) other null combined sectors include Agricultural Sector, and Mining and Drilling Sector.

To make a matured and effective-efficient planning, some analyses that can be used to evaluate and to serve as the stepping basis for making the future economic development program are importantly required. One of the analyses that can describe the labor's income varieties is the Matrix Index of Income Variety (MIIV/MIVP). MIIV/MIVP performs the index of the labor's income variety suited with the province, sectors and province sector. The outcome of MIIV/MIVP calculation combined with the Labor's Productivity Index (IPTK), is quite interesting to bring up in this paper.

The development of labor force MIIV/MIVP in provincial sequence in Indonesia for the period of 2004, 2006, 2008 and 2010 is quite various and very high. The total MIIV/MIVP of Indonesia is as follows: year 2004 as big as 1.53, year 2006 it dropped to 1.29, but in year 2008 increased to 1.64 and in year 2010 dropped again to 1,23. It is estimated that the increase of labor force's variety index in Indonesia in year 2008 resulted from the global crisis that also hampered Indonesia. Somehow the global crisis does not influence the inequality of labor's income in Indonesia for a long time, because in 2010, the value dropped again and even was lower than the previous years. Then, from MIIV/MIVP calculation in accordance with the province in Indonesia, it can be concluded as the following, that even though the value of variety index changes in that period, it does not change the pattern of variety index value that takes place.

This is proved through region-based MIIV/MIVP (Figure 5), which is sequenced along from the biggest value to the smallest one for several periods. The figure shows that at the sequence of provinces with the highest variety index, the variety index's drastic drop pattern occurs, anyhow at the sequence of provinces with medium and low positive variety index, the variety index's aquiline drop pattern takes place. Based on the above sequence, Jakarta province, Riau province and



Source: BPS (2004-2010)

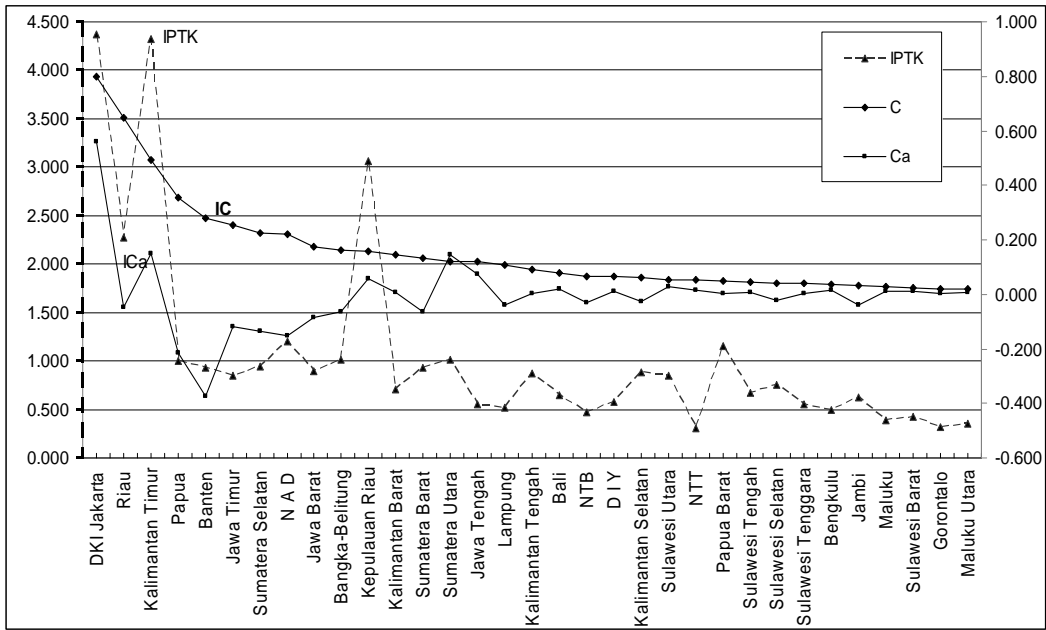
**Figure 5.** The Development of Matrix Index of Income Variety (MIIV/MIVP) of the whole Provinces in Indonesia in Year 2004, 2006, 2008, and 2010

East Kalimantan province give the largest contribution toward the inequality of labor force income in Indonesia. While provinces that are relatively less influential to the elevation of the inequality of income in Indonesia are West Sulawesi, Gorontalo and North Maluku. As referred by Figure 4 and 5, it can be seen that the amount of the positive variety index in provincial sequence has correlation with the amount of PDRB contribution towards Indonesian economy. In other words, the amount of the positive variety index that is contributed by a province is diametrically equal to the amount of percentage of PDRB and Labor Force.

On the other side of Figure 6 it is performed Positive Variety Index (IC), Positive/Negative Variety Index (ICa) and Labor's Productivity Index (IPTK) of the whole provinces in Indonesia taken from the average value in Year 2004, 2006, 2008 and 2010. The figure shows that a pattern trend, in which the

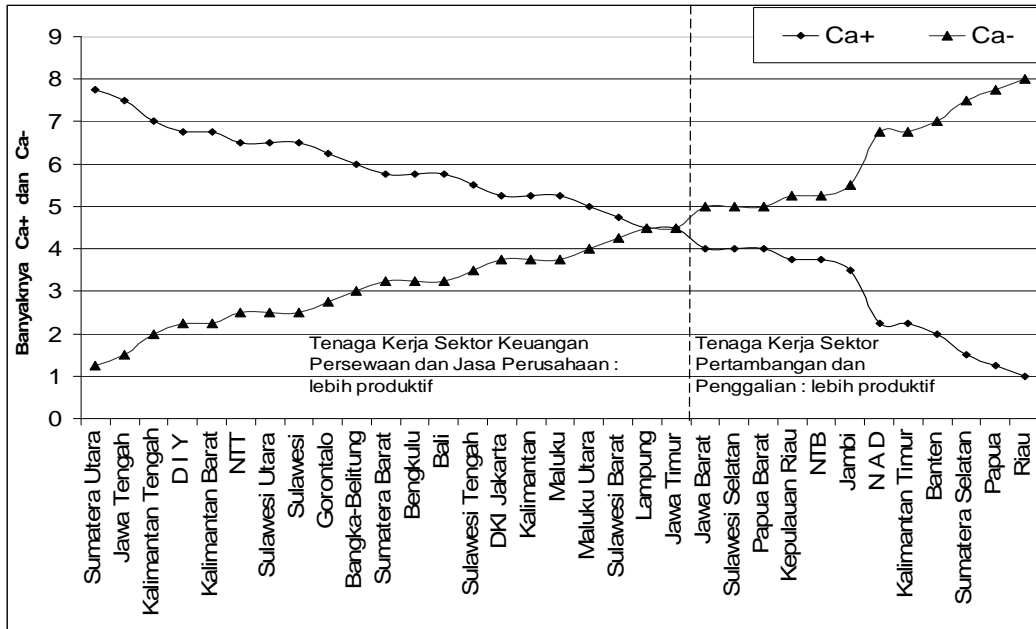
smaller the IC value, the less ICa value will fluctuate, whereas the bigger the IC value, the more the ICa value will fluctuate. Then, in provinces with high IC and positive ICa, it shows that high value of IC is caused by a quite big draw of income above the average, as what happens to Jakarta province, East Kalimantan, Riau Province and several other provinces. While provinces with high IC value and negative ICa value show that the IC value is caused by a quite big draw of income below the average, as what occurs in Papua province, Banten province, East Javanese province and several others.

Subsequently, at figure 7 the average sequence of province with highest ICa+ value to the lowest value is made, and on the contrary, province with the lowest ICa-value to the highest one. Both combination of ICa+ and ICa - are ranked, then individually, are correlated in the form of graphic line so that they form an X letter.



Source: BPS (2004-2010)

**Figure 6.** The Average of Positive Variety Index, Positive/Negative Variety Index, and Labor's Productivity Index of The Whole Provinces in Indonesia Year 2004, 2006, 2008, And 2010.



Source: BPS (2004-2010)

**Figure 7.** The Comparison between Ca+ and Ca – Average Values in Every Province.

That figure shows that most provinces with high IPTK (Labor's Productivity Index) in Mining and Drilling Sector predominate the right side position to letter "X", whereas provinces with the highest IPTK (Labor's Productivity Index) in Rent and Service Finance of Company predominate the left side position to the cross of letter "X". This finding shows that Mining and Drilling Sector gives influence on the increase of income inequality, on the other hand, Rent and Service Finance of Company belongs to the group of sector catalysis of Indonesia.

Figure 6 and Table 5 in general can explain that Jakarta province, East Kalimantan, and Riau province are provinces with the highest labor's productivity and the largest contribution toward the forming of the labor's income inequality in Indonesia. However, when seen within the region itself like in Jakarta province and East Kalimantan, the big income is mostly received by the middle class society and above, while in Riau province, the big income is received quite evenly. As well as the other three provinces, Riau province has the highest level of labor's productivity, but it only gives a small influence toward the forming of income inequality in Indonesia and the average income of the labor force within its region is relatively distributed evenly. In contrast with that, NAD province region gives a medium influence toward the labor's income inequality and a productive level of Labor's productivity. North Sumatra, Bangka Belitung, and Papua Barat provinces are the region with productive labor force (TK) with the contribution toward the Indonesian labor's income inequality level from the low to the very low level. Anyhow, when seen from the condition of labor force within the province itself, only North Sumatra province that has Labor's income level above the average, whereas Bangka Belitung province has a more evenly-distributed income.

Three groups of provinces that have almost productive labor force: The first group

consists of Papua, South Sumatra, Banten and East Java province. The second group consists of West Sumatra, West Java, West Kalimantan, Central Java, Lampung province. The third group comprises from South Kalimantan, Central Kalimantan, North Sulawesi, South Sulawesi, Central Sulawesi, Bali, Jambi, DIY, and Southeast Sulawesi province.

The first province group gives medium influence toward the forming of the level of labor's income inequality in Indonesia, and within its region, many labors earn income below the average. The second and the third province group only gives a very small influence toward the forming of income inequality in Indonesia, besides within each region of this province, the income of labor is relatively even.

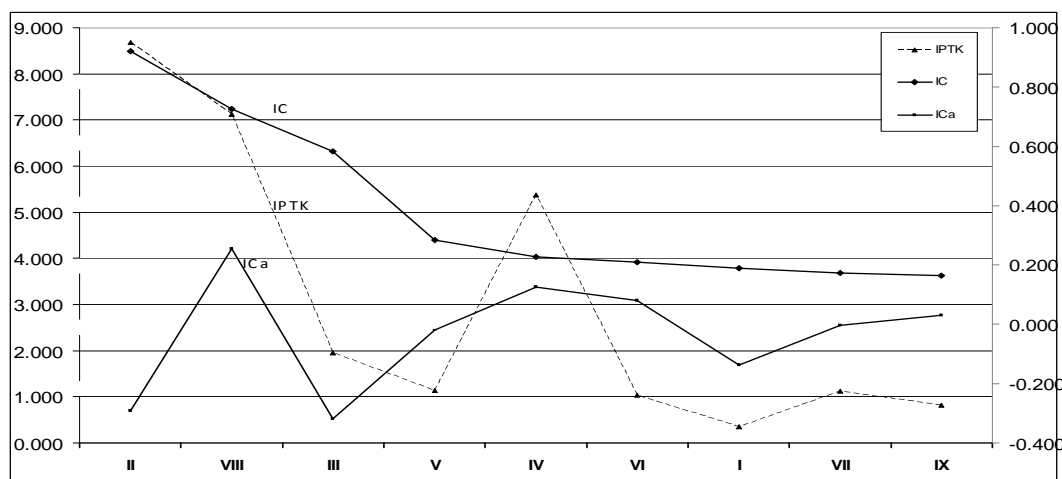
Last seven provinces which belong to the less productive group, namely, Bengkulu, NTB, West Sulawesi, Maluku, North Maluku, Gorontalo, and NTT. It seems that this province group also has two equivalent occurrences where their contribution toward the forming of labor's income inequality in Indonesia is very low, and the level of labor's income in its province is relatively even.

Using the same data, Figure 8 performs MIV/MIVP/ of labor in sectoral sequence. Figure 8 shows a trend that the smaller the IC value, the less ICa value will fluctuate, on the contrary, the bigger the IC value, the more the Ica value will fluctuate. Three sectors which hold the highest sequence of Labor's productivity namely, (i) Rent and Service Finance Sector, (ii) Mining and Drilling Sector, and (iii) Electricity, Gas and Clean Water Sector. The first and the second sector contribute most to the forming of the level of the labor's income inequality in Indonesia. On the other hand, when seen from the condition of the labor's income within each sector, the first and the third sector mostly have labors' income at the average to higher, while the second sector mostly have labors' income at the average to lower.

**Table 5.** The Comparison among Positive Variety Index, Positive/Negative and Labor's Productivity Index in Provincial Sequence

No	Wilayah	IC	ICa	IPTK/LPI	Explanation
1	DKI Jakarta, East Kalimantan	high	above	very productive	Contribution to the inequality of labor's income in Indonesia is high with the labor's income level above the average, with very high productivity level
2	Riau	high	evenly distributed	very productive	Contribution to the inequality of labor's income in Indonesia is high with labor's income relatively even with high labor's productivity.
3	N A D	medium	below	productive	Contribution to the inequality of labor's income in Indonesia is medium, with labor's income below the average, with high labor's productivity.
4	Papua, South Sumatra, Banten, East Java	medium	below	almost productive	Contribution to the inequality of labor's income in Indonesia is medium, with labor's income within province below the average, with high labor's productivity.
5	Riau Peninsula	low	evenly distributed	very productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income evenly distributed, with very high labor's productivity.
6	North Sumatra	low	above	productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within province evenly distributed, with high labor's productivity.
7	Bangka-Belitung	low	evenly distributed	productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within province evenly distributed, with high labor's productivity.
8	West Sumatra, West Java, West Kalimantan, Central Java, Lampung.	low	evenly distributed	almost productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within province evenly distributed, with less labor's productivity.
9	Papua Barat.	very low	evenly distributed	productive	Contribution to the inequality of labor's income in Indonesia is very low, with labor's income within province evenly distributed, with high labor's productivity.
10	South Kalimantan, Central Kalimantan, North Sulawesi, South Sulawesi, Central Sulawesi, Bali, Jambi, DIY, Southeast Sulawesi.	very low	evenly distributed	almost productive	Contribution to the inequality of labor's income in Indonesia is very low, with labor's income within province evenly distributed, with less labor's productivity.
11	Bengkulu, NTB, West Sulawesi, Maluku, North Maluku, Gorontalo, NTT.	very low	evenly distributed	less productive	Contribution to the inequality of labor's income in Indonesia is very low, with labor's income within province evenly distributed, with zero labor's productivity.

Source: BPS (2004-2010)



Source: BPS (2004-2010)

**Figure 8.** Positive Variety Index, Positive/Negative Variety Index and Labor's Productivity in Accordance with Average Sector, Year 2004, 2006, 2008, and 2010.

**Table 6.** The Comparison among IC, ICa and IPTK/LPI (Labor's Productivity Index) in Accordance with Economic Sector.

No	Economic Sector	IC	ICa	IPTK/ LPI	Explanation
1	- Rent and Service Finance of Company	high	above	very productive	Contribution to the inequality of labor's income in Indonesia is high, with labor's income within sectors above the average, with very high labor's productivity.
2	- Mining	high	below	very productive	Contribution to the inequality of labor's income in Indonesia is high, with labor's income within sectors below the average, with very high labor's productivity.
3	- Manufacturing Industry	high	below	productive	Contribution to the inequality of labor's income in Indonesia is high, with labor's income within sectors below the average, with high labor's productivity.
4	- Electricity, Gas and Clean Water	medium	above	very productive	Contribution to the inequality of labor's income in Indonesia is medium, with labor's income within sectors above the average, with very high labor's productivity.
5	- Building - Hotel and Restaurant Commerce	medium	evenly distributed	productive	Contribution to the inequality of labor's income in Indonesia is medium, with labor's income within sectors evenly distributed, with high labor's productivity.
6	- Relation and Communication	low	evenly distributed	productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within sectors evenly distributed, with high labor's productivity.
7	- Services	low	evenly distributed	almost productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within sectors evenly distributed, with less labor's productivity.
8	-Agriculture	low	evenly distributed	less productive	Contribution to the inequality of labor's income in Indonesia is low, with labor's income within sectors evenly distributed, with zero labor's productivity.

Sector that holds the position of productive labor is: (i) Manufacturing Industry Sector (ii) Building Sector, (iii) Hotel and Commerce Sector, and (iv) Relation and Communication Sector. The first sector gives the biggest contribution to the forming of the inequality of labor's income, whereas the second sector until the fourth sector gives a medium-to-low contribution to the forming of the inequality of labor's income in Indonesia. While sectors that belong to almost productive and less productive, are; (i) Service Sector and Agricultural Sector. Both sectors give the smallest contribution to the forming of inequality of income in Indonesia, besides the level of labor's income in both sectors is relatively distributed.

## CONCLUSIONS

1. The amount of percentage of economic contribution of the whole province in Indonesia is diametrically comparable with the percentage of labor force's contribution. For Jakarta, Kalimantan, Riau, East Kalimantan Province, the percentage of labor is smaller than that of economy and the three provinces give the biggest contribution to the total positive inequality index. For Central Java, Lampung, NTB (West Nusa Tenggara), and NTT (East Nusa Tenggara), the percentage of labor is bigger that of economy to the contribution of the total positive inequality index. It is low to the very low.
2. Based on the analysis outcome, basically, it can also be concluded that the amount of contribution to the total inequality index in each province is influenced by the amount of economic contribution of every economic sector. The same thing is also applicable where the amount of contribution of the economic sector is diametrically comparable to the amount of contribution to the positive inequality index.
3. The lower the contribution of a province to the total inequality index, the more evenly

the level of labor's income will be distributed within a province. On the contrary, the bigger the contribution to the total inequality indexes of a province, the more various the level of the labor's income within a province will be.

4. The more productive the condition of labor force within a province, the bigger contribution the province will give to the total income inequality index.
5. Sectors that play the most role in forming the inequality of income in Indonesia is sector of mining and drilling, and industry, while sectors that play less role in forming the inequality of income are sector of agriculture and service.
6. In provinces with relatively high labor's income index (IPTK) on mining and drilling sector will give impact on the elevation of the level of income inequality within its region. In contrast to that, provinces with relatively high labor's income index on Rent and Service Finance of Company will give impact on the decrease of income inequality within its region.

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## APPENDICES:

## Index C

	2010	I	II	III	IV	V	VI	VII	VIII	IX	Region
1	N A D	0.005	0.055	0.037	0.011	0.011	0.003	0.004	0.031	0.013	0.077
2	North Sumatra	0.018	0.071	0.027	0.010	0.006	0.008	0.021	0.050	0.010	0.096
3	West Sumatra	0.012	0.059	0.010	0.012	0.000	0.005	0.044	0.000	0.029	0.082
4	Riau	0.049	0.628	0.096	0.067	0.074	0.095	0.088	0.173	0.067	0.684
5	Jambi	0.004	0.001	0.005	0.004	0.009	0.005	0.008	0.004	0.008	0.018
6	South Sumatra	0.066	0.188	0.052	0.026	0.014	0.050	0.058	0.049	0.035	0.230
7	Bengkulu	0.008	0.010	0.017	0.000	0.005	0.007	0.007	0.009	0.012	0.028
8	Lampung	0.015	0.095	0.036	0.001	0.011	0.007	0.003	0.073	0.002	0.127
9	Bangka-Belitung	0.022	0.072	0.017	0.001	0.009	0.015	0.000	0.001	0.003	0.079
10	Riau Peninsula	0.021	0.019	0.105	0.009	0.005	0.035	0.020	0.065	0.029	0.136
11	DKI Jakarta	0.074	0.236	0.261	0.012	0.227	0.037	0.104	0.562	0.044	0.715
12	West Java	0.012	0.083	0.000	0.116	0.061	0.000	0.069	0.091	0.022	0.194
13	Central Java	0.025	0.081	0.006	0.027	0.010	0.029	0.007	0.003	0.025	0.098
14	D I Y	0.005	0.038	0.030	0.010	0.005	0.004	0.017	0.011	0.014	0.056
15	East Java	0.016	0.126	0.093	0.075	0.063	0.095	0.000	0.003	0.004	0.208
16	Banten	0.006	0.089	0.019	0.101	0.026	0.005	0.004	0.071	0.021	0.157
17	Bali	0.011	0.033	0.037	0.014	0.009	0.032	0.026	0.002	0.017	0.070
18	West Nusa Tenggara	0.007	0.055	0.060	0.009	0.002	0.008	0.010	0.003	0.002	0.083
19	East Nusa Tenggara	0.006	0.033	0.021	0.001	0.006	0.014	0.005	0.008	0.024	0.050
20	West Kalimantan	0.007	0.130	0.030	0.000	0.011	0.020	0.024	0.027	0.009	0.141
21	Central Kalimantan	0.012	0.077	0.009	0.000	0.002	0.012	0.010	0.026	0.012	0.085
22	South Kalimantan	0.016	0.008	0.015	0.001	0.002	0.002	0.014	0.002	0.002	0.028
23	East Kalimantan	0.036	0.270	0.261	0.046	0.052	0.058	0.026	0.119	0.076	0.414
24	North Sulawesi	0.006	0.028	0.013	0.000	0.030	0.006	0.012	0.008	0.012	0.048
25	Central Sulawesi	0.018	0.020	0.019	0.003	0.004	0.003	0.005	0.010	0.016	0.039
26	South Sulawesi	0.001	0.017	0.031	0.002	0.017	0.017	0.008	0.004	0.003	0.044
27	Southeast Sulawesi	0.007	0.033	0.014	0.001	0.008	0.005	0.002	0.016	0.003	0.041
28	Gorontalo	0.002	0.015	0.008	0.001	0.001	0.000	0.001	0.011	0.004	0.021
29	West Sulawesi	0.007	0.010	0.011	0.001	0.002	0.001	0.004	0.018	0.004	0.025
30	Maluku	0.004	0.011	0.006	0.002	0.003	0.013	0.005	0.009	0.008	0.023
31	North Maluku	0.004	0.012	0.007	0.003	0.003	0.012	0.001	0.005	0.000	0.020
32	West Papua	0.008	0.032	0.085	0.007	0.009	0.005	0.001	0.011	0.003	0.093
33	Papua	0.042	0.204	0.118	0.021	0.008	0.050	0.024	0.058	0.015	0.254
	Total	0.139	0.836	0.451	0.197	0.266	0.181	0.182	0.629	0.139	1.229

## Index Ca

	2010	I	II	III	IV	V	VI	VII	VIII	IX	Amount
1	N A D	0.005	0.055	-0.037	-0.011	-0.011	0.003	-0.004	-0.031	0.013	-0.018
2	North Sumatra	0.018	-0.071	0.027	0.010	0.006	0.008	0.021	0.050	0.010	0.078
3	West Sumatra	0.012	-0.059	-0.010	0.012	0.000	0.005	0.044	0.000	0.029	0.033
4	Riau	-0.049	0.628	-0.096	-0.067	-0.074	-0.095	-0.088	-0.173	-0.067	-0.082
5	Jambi	-0.004	-0.001	-0.005	0.004	-0.009	-0.005	-0.008	0.004	-0.008	-0.032
6	South Sumatra	-0.066	0.188	-0.052	-0.026	-0.014	-0.050	-0.058	-0.049	-0.035	-0.162
7	Bengkulu	0.008	-0.010	-0.017	0.000	-0.005	0.007	0.007	0.009	0.012	0.010
8	Lampung	0.015	-0.095	-0.036	-0.001	-0.011	-0.007	0.003	0.073	-0.002	-0.060
9	Bangka-Belitung	0.022	-0.072	0.017	0.001	0.009	0.015	0.000	-0.001	0.003	-0.006
10	Riau Peninsula	0.021	0.019	0.105	-0.009	0.005	0.035	-0.020	-0.065	-0.029	0.063
11	DKI Jakarta	-0.074	-0.236	-0.261	0.012	0.227	0.037	0.104	0.562	0.044	0.415
12	West Java	0.012	-0.083	0.000	0.116	-0.061	0.000	-0.069	-0.091	-0.022	-0.198

## Index Ca (continued)

	2010	I	II	III	IV	V	VI	VII	VIII	IX	Amount
13	Central Java	0.025	-0.081	0.006	0.027	-0.010	0.029	0.007	0.003	0.025	0.031
14	D I Y	0.005	-0.038	-0.030	0.010	0.005	0.004	0.017	0.011	0.014	-0.001
15	East Java	-0.016	-0.126	-0.093	0.075	-0.063	0.095	0.000	-0.003	0.004	-0.127
16	Banten	-0.006	-0.089	-0.019	0.101	-0.026	-0.005	-0.004	-0.071	-0.021	-0.139
17	Bali	0.011	-0.033	-0.037	0.014	-0.009	0.032	0.026	0.002	0.017	0.024
18	West Nusa Tenggara	-0.007	0.055	-0.060	-0.009	-0.002	-0.008	-0.010	0.003	-0.002	-0.039
19	East Nusa Tenggara	0.006	-0.033	-0.021	0.001	0.006	0.014	0.005	0.008	0.024	0.010
20	West Kalimantan	-0.007	-0.130	0.030	0.000	0.011	0.020	0.024	0.027	0.009	-0.015
21	Central Kalimantan	0.012	-0.077	-0.009	0.000	0.002	0.012	0.010	0.026	0.012	-0.013
22	South Kalimantan	0.016	-0.008	-0.015	0.001	0.002	-0.002	0.014	-0.002	0.002	0.007
23	East Kalimantan	-0.036	0.270	0.261	-0.046	-0.052	-0.058	-0.026	-0.119	-0.076	0.120
24	North Sulawesi	0.006	-0.028	-0.013	0.000	0.030	0.006	0.012	0.008	0.012	0.033
25	Central Sulawesi	0.018	-0.020	-0.019	0.003	0.004	-0.003	0.005	0.010	0.016	0.015
26	South Sulawesi	-0.001	0.017	-0.031	0.002	-0.017	-0.017	-0.008	0.004	0.003	-0.048
27	Southeast Sulawesi	0.007	-0.033	-0.014	0.001	0.008	0.005	0.002	0.016	0.003	-0.004
28	Gorontalo	0.002	-0.015	-0.008	0.001	0.001	0.000	0.001	0.011	0.004	-0.002
29	West Sulawesi	0.007	-0.010	-0.011	-0.001	-0.002	-0.001	-0.004	0.018	0.004	0.001
30	Maluku	0.004	-0.011	-0.006	-0.002	-0.003	0.013	0.005	0.009	0.008	0.017
31	North Maluku	0.004	-0.012	0.007	-0.003	-0.003	0.012	0.001	0.005	0.000	0.010
32	West Papua	-0.008	-0.032	0.085	-0.007	0.009	-0.005	-0.001	-0.011	-0.003	0.029
33	Papua	-0.042	0.204	-0.118	-0.021	-0.008	-0.050	-0.024	-0.058	-0.015	-0.131
	Total	-0.078	0.036	-0.479	0.187	-0.055	0.047	-0.013	0.184	-0.011	-0.182

## Sector's Productivity Index within Region

	2010	I	II	III	IV	V	VI	VII	VIII	IX
1	N A D	0.556	14.921	1.700	1.856	1.221	1.166	1.467	2.425	1.118
2	North Sumatra	0.502	2.242	2.745	4.123	1.381	0.937	1.657	6.314	0.794
3	West Sumatra	0.500	2.239	1.881	4.824	1.196	0.894	2.624	3.983	1.231
4	Riau	0.343	23.554	2.074	0.668	0.757	0.526	0.606	1.182	0.388
5	Jambi	0.527	9.938	3.204	6.371	1.256	1.137	1.450	7.215	0.687
6	South Sumatra	0.322	27.201	3.609	2.789	2.293	1.039	1.163	5.821	0.795
7	Bengkulu	0.650	4.375	0.781	3.296	0.739	1.315	2.093	6.992	1.509
8	Lampung	0.715	0.992	1.646	3.555	1.080	0.931	1.798	15.003	0.781
9	Bangka-Belitung	0.844	0.920	2.073	1.874	1.313	0.976	0.704	2.293	0.488
10	Riau Peninsula	0.560	4.686	2.397	1.178	0.841	0.804	0.452	1.091	0.109
11	DKI Jakarta	0.007	0.524	0.888	2.389	2.056	0.675	1.283	5.996	0.577
12	West Java	0.459	3.819	2.380	9.537	0.617	0.881	0.623	2.301	0.514
13	Central Java	0.506	1.368	1.973	5.540	0.875	0.993	1.188	3.663	0.873
14	D I Y	0.480	0.765	1.070	6.357	1.489	0.931	2.287	5.085	1.127
15	East Java	0.359	3.218	1.878	8.345	0.641	1.505	1.401	4.627	0.763
16	Banten	0.333	0.199	2.161	13.983	0.624	0.837	1.239	1.675	0.354
17	Bali	0.511	0.852	0.738	5.355	0.603	1.468	2.398	3.638	1.074
18	West Nusa Tenggara	0.437	16.569	0.498	1.718	1.757	0.974	1.287	6.992	0.920
19	East Nusa Tenggara	0.561	0.719	0.241	3.764	2.150	2.066	1.939	6.931	2.600
20	West Kalimantan	0.401	0.589	4.487	3.711	2.184	1.638	2.979	8.758	1.133
21	Central Kalimantan	0.569	2.265	1.800	2.982	1.363	1.199	1.823	7.490	1.054
22	South Kalimantan	0.568	5.466	1.532	2.874	1.199	0.713	1.700	3.610	0.629
23	East Kalimantan	0.184	8.349	4.373	0.836	0.597	0.426	0.836	1.621	0.125
24	North Sulawesi	0.459	3.341	1.475	2.806	2.472	0.950	1.606	4.596	0.929
25	Central Sulawesi	0.728	3.998	1.283	4.263	1.595	0.813	1.645	6.021	1.315
26	South Sulawesi	0.525	10.564	2.281	4.584	1.194	0.898	1.518	6.218	0.994

Sector's Productivity Index within Region (*continued*)

	2010	I	II	III	IV	V	VI	VII	VIII	IX
27	Southeast Sulawesi	0.593	2.911	1.490	3.637	2.095	1.194	1.524	8.065	0.890
28	Gorontalo	0.593	0.889	1.091	4.101	1.625	0.935	1.583	10.703	1.285
29	West Sulawesi	0.773	2.824	1.491	2.900	1.304	0.992	0.906	13.709	1.260
30	Maluku	0.541	0.949	0.958	1.294	0.447	2.140	1.950	7.982	1.393
31	North Maluku	0.589	2.234	4.076	0.888	0.425	2.430	1.285	6.806	0.574
32	West Papua	0.365	5.521	9.775	1.774	2.306	0.884	1.586	3.479	0.717
33	Papua	0.289	37.249	0.362	1.370	2.519	0.516	1.702	3.510	1.036
	Total	0.382	9.239	2.162	6.187	1.400	1.255	1.496	8.382	0.979

## Region's Productivity Index in a Sector

	2010	I	II	III	IV	V	VI	VII	VIII	IX	Wil
1	N A D	1.327	1.474	0.718	0.274	0.796	0.848	0.895	0.264	1.043	0.913
2	North Sumatra	1.245	0.230	1.206	0.633	0.937	0.709	1.052	0.715	0.770	0.949
3	West Sumatra	1.221	0.226	0.812	0.728	0.797	0.664	1.637	0.443	1.174	0.933
4	Riau	1.978	5.626	2.116	0.238	1.193	0.924	0.894	0.311	0.875	2.207
5	Jambi	0.807	0.630	0.867	0.603	0.525	0.530	0.567	0.504	0.411	0.585
6	South Sumatra	0.769	2.689	1.524	0.412	1.496	0.756	0.710	0.634	0.742	0.913
7	Bengkulu	0.851	0.237	0.181	0.267	0.264	0.525	0.701	0.418	0.772	0.501
8	Lampung	0.939	0.054	0.382	0.289	0.388	0.373	0.604	0.899	0.401	0.502
9	Bangka-Belitung	2.009	0.091	0.873	0.276	0.854	0.708	0.429	0.249	0.454	0.910
10	Riau Peninsula	3.833	1.327	2.901	0.498	1.572	1.675	0.791	0.341	0.290	2.617
11	DKI Jakarta	0.078	0.234	1.699	1.597	6.075	2.223	3.547	2.959	2.440	4.136
12	West Java	1.118	0.385	1.025	1.436	0.411	0.654	0.388	0.256	0.489	0.931
13	Central Java	0.766	0.086	0.529	0.519	0.362	0.459	0.461	0.253	0.517	0.580
14	D I Y	0.729	0.048	0.287	0.597	0.618	0.431	0.889	0.353	0.669	0.581
15	East Java	0.841	0.313	0.779	1.210	0.411	1.076	0.840	0.495	0.700	0.897
16	Banten	0.711	0.018	0.816	1.845	0.364	0.544	0.676	0.163	0.295	0.816
17	Bali	0.835	0.058	0.213	0.541	0.269	0.731	1.002	0.271	0.686	0.625
18	West Nusa Tenggara	0.526	0.827	0.106	0.128	0.578	0.358	0.397	0.384	0.434	0.461
19	East Nusa Tenggara	0.437	0.023	0.033	0.181	0.458	0.490	0.386	0.246	0.792	0.298
20	West Kalimantan	0.743	0.045	1.470	0.425	1.105	0.925	1.411	0.740	0.820	0.709
21	Central Kalimantan	1.340	0.221	0.750	0.434	0.877	0.860	1.098	0.805	0.970	0.901
22	South Kalimantan	1.280	0.510	0.611	0.401	0.739	0.490	0.980	0.371	0.554	0.862
23	East Kalimantan	1.761	3.306	7.398	0.494	1.560	1.243	2.045	0.707	0.466	3.658
24	North Sulawesi	1.152	0.348	0.656	0.436	1.697	0.727	1.031	0.527	0.912	0.961
25	Central Sulawesi	1.370	0.311	0.427	0.496	0.820	0.466	0.791	0.517	0.967	0.720
26	South Sulawesi	1.052	0.877	0.809	0.568	0.654	0.549	0.778	0.569	0.779	0.767
27	Southeast Sulawesi	0.884	0.180	0.393	0.335	0.854	0.543	0.581	0.549	0.519	0.571
28	Gorontalo	0.513	0.032	0.167	0.219	0.384	0.246	0.350	0.422	0.434	0.330
29	West Sulawesi	0.913	0.138	0.311	0.212	0.421	0.357	0.274	0.739	0.582	0.452
30	Maluku	0.502	0.037	0.157	0.074	0.113	0.606	0.463	0.338	0.506	0.355
31	North Maluku	0.557	0.087	0.682	0.052	0.110	0.700	0.311	0.294	0.212	0.362
32	West Papua	1.284	0.804	6.080	0.386	2.216	0.947	1.426	0.558	0.985	1.345
33	Papua	0.576	3.069	0.128	0.169	1.370	0.313	0.866	0.319	0.806	0.761

## Index C

2008	I	II	III	IV	V	VI	VII	VIII	IX	Region
1 N A D	0.050	0.171	0.112	0.029	0.041	0.044	0.035	0.095	0.004	0.243
2 North Sumatra	0.010	0.099	0.076	0.010	0.020	0.025	0.031	0.043	0.015	0.141
3 West Sumatra	0.006	0.076	0.004	0.010	0.003	0.016	0.048	0.006	0.032	0.098
4 Riau	0.098	0.628	0.085	0.052	0.073	0.094	0.084	0.153	0.071	0.680
5 Jambi	0.018	0.009	0.012	0.002	0.009	0.006	0.006	0.003	0.007	0.028
6 South Sumatra	0.092	0.176	0.024	0.032	0.003	0.031	0.041	0.054	0.033	0.219
7 Bengkulu	0.006	0.013	0.020	0.001	0.004	0.006	0.009	0.009	0.014	0.032
8 Lampung	0.020	0.123	0.010	0.001	0.001	0.007	0.009	0.055	0.004	0.137
9 Bangka-Belitung	0.027	0.047	0.013	0.002	0.011	0.019	0.000	0.001	0.004	0.060
10 Riau Peninsula	0.059	0.037	0.122	0.011	0.009	0.002	0.033	0.167	0.051	0.227
11 DKI Jakarta	0.175	0.415	0.373	0.017	0.174	0.040	0.052	1.025	0.055	1.197
12 West Java	0.019	0.121	0.092	0.108	0.053	0.009	0.040	0.070	0.009	0.211
13 Central Java	0.021	0.098	0.026	0.026	0.003	0.040	0.015	0.004	0.031	0.120
14 D I Y	0.003	0.046	0.028	0.008	0.010	0.006	0.016	0.026	0.017	0.065
15 East Java	0.032	0.161	0.074	0.099	0.050	0.107	0.004	0.019	0.003	0.238
16 Banten	0.038	0.156	0.032	0.143	0.047	0.025	0.015	0.118	0.037	0.256
17 Bali	0.005	0.054	0.030	0.015	0.005	0.037	0.027	0.010	0.018	0.082
18 West Nusa Tenggara	0.013	0.018	0.044	0.002	0.004	0.002	0.001	0.005	0.002	0.050
19 East Nusa Tenggara	0.004	0.040	0.018	0.001	0.006	0.012	0.008	0.009	0.023	0.052
20 West Kalimantan	0.009	0.140	0.045	0.000	0.016	0.033	0.020	0.022	0.013	0.155
21 Central Kalimantan	0.018	0.072	0.008	0.001	0.006	0.011	0.017	0.018	0.015	0.081
22 South Kalimantan	0.015	0.033	0.002	0.002	0.006	0.005	0.021	0.004	0.005	0.042
23 East Kalimantan	0.064	0.289	0.341	0.061	0.057	0.053	0.036	0.151	0.080	0.494
24 North Sulawesi	0.012	0.040	0.013	0.006	0.034	0.000	0.012	0.008	0.008	0.058
25 Central Sulawesi	0.017	0.006	0.017	0.000	0.004	0.001	0.006	0.004	0.019	0.032
26 South Sulawesi	0.007	0.027	0.003	0.010	0.006	0.006	0.000	0.003	0.011	0.033
27 Southeast Sulawesi	0.005	0.024	0.013	0.000	0.006	0.004	0.001	0.017	0.006	0.034
28 Gorontalo	0.001	0.017	0.007	0.000	0.002	0.000	0.004	0.013	0.005	0.023
29 West Sulawesi	0.008	0.008	0.004	0.001	0.001	0.003	0.002	0.012	0.007	0.018
30 Maluku	0.002	0.020	0.002	0.003	0.004	0.014	0.005	0.013	0.008	0.030
31 North Maluku	0.003	0.014	0.006	0.000	0.003	0.010	0.002	0.003	0.001	0.019
32 West Papua	0.017	0.003	0.027	0.006	0.018	0.000	0.003	0.011	0.003	0.039
33 Papua	0.041	0.239	0.154	0.027	0.025	0.063	0.028	0.088	0.029	0.312
Total	0.259	0.955	0.587	0.230	0.228	0.196	0.154	1.083	0.159	1.640

## Index Ca

2008	I	II	III	IV	V	VI	VII	VIII	IX	Amount
1 N A D	-0.050	0.171	-0.112	-0.029	-0.041	-0.044	-0.035	-0.095	-0.004	-0.240
2 North Sumatra	0.010	-0.099	0.076	0.010	0.020	0.025	0.031	0.043	0.015	0.132
3 West Sumatra	0.006	-0.076	0.004	0.010	0.003	0.016	0.048	0.006	0.032	0.050
4 Riau	-0.098	0.628	-0.085	-0.052	-0.073	-0.094	-0.084	-0.153	-0.071	-0.082
5 Jambi	-0.018	0.009	-0.012	0.002	-0.009	-0.006	-0.006	0.003	-0.007	-0.044
6 South Sumatra	-0.092	0.176	-0.024	-0.032	-0.003	-0.031	-0.041	-0.054	-0.033	-0.135
7 Bengkulu	0.006	-0.013	-0.020	0.001	-0.004	0.006	0.009	0.009	0.014	0.008
8 Lampung	0.020	-0.123	-0.010	-0.001	-0.001	0.007	0.009	0.055	0.004	-0.039
9 Bangka-Belitung	0.027	-0.047	0.013	-0.002	0.011	0.019	0.000	-0.001	0.004	0.024
10 Riau Peninsula	0.059	0.037	0.122	-0.011	-0.009	-0.002	-0.033	-0.167	-0.051	-0.057
11 DKI Jakarta	-0.175	-0.415	-0.373	-0.017	0.174	0.040	0.052	1.025	0.055	0.366
12 West Java	-0.019	-0.121	0.092	0.108	-0.053	0.009	-0.040	-0.070	-0.009	-0.100
13 Central Java	0.021	-0.098	0.026	0.026	-0.003	0.040	0.015	0.004	0.031	0.063
14 D I Y	-0.003	-0.046	-0.028	0.008	0.010	0.006	0.016	0.026	0.017	0.005

## Index Ca (continued)

2008	I	II	III	IV	V	VI	VII	VIII	IX	Amount
15 East Java	-0.032	-0.161	-0.074	0.099	-0.050	0.107	-0.004	-0.019	0.003	-0.131
16 Banten	-0.038	-0.156	-0.032	0.143	-0.047	-0.025	-0.015	-0.118	-0.037	-0.325
17 Bali	0.005	-0.054	-0.030	0.015	-0.005	0.037	0.027	0.010	0.018	0.023
18 West Nusa Tenggara	-0.013	0.018	-0.044	-0.002	0.004	0.002	-0.001	0.005	0.002	-0.029
19 East Nusa Tenggara	0.004	-0.040	-0.018	0.001	0.006	0.012	0.008	0.009	0.023	0.007
20 West Kalimantan	-0.009	-0.140	0.045	0.000	0.016	0.033	0.020	0.022	0.013	0.001
21 Central Kalimantan	0.018	-0.072	-0.008	0.001	0.006	0.011	0.017	0.018	0.015	0.005
22 South Kalimantan	0.015	-0.033	-0.002	0.002	0.006	0.005	0.021	-0.004	0.005	0.013
23 East Kalimantan	-0.064	0.289	0.341	-0.061	-0.057	-0.053	-0.036	-0.151	-0.080	0.128
24 North Sulawesi	-0.012	-0.040	-0.013	0.006	0.034	0.000	0.012	0.008	0.008	0.002
25 Central Sulawesi	0.017	-0.006	-0.017	0.000	0.004	-0.001	0.006	0.004	0.019	0.025
26 South Sulawesi	-0.007	-0.027	0.003	0.010	-0.006	-0.006	0.000	0.003	0.011	-0.019
27 Southeast Sulawesi	0.005	-0.024	-0.013	0.000	0.006	0.004	0.001	0.017	0.006	0.003
28 Gorontalo	-0.001	-0.017	-0.007	0.000	0.002	0.000	0.004	0.013	0.005	0.000
29 West Sulawesi	0.008	-0.008	-0.004	-0.001	0.001	0.003	-0.002	0.012	0.007	0.016
30 Maluku	0.002	-0.020	-0.002	-0.003	-0.004	0.014	0.005	0.013	0.008	0.013
31 North Maluku	0.003	-0.014	0.006	0.000	-0.003	0.010	0.002	0.003	0.001	0.009
32 West Papua	-0.017	-0.003	0.027	-0.006	0.018	0.000	0.003	-0.011	0.003	0.014
33 Papua	-0.041	0.239	-0.154	-0.027	-0.025	-0.063	-0.028	-0.088	-0.029	-0.216
Total	-0.465	-0.285	-0.328	0.195	-0.072	0.085	-0.017	0.377	-0.001	-0.512

## Sector's Productivity Index in a Region

2008	I	II	III	IV	V	VI	VII	VIII	IX
1 N A D	0.510	35.728	1.547	1.599	1.136	0.908	1.143	1.711	1.249
2 North Sumatra	0.507	1.850	3.129	3.848	1.433	0.950	1.499	5.411	0.743
3 West Sumatra	0.500	2.051	1.948	4.318	1.101	0.962	2.520	4.074	1.255
4 Riau	0.331	25.853	2.089	1.144	0.698	0.488	0.513	1.427	0.362
5 Jambi	0.515	15.270	2.879	6.231	1.297	1.138	1.488	7.775	0.802
6 South Sumatra	0.323	28.303	3.757	2.355	2.280	1.104	1.073	5.161	0.722
7 Bengkulu	0.715	4.721	0.506	3.713	0.691	1.178	2.133	7.127	1.676
8 Lampung	0.774	0.758	1.751	2.906	1.113	0.966	1.508	11.050	0.774
9 Bangka-Belitung	1.026	1.495	1.404	1.005	1.163	0.926	0.467	1.802	0.439
10 Riau Peninsula	2.028	8.573	2.998	1.805	0.795	0.639	0.448	0.758	0.095
11 DKI Jakarta	0.004	0.523	0.906	2.460	1.871	0.785	1.146	10.901	0.723
12 West Java	0.394	3.685	2.693	9.436	0.544	0.820	0.621	2.456	0.552
13 Central Java	0.541	1.255	1.921	5.541	0.825	0.998	1.144	3.435	0.902
14 D I Y	0.437	0.959	1.085	6.000	1.789	0.996	2.084	7.604	1.331
15 East Java	0.399	3.219	1.774	10.082	0.619	1.507	1.107	4.142	0.718
16 Banten	0.292	0.193	2.576	22.845	0.528	0.832	1.203	1.636	0.348
17 Bali	0.491	0.560	0.782	5.951	0.691	1.560	2.169	4.270	1.094
18 West Nusa Tenggara	0.444	14.048	0.621	3.670	2.054	1.228	1.515	7.189	1.026
19 East Nusa Tenggara	0.602	0.674	0.255	3.805	2.001	1.712	2.139	7.270	2.450
20 West Kalimantan	0.414	0.456	4.602	3.271	2.076	1.763	2.224	7.313	1.093
21 Central Kalimantan	0.695	2.233	1.358	2.742	1.260	0.931	1.777	5.587	1.008
22 South Kalimantan	0.593	4.798	1.564	2.798	1.124	0.714	1.652	2.938	0.600
23 East Kalimantan	0.194	9.903	4.575	0.720	0.512	0.416	0.640	1.392	0.120
24 North Sulawesi	0.399	5.052	1.818	6.088	3.225	0.973	1.878	6.077	1.022
25 Central Sulawesi	0.799	6.409	1.078	2.980	1.365	0.699	1.374	4.515	1.383
26 South Sulawesi	0.542	8.049	2.759	5.758	1.229	0.875	1.347	5.539	1.069
27 Southeast Sulawesi	0.666	4.374	1.345	3.450	1.729	1.053	1.236	8.295	0.984
28 Gorontalo	0.551	1.095	1.228	3.633	1.927	0.997	2.068	13.066	1.457

## Sector's Productivity Index in a Region (continued)

2008	I	II	III	IV	V	VI	VII	VIII	IX
29 West Sulawesi	0.813	2.366	1.398	2.536	1.229	1.020	0.701	8.952	1.285
30 Maluku	0.536	0.630	1.486	1.159	0.357	2.250	1.739	10.563	1.359
31 North Maluku	0.613	2.391	3.342	2.423	0.415	2.065	1.308	5.720	0.626
32 West Papua	0.404	11.512	6.380	2.341	3.804	1.175	1.836	3.975	1.120
33 Papua	0.443	42.119	0.211	1.141	1.484	0.346	1.223	1.907	0.613
Total	0.375	9.125	2.153	5.937	1.270	1.162	1.255	7.856	0.896

## Region's Productivity Index in a Sector

2008	I	II	III	IV	V	VI	VII	VIII	IX	Region
1 N A D	1.477	4.253	0.781	0.293	0.972	0.849	0.990	0.237	1.513	1.086
2 North Sumatra	1.341	0.201	1.440	0.642	1.118	0.810	1.184	0.682	0.821	0.991
3 West Sumatra	1.235	0.208	0.837	0.673	0.802	0.766	1.858	0.480	1.295	0.925
4 Riau	2.024	6.489	2.222	0.441	1.259	0.962	0.937	0.416	0.924	2.290
5 Jambi	0.888	1.081	0.863	0.678	0.659	0.633	0.766	0.639	0.578	0.646
6 South Sumatra	0.810	2.918	1.642	0.373	1.689	0.894	0.804	0.618	0.757	0.941
7 Bengkulu	0.941	0.255	0.116	0.309	0.269	0.500	0.839	0.448	0.923	0.493
8 Lampung	1.109	0.045	0.437	0.263	0.470	0.446	0.645	0.755	0.464	0.537
9 Bangka-Belitung	2.836	0.170	0.676	0.176	0.949	0.827	0.386	0.238	0.508	1.037
10 Riau Peninsula	16.900	2.935	4.349	0.950	1.956	1.719	1.116	0.301	0.329	3.124
11 DKI Jakarta	0.048	0.250	1.833	1.807	6.422	2.945	3.983	6.050	3.517	4.360
12 West Java	0.956	0.368	1.138	1.447	0.389	0.642	0.450	0.285	0.560	0.910
13 Central Java	0.809	0.077	0.500	0.523	0.364	0.482	0.511	0.245	0.564	0.561
14 D I Y	0.612	0.055	0.264	0.530	0.739	0.450	0.872	0.508	0.779	0.525
15 East Java	0.888	0.294	0.687	1.417	0.407	1.082	0.736	0.440	0.668	0.834
16 Banten	0.756	0.021	1.160	3.732	0.403	0.694	0.930	0.202	0.377	0.970
17 Bali	0.831	0.039	0.230	0.636	0.345	0.851	1.096	0.345	0.774	0.634
18 West Nusa Tenggara	0.540	0.702	0.131	0.282	0.737	0.482	0.551	0.417	0.522	0.456
19 East Nusa Tenggara	0.455	0.021	0.034	0.181	0.446	0.417	0.483	0.262	0.774	0.283
20 West Kalimantan	0.774	0.035	1.499	0.386	1.146	1.064	1.243	0.653	0.855	0.701
21 Central Kalimantan	1.632	0.215	0.555	0.407	0.874	0.706	1.247	0.626	0.990	0.880
22 South Kalimantan	1.349	0.448	0.619	0.402	0.754	0.524	1.122	0.319	0.571	0.852
23 East Kalimantan	2.195	4.595	8.997	0.514	1.706	1.517	2.159	0.750	0.568	4.234
24 North Sulawesi	0.930	0.484	0.738	0.897	2.220	0.732	1.309	0.676	0.997	0.874
25 Central Sulawesi	1.439	0.474	0.338	0.339	0.725	0.406	0.739	0.388	1.041	0.675
26 South Sulawesi	1.061	0.648	0.941	0.712	0.710	0.553	0.788	0.518	0.876	0.734
27 Southeast Sulawesi	0.997	0.269	0.350	0.326	0.763	0.508	0.553	0.592	0.615	0.561
28 Gorontalo	0.473	0.039	0.183	0.197	0.488	0.276	0.530	0.535	0.523	0.322
29 West Sulawesi	0.918	0.110	0.275	0.181	0.409	0.371	0.236	0.482	0.606	0.423
30 Maluku	0.561	0.027	0.270	0.077	0.110	0.759	0.544	0.527	0.594	0.392
31 North Maluku	0.567	0.091	0.539	0.142	0.113	0.617	0.362	0.253	0.243	0.347
32 West Papua	1.123	1.314	3.085	0.411	3.119	1.053	1.524	0.527	1.301	1.041
33 Papua	1.124	4.390	0.093	0.183	1.111	0.283	0.927	0.231	0.650	0.951

## C Index

	2006	I	II	III	IV	V	VI	VII	VIII	IX	Region
1	N A D	0.003	0.038	0.020	0.013	0.017	0.020	0.011	0.004	0.003	0.054
2	North Sumatra	0.038	0.055	0.067	0.002	0.026	0.020	0.025	0.035	0.036	0.114
3	West Sumatra	0.022	0.095	0.024	0.006	0.002	0.012	0.030	0.023	0.037	0.115
4	Riau	0.040	0.451	0.122	0.008	0.057	0.102	0.055	0.088	0.030	0.495
5	Jambi	0.006	0.051	0.005	0.002	0.005	0.005	0.003	0.018	0.001	0.055
6	South Sumatra	0.059	0.124	0.005	0.010	0.003	0.046	0.045	0.045	0.037	0.163
7	Bengkulu	0.012	0.037	0.011	0.003	0.002	0.015	0.012	0.015	0.012	0.048
8	Lampung	0.013	0.057	0.066	0.009	0.012	0.004	0.001	0.043	0.000	0.100
9	Bangka-Belitung	0.022	0.320	0.070	0.000	0.003	0.018	0.002	0.004	0.000	0.329
10	Riau Peninsula	0.002	0.014	0.091	0.006	0.015	0.038	0.011	0.020	0.022	0.105
11	DKI Jakarta	0.007	0.152	0.123	0.013	0.261	0.049	0.121	0.482	0.088	0.603
12	West Java	0.047	0.092	0.070	0.081	0.025	0.003	0.036	0.050	0.017	0.163
13	Central Java	0.037	0.101	0.017	0.013	0.002	0.044	0.011	0.038	0.038	0.131
14	D I Y	0.015	0.058	0.014	0.011	0.002	0.011	0.027	0.004	0.018	0.071
15	East Java	0.009	0.225	0.062	0.087	0.036	0.128	0.014	0.032	0.022	0.285
16	Banten	0.010	0.091	0.025	0.094	0.007	0.003	0.006	0.053	0.016	0.145
17	Bali	0.019	0.002	0.058	0.001	0.011	0.035	0.025	0.026	0.011	0.081
18	West Nusa Tenggara	0.005	0.030	0.048	0.000	0.003	0.002	0.004	0.004	0.002	0.057
19	East Nusa Tenggara	0.001	0.017	0.027	0.000	0.005	0.024	0.002	0.012	0.027	0.050
20	West Kalimantan	0.008	0.134	0.018	0.001	0.018	0.027	0.019	0.031	0.018	0.145
21	Central Kalimantan	0.015	0.085	0.001	0.007	0.007	0.020	0.011	0.006	0.015	0.091
22	South Kalimantan	0.026	0.051	0.016	0.006	0.014	0.001	0.015	0.017	0.007	0.066
23	East Kalimantan	0.003	0.132	0.462	0.030	0.018	0.014	0.019	0.188	0.046	0.520
24	North Sulawesi	0.009	0.040	0.010	0.003	0.021	0.016	0.001	0.019	0.027	0.060
25	Central Sulawesi	0.011	0.014	0.045	0.012	0.011	0.008	0.006	0.035	0.004	0.063
26	South Sulawesi	0.015	0.025	0.007	0.023	0.014	0.009	0.004	0.003	0.010	0.043
27	Southeast Sulawesi	0.006	0.030	0.026	0.003	0.009	0.004	0.001	0.019	0.007	0.046
28	Gorontalo	0.002	0.009	0.008	0.002	0.003	0.005	0.002	0.006	0.008	0.017
29	West Sulawesi	0.011	0.023	0.013	0.000	0.002	0.005	0.002	0.005	0.006	0.030
30	Maluku	0.002	0.011	0.015	0.005	0.004	0.016	0.001	0.004	0.006	0.027
31	North Maluku	0.004	0.000	0.019	0.003	0.008	0.002	0.005	0.006	0.002	0.023
32	West Papua	0.012	0.021	0.005	0.002	0.008	0.009	0.013	0.009	0.012	0.034
33	Papua	0.157	0.470	0.278	0.064	0.077	0.088	0.079	0.161	0.107	0.620
	Total	0.197	0.847	0.604	0.173	0.287	0.219	0.179	0.566	0.180	1.291

## Ca Index

	2006	I	II	III	IV	V	VI	VII	VIII	IX	Amount
1	N A D	-0.003	0.038	0.020	-0.013	-0.017	-0.020	-0.011	0.004	0.003	0.001
2	North Sumatra	0.038	-0.055	0.067	-0.002	0.026	0.020	0.025	0.035	0.036	0.188
3	West Sumatra	0.022	-0.095	0.024	0.006	-0.002	0.012	0.030	0.023	0.037	0.058
4	Riau	-0.040	0.451	-0.122	-0.008	-0.057	-0.102	-0.055	-0.088	-0.030	-0.052
5	Jambi	0.006	-0.051	0.005	0.002	-0.005	0.005	0.003	0.018	0.001	-0.015
6	South Sumatra	-0.059	0.124	0.005	-0.010	0.003	-0.046	-0.045	-0.045	-0.037	-0.110
7	Bengkulu	0.012	-0.037	-0.011	-0.003	0.002	0.015	0.012	0.015	0.012	0.017
8	Lampung	0.013	-0.057	-0.066	0.009	-0.012	0.004	-0.001	0.043	0.000	-0.067
9	Bangka-Belitung	0.022	-0.320	0.070	0.000	0.003	0.018	0.002	-0.004	0.000	-0.208
10	Riau Peninsula	-0.002	-0.014	0.091	0.006	-0.015	0.038	-0.011	-0.020	-0.022	0.051
11	DKI Jakarta	-0.007	-0.152	-0.123	-0.013	0.261	0.049	0.121	0.482	0.088	0.704
12	West Java	0.047	-0.092	0.070	0.081	-0.025	0.003	-0.036	-0.050	0.017	0.015
13	Central Java	0.037	-0.101	0.017	0.013	0.002	0.044	0.011	0.038	0.038	0.099
14	D I Y	0.015	-0.058	-0.014	0.011	0.002	0.011	0.027	0.004	0.018	0.015



## Ca Index (continued)

2006	I	II	III	IV	V	VI	VII	VIII	IX	Amount
15 East Java	0.009	-0.225	-0.062	0.087	-0.036	0.128	0.014	0.032	0.022	-0.030
16 Banten	0.010	-0.091	0.025	0.094	-0.007	0.003	0.006	-0.053	-0.016	-0.028
17 Bali	0.019	0.002	-0.058	-0.001	-0.011	0.035	0.025	-0.026	0.011	-0.003
18 West Nusa Tenggara	0.005	0.030	-0.048	0.000	0.003	-0.002	-0.004	-0.004	-0.002	-0.022
19 East Nusa Tenggara	0.001	-0.017	-0.027	0.000	0.005	0.024	0.002	0.012	0.027	0.027
20 West Kalimantan	0.008	-0.134	0.018	0.001	0.018	0.027	0.019	0.031	0.018	0.006
21 Central Kalimantan	0.015	-0.085	0.001	0.007	0.007	0.020	0.011	0.006	0.015	-0.002
22 South Kalimantan	0.026	-0.051	-0.016	-0.006	0.014	-0.001	0.015	0.017	0.007	0.005
23 East Kalimantan	-0.003	-0.132	0.462	-0.030	-0.018	-0.014	0.019	-0.188	-0.046	0.049
24 North Sulawesi	0.009	-0.040	-0.010	-0.003	0.021	0.016	0.001	0.019	0.027	0.040
25 Central Sulawesi	-0.011	-0.014	-0.045	-0.012	0.011	-0.008	0.006	0.035	0.004	-0.034
26 South Sulawesi	0.015	0.025	-0.007	-0.023	-0.014	-0.009	-0.004	0.003	0.010	-0.005
27 Southeast Sulawesi	0.006	-0.030	-0.026	0.003	0.009	0.004	-0.001	0.019	0.007	-0.008
28 Gorontalo	0.002	-0.009	-0.008	0.002	0.003	0.005	0.002	0.006	0.008	0.009
29 West Sulawesi	0.011	-0.023	0.013	0.000	0.002	0.005	-0.002	0.005	0.006	0.017
30 Maluku	0.002	-0.011	-0.015	0.005	-0.004	0.016	0.001	0.004	0.006	0.003
31 North Maluku	-0.004	0.000	0.019	-0.003	-0.008	0.002	-0.005	-0.006	-0.002	-0.007
32 West Papua	-0.012	-0.021	0.005	0.002	-0.008	-0.009	-0.013	0.009	-0.012	-0.059
33 Papua	-0.157	0.470	-0.278	-0.064	-0.077	-0.088	-0.079	-0.161	-0.107	-0.542
Total	0.052	-0.775	-0.025	0.136	0.077	0.204	0.085	0.216	0.145	0.114

## Sector's Productivity Index within a Region

2006	I	II	III	IV	V	VI	VII	VIII	IX
1 N A D	0.411	13.016	4.273	1.041	0.667	1.062	0.711	5.353	0.987
2 North Sumatra	0.497	3.182	3.231	1.739	1.091	1.070	0.937	4.163	1.092
3 West Sumatra	0.527	1.702	3.160	2.628	0.614	1.116	1.361	4.788	1.453
4 Riau	0.294	20.618	2.040	2.371	0.418	0.576	0.373	1.638	0.618
5 Jambi	0.536	5.522	3.760	3.589	0.727	1.533	1.091	8.533	0.924
6 South Sumatra	0.302	26.309	6.129	3.534	1.849	1.443	0.616	5.013	0.819
7 Bengkulu	0.634	1.422	1.020	0.860	0.909	1.917	1.941	7.203	1.365
8 Lampung	0.684	4.966	1.653	8.297	0.730	1.743	1.070	11.627	1.094
9 Bangka-Belitung	0.920	0.426	8.338	2.038	0.878	1.690	0.756	2.756	0.625
10 Riau Peninsula	0.202	5.105	2.605	2.021	0.313	1.029	0.342	1.866	0.181
11 DKI Jakarta	0.087	1.041	1.003	0.970	1.555	0.616	0.776	3.720	0.568
12 West Java	0.530	3.744	2.643	5.635	0.389	0.858	0.311	1.812	0.717
13 Central Java	0.505	1.201	2.134	2.773	0.604	1.260	0.730	4.626	1.083
14 D I Y	0.570	0.457	1.422	4.975	0.670	1.094	2.093	2.984	1.103
15 East Java	0.367	2.069	2.178	7.373	0.430	1.957	0.884	4.460	0.897
16 Banten	0.377	0.170	2.446	10.018	0.474	0.871	0.679	1.112	0.322
17 Bali	0.632	8.561	0.738	2.004	0.371	1.856	1.754	1.921	0.924
18 West Nusa Tenggara	0.524	13.777	0.619	2.959	1.166	1.194	0.741	3.899	0.796
19 East Nusa Tenggara	0.530	5.190	0.531	3.507	1.761	4.474	1.331	10.937	3.459
20 West Kalimantan	0.425	0.418	3.387	2.464	1.592	1.757	1.624	7.287	1.305
21 Central Kalimantan	0.564	2.907	2.870	4.928	1.271	1.877	1.302	4.547	1.331
22 South Kalimantan	0.611	4.272	1.489	0.976	1.158	0.746	0.982	4.336	0.700
23 East Kalimantan	0.190	4.245	5.480	0.544	0.352	0.559	0.578	0.475	0.152
24 North Sulawesi	0.454	3.144	1.704	1.516	1.543	1.614	0.678	5.452	1.827
25 Central Sulawesi	0.580	14.644	2.288	2.352	2.884	1.947	2.137	19.140	1.814
26 South Sulawesi	0.581	12.983	3.114	1.006	0.604	1.119	0.817	4.771	1.141
27 Southeast Sulawesi	0.588	5.458	1.528	4.585	1.985	1.693	0.898	9.796	1.360
28 Gorontalo	0.491	2.106	1.320	5.264	1.612	2.152	1.099	6.901	2.159

Sector's Productivity Index within a Region (*continued*)

	2006	I	II	III	IV	V	VI	VII	VIII	IX
29 West Sulawesi	0.770	0.518	7.092	1.910	1.113	1.698	0.458	5.400	1.332	
30 Maluku	0.528	3.233	0.978	9.846	0.317	3.672	1.111	6.167	1.614	
31 North Maluku	0.526	19.012	14.839	1.937	0.262	2.667	0.808	4.882	1.147	
32 West Papua	0.460	15.247	6.496	6.433	1.189	1.677	0.811	11.940	0.920	
33 Papua	0.238	108.867	0.877	1.004	1.262	1.755	1.066	2.590	0.798	
Total	0.234	6.027	1.318	3.556	0.736	0.683	0.702	4.679	0.534	

## Region's Productivity Index in a Sector

	2010	I	II	III	IV	V	VI	VII	VIII	IX	Region
1 N A D	1.327	1.474	0.718	0.274	0.796	0.848	0.895	0.264	1.043	0.913	
2 North Sumatra	1.245	0.230	1.206	0.633	0.937	0.709	1.052	0.715	0.770	0.949	
3 West Sumatra	1.221	0.226	0.812	0.728	0.797	0.664	1.637	0.443	1.174	0.933	
4 Riau	1.978	5.626	2.116	0.238	1.193	0.924	0.894	0.311	0.875	2.207	
5 Jambi	0.807	0.630	0.867	0.603	0.525	0.530	0.567	0.504	0.411	0.585	
6 South Sumatra	0.769	2.689	1.524	0.412	1.496	0.756	0.710	0.634	0.742	0.913	
7 Bengkulu	0.851	0.237	0.181	0.267	0.264	0.525	0.701	0.418	0.772	0.501	
8 Lampung	0.939	0.054	0.382	0.289	0.388	0.373	0.604	0.899	0.401	0.502	
9 Bangka-Belitung	2.009	0.091	0.873	0.276	0.854	0.708	0.429	0.249	0.454	0.910	
10 Riau Peninsula	3.833	1.327	2.901	0.498	1.572	1.675	0.791	0.341	0.290	2.617	
11 DKI Jakarta	0.078	0.234	1.699	1.597	6.075	2.223	3.547	2.959	2.440	4.136	
12 West Java	1.118	0.385	1.025	1.436	0.411	0.654	0.388	0.256	0.489	0.931	
13 Central Java	0.766	0.086	0.529	0.519	0.362	0.459	0.461	0.253	0.517	0.580	
14 D I Y	0.729	0.048	0.287	0.597	0.618	0.431	0.889	0.353	0.669	0.581	
15 East Java	0.841	0.313	0.779	1.210	0.411	1.076	0.840	0.495	0.700	0.897	
16 Banten	0.711	0.018	0.816	1.845	0.364	0.544	0.676	0.163	0.295	0.816	
17 Bali	0.835	0.058	0.213	0.541	0.269	0.731	1.002	0.271	0.686	0.625	
18 West Nusa Tenggara	0.526	0.827	0.106	0.128	0.578	0.358	0.397	0.384	0.434	0.461	
19 East Nusa Tenggara	0.437	0.023	0.033	0.181	0.458	0.490	0.386	0.246	0.792	0.298	
20 West Kalimantan	0.743	0.045	1.470	0.425	1.105	0.925	1.411	0.740	0.820	0.709	
21 Central Kalimantan	1.340	0.221	0.750	0.434	0.877	0.860	1.098	0.805	0.970	0.901	
22 South Kalimantan	1.280	0.510	0.611	0.401	0.739	0.490	0.980	0.371	0.554	0.862	
23 East Kalimantan	1.761	3.306	7.398	0.494	1.560	1.243	2.045	0.707	0.466	3.658	
24 North Sulawesi	1.152	0.348	0.656	0.436	1.697	0.727	1.031	0.527	0.912	0.961	
25 Central Sulawesi	1.370	0.311	0.427	0.496	0.820	0.466	0.791	0.517	0.967	0.720	
26 South Sulawesi	1.052	0.877	0.809	0.568	0.654	0.549	0.778	0.569	0.779	0.767	
27 Southeast Sulawesi	0.884	0.180	0.393	0.335	0.854	0.543	0.581	0.549	0.519	0.571	
28 Gorontalo	0.513	0.032	0.167	0.219	0.384	0.246	0.350	0.422	0.434	0.330	
29 West Sulawesi	0.913	0.138	0.311	0.212	0.421	0.357	0.274	0.739	0.582	0.452	
30 Maluku	0.502	0.037	0.157	0.074	0.113	0.606	0.463	0.338	0.506	0.355	
31 North Maluku	0.557	0.087	0.682	0.052	0.110	0.700	0.311	0.294	0.212	0.362	
32 West Papua	1.284	0.804	6.080	0.386	2.216	0.947	1.426	0.558	0.985	1.345	
33 Papua	0.576	3.069	0.128	0.169	1.370	0.313	0.866	0.319	0.806	0.761	

## C Index

2004	I	II	III	IV	V	VI	VII	VIII	IX	Region
1 N A D	0.088	0.433	0.111	0.103	0.115	0.101	0.082	0.100	0.078	0.515
2 North Sumatra	0.033	0.073	0.074	0.003	0.017	0.031	0.026	0.047	0.018	0.128
3 West Sumatra	0.031	0.184	0.125	0.055	0.030	0.048	0.007	0.034	0.001	0.240
4 Riau	0.041	0.686	0.139	0.090	0.066	0.089	0.069	0.108	0.059	0.729
5 Jambi	0.012	0.008	0.018	0.007	0.012	0.013	0.006	0.004	0.009	0.032
6 South Sumatra	0.072	0.246	0.068	0.066	0.004	0.041	0.047	0.044	0.037	0.286
7 Bengkulu	0.010	0.014	0.009	0.006	0.001	0.012	0.012	0.015	0.011	0.032
8 Lampung	0.019	0.012	0.037	0.009	0.003	0.001	0.003	0.044	0.004	0.062
9 Bangka-Belitung	0.018	0.166	0.059	0.008	0.008	0.018	0.002	0.008	0.003	0.178
10 Riau Peninsula	0.014	0.038	0.132	0.024	0.011	0.077	0.002	0.031	0.013	0.164
11 DKI Jakarta	0.001	0.141	0.153	0.033	0.309	0.071	0.064	0.550	0.081	0.677
12 West Java	0.036	0.048	0.022	0.069	0.044	0.006	0.045	0.054	0.001	0.126
13 Central Java	0.037	0.099	0.020	0.014	0.003	0.044	0.018	0.031	0.034	0.127
14 D I Y	0.013	0.055	0.014	0.007	0.003	0.009	0.031	0.011	0.018	0.070
15 East Java	0.016	0.229	0.098	0.100	0.046	0.076	0.007	0.023	0.004	0.284
16 Banten	0.047	0.340	0.282	0.210	0.080	0.109	0.082	0.191	0.082	0.557
17 Bali	0.016	0.033	0.042	0.014	0.005	0.030	0.033	0.001	0.021	0.076
18 West Nusa Tenggara	0.000	0.051	0.061	0.005	0.002	0.010	0.003	0.001	0.001	0.080
19 East Nusa Tenggara	0.008	0.030	0.027	0.001	0.011	0.018	0.006	0.012	0.024	0.053
20 West Kalimantan	0.001	0.127	0.046	0.005	0.019	0.034	0.021	0.034	0.013	0.146
21 Central Kalimantan	0.024	0.104	0.006	0.001	0.006	0.023	0.019	0.018	0.022	0.115
22 South Kalimantan	0.004	0.107	0.041	0.014	0.003	0.012	0.012	0.001	0.003	0.117
23 East Kalimantan	0.014	0.120	0.514	0.088	0.029	0.042	0.001	0.101	0.056	0.550
24 North Sulawesi	0.009	0.020	0.011	0.001	0.027	0.003	0.009	0.006	0.014	0.041
25 Central Sulawesi	0.018	0.035	0.013	0.004	0.007	0.003	0.008	0.020	0.012	0.049
26 South Sulawesi	0.006	0.034	0.023	0.009	0.013	0.020	0.008	0.005	0.015	0.051
27 Southeast Sulawesi	0.009	0.018	0.015	0.006	0.009	0.005	0.004	0.019	0.009	0.035
28 Gorontalo	0.004	0.020	0.004	0.000	0.002	0.002	0.003	0.012	0.004	0.024
29 West Sulawesi	0.010	0.007	0.004	0.001	0.001	0.001	0.001	0.010	0.006	0.017
30 Maluku	0.005	0.015	0.006	0.002	0.003	0.012	0.005	0.014	0.010	0.028
31 North Maluku	0.004	0.008	0.008	0.001	0.002	0.008	0.001	0.003	0.002	0.016
32 West Papua	0.010	0.004	0.020	0.014	0.009	0.003	0.001	0.002	0.004	0.029
33 Papua	0.042	0.222	0.044	0.043	0.001	0.017	0.003	0.036	0.003	0.237

## Ca Index

2010	I	II	III	IV	V	VI	VII	VIII	IX
1 N A D	0.005	0.055	-0.037	-0.011	-0.011	0.003	-0.004	-0.031	0.013
2 North Sumatra	0.018	-0.071	0.027	0.010	0.006	0.008	0.021	0.050	0.010
3 West Sumatra	0.012	-0.059	-0.010	0.012	0.000	0.005	0.044	0.000	0.029
4 Riau	-0.049	0.628	-0.096	-0.067	-0.074	-0.095	-0.088	-0.173	-0.067
5 Jambi	-0.004	-0.001	-0.005	0.004	-0.009	-0.005	-0.008	0.004	-0.008
6 South Sumatra	-0.066	0.188	-0.052	-0.026	-0.014	-0.050	-0.058	-0.049	-0.035
7 Bengkulu	0.008	-0.010	-0.017	0.000	-0.005	0.007	0.007	0.009	0.012
8 Lampung	0.015	-0.095	-0.036	-0.001	-0.011	-0.007	0.003	0.073	-0.002
9 Bangka-Belitung	0.022	-0.072	0.017	0.001	0.009	0.015	0.000	-0.001	0.003
10 Riau Peninsula	0.021	0.019	0.105	-0.009	0.005	0.035	-0.020	-0.065	-0.029
11 DKI Jakarta	-0.074	-0.236	-0.261	0.012	0.227	0.037	0.104	0.562	0.044
12 West Java	0.012	-0.083	0.000	0.116	-0.061	0.000	-0.069	-0.091	-0.022
13 Central Java	0.025	-0.081	0.006	0.027	-0.010	0.029	0.007	0.003	0.025
14 D I Y	0.005	-0.038	-0.030	0.010	0.005	0.004	0.017	0.011	0.014
15 East Java	-0.016	-0.126	-0.093	0.075	-0.063	0.095	0.000	-0.003	0.004

## Ca Index (continued)

2010	I	II	III	IV	V	VI	VII	VIII	IX
16 Banten	-0.006	-0.089	-0.019	0.101	-0.026	-0.005	-0.004	-0.071	-0.021
17 Bali	0.011	-0.033	-0.037	0.014	-0.009	0.032	0.026	0.002	0.017
18 West Nusa Tenggara	-0.007	0.055	-0.060	-0.009	-0.002	-0.008	-0.010	0.003	-0.002
19 East Nusa Tenggara	0.006	-0.033	-0.021	0.001	0.006	0.014	0.005	0.008	0.024
20 West Kalimantan	-0.007	-0.130	0.030	0.000	0.011	0.020	0.024	0.027	0.009
21 Central Kalimantan	0.012	-0.077	-0.009	0.000	0.002	0.012	0.010	0.026	0.012
22 South Kalimantan	0.016	-0.008	-0.015	0.001	0.002	-0.002	0.014	-0.002	0.002
23 East Kalimantan	-0.036	0.270	0.261	-0.046	-0.052	-0.058	-0.026	-0.119	-0.076
24 North Sulawesi	0.006	-0.028	-0.013	0.000	0.030	0.006	0.012	0.008	0.012
25 Central Sulawesi	0.018	-0.020	-0.019	0.003	0.004	-0.003	0.005	0.010	0.016
26 South Sulawesi	-0.001	0.017	-0.031	0.002	-0.017	-0.017	-0.008	0.004	0.003
27 Southeast Sulawesi	0.007	-0.033	-0.014	0.001	0.008	0.005	0.002	0.016	0.003
28 Gorontalo	0.002	-0.015	-0.008	0.001	0.001	0.000	0.001	0.011	0.004
29 West Sulawesi	0.007	-0.010	-0.011	-0.001	-0.002	-0.001	-0.004	0.018	0.004
30 Maluku	0.004	-0.011	-0.006	-0.002	-0.003	0.013	0.005	0.009	0.008
31 North Maluku	0.004	-0.012	0.007	-0.003	-0.003	0.012	0.001	0.005	0.000
32 West Papua	-0.008	-0.032	0.085	-0.007	0.009	-0.005	-0.001	-0.011	-0.003
33 Papua	-0.042	0.204	-0.118	-0.021	-0.008	-0.050	-0.024	-0.058	-0.015
Total	-0.078	0.036	-0.479	0.187	-0.055	0.047	-0.013	0.184	-0.011

## Sector's Productivity Index in a Region

2004	I	II	III	IV	V	VI	VII	VIII	IX
1 N A D	0.402	52.078	3.801	0.834	0.561	0.761	0.712	2.209	0.633
2 North Sumatra	0.541	2.837	3.206	4.537	1.231	0.972	1.258	4.716	0.737
3 West Sumatra	0.525	4.132	1.776	36.565	1.203	0.893	1.919	4.993	1.406
4 Riau	0.339	25.520	1.552	0.902	0.534	0.390	0.410	1.026	0.315
5 Jambi	0.528	16.294	3.395	13.749	1.090	1.040	1.466	7.340	0.786
6 South Sumatra	0.315	36.521	3.506	2.213	2.205	1.013	0.799	4.565	0.658
7 Bengkulu	0.645	4.246	1.122	1.675	0.801	1.504	2.402	7.577	1.309
8 Lampung	0.738	9.201	1.654	3.302	1.174	0.975	1.342	9.978	0.884
9 Bangka-Belitung	0.650	0.895	5.363	1.437	1.163	1.022	0.700	3.080	0.492
10 Riau Peninsula	0.318	2.944	2.148	0.575	0.309	1.020	0.381	2.423	0.124
11 DKI Jakarta	0.199	1.644	0.948	2.109	2.270	0.566	0.768	4.195	0.537
12 West Java	0.558	6.620	2.416	8.303	0.491	0.761	0.484	2.008	0.564
13 Central Java	0.559	1.151	1.910	5.132	0.796	0.996	1.058	3.918	0.912
14 D I Y	0.615	0.557	1.260	6.119	0.921	0.828	2.955	3.496	1.024
15 East Java	0.400	2.851	2.126	14.174	0.697	1.422	1.237	4.774	0.769
16 Banten	0.400	0.145	2.461	50.209	0.560	0.704	0.871	1.296	0.298
17 Bali	0.613	1.499	0.657	7.462	0.600	1.313	2.633	2.742	1.141
18 West Nusa Tenggara	0.543	18.477	0.425	3.994	1.348	0.720	1.114	4.873	0.887
19 East Nusa Tenggara	0.611	1.570	0.196	3.939	2.780	2.451	1.645	8.198	2.510
20 West Kalimantan	0.407	0.552	4.687	3.531	2.067	1.693	2.183	7.777	1.046
21 Central Kalimantan	0.668	0.884	2.151	3.420	1.177	1.340	1.817	4.897	1.305
22 South Kalimantan	0.534	5.924	1.658	12.104	1.456	0.719	1.668	4.307	0.666
23 East Kalimantan	0.200	6.594	4.952	0.626	0.451	0.316	0.600	0.935	0.117
24 North Sulawesi	0.524	5.739	1.605	4.750	2.306	0.785	1.224	3.680	0.991
25 Central Sulawesi	0.764	2.776	1.557	6.764	1.665	0.914	1.598	7.462	1.162
26 South Sulawesi	0.614	16.046	2.666	5.431	1.044	0.755	1.114	4.487	1.233
27 Southeast Sulawesi	0.653	5.684	1.239	2.717	2.045	1.074	1.351	8.682	1.187
28 Gorontalo	0.635	0.517	1.442	4.949	1.446	0.965	1.357	8.832	1.136
29 West Sulawesi	0.851	3.464	1.790	6.734	0.994	0.954	0.755	8.547	1.338

Sector's Productivity Index in a Region (*continued*)

	2004	I	II	III	IV	V	VI	VII	VIII	IX
30 Maluku		0.566	1.274	1.108	2.930	0.373	1.963	1.593	9.616	1.550
31 North Maluku		0.591	4.392	3.977	2.859	0.404	1.722	0.974	4.858	0.873
32 West Papua		0.557	7.152	3.759	0.845	1.604	0.787	0.887	3.398	0.694
33 Papua		0.239	32.870	1.369	0.846	2.005	0.809	1.568	1.997	0.982
Total		0.391	10.333	2.145	5.840	1.146	1.061	1.054	7.577	0.853

## Region's Productivity Index in a Sector

	2004	I	II	III	IV	V	VI	VII	VIII	IX	Region
1 N A D		1.643	8.056	2.833	0.228	0.783	1.147	1.079	0.466	1.186	1.598
2 North Sumatra		1.410	0.280	1.524	0.792	1.096	0.934	1.216	0.635	0.881	1.019
3 West Sumatra		1.217	0.363	0.752	5.683	0.953	0.764	1.652	0.598	1.496	0.908
4 Riau		2.126	6.055	1.774	0.379	1.143	0.900	0.953	0.332	0.906	2.452
5 Jambi		0.874	1.022	1.026	1.526	0.617	0.635	0.901	0.628	0.597	0.648
6 South Sumatra		0.776	3.403	1.574	0.365	1.854	0.920	0.730	0.580	0.743	0.963
7 Bengkulu		0.787	0.196	0.250	0.137	0.334	0.678	1.089	0.478	0.734	0.478
8 Lampung		1.011	0.477	0.413	0.303	0.549	0.492	0.681	0.705	0.555	0.536
9 Bangka-Belitung		1.830	0.095	2.755	0.271	1.119	1.062	0.732	0.448	0.636	1.102
10 Riau Peninsula		2.692	0.943	3.314	0.326	0.891	3.180	1.197	1.058	0.482	3.309
11 DKI Jakarta		2.294	0.717	1.993	1.628	8.931	2.403	3.283	2.495	2.840	4.507
12 West Java		1.286	0.578	1.016	1.283	0.387	0.647	0.414	0.239	0.596	0.902
13 Central Java		0.739	0.058	0.461	0.455	0.360	0.486	0.520	0.268	0.554	0.518
14 D I Y		0.889	0.030	0.332	0.593	0.455	0.442	1.586	0.261	0.680	0.566
15 East Java		0.820	0.222	0.796	1.950	0.489	1.077	0.942	0.506	0.724	0.803
16 Banten		1.032	0.014	1.157	8.671	0.493	0.669	0.833	0.173	0.353	1.009
17 Bali		0.980	0.091	0.192	0.800	0.328	0.775	1.564	0.227	0.838	0.626
18 West Nusa Tenggara		0.660	0.851	0.094	0.325	0.560	0.323	0.503	0.306	0.495	0.476
19 East Nusa Tenggara		0.461	0.045	0.027	0.199	0.716	0.682	0.460	0.319	0.869	0.295
20 West Kalimantan		0.725	0.037	1.524	0.422	1.258	1.113	1.444	0.716	0.855	0.697
21 Central Kalimantan		1.455	0.073	0.856	0.500	0.877	1.078	1.470	0.551	1.306	0.853
22 South Kalimantan		1.177	0.494	0.667	1.787	1.096	0.585	1.365	0.490	0.674	0.862
23 East Kalimantan		2.644	3.310	11.977	0.556	2.044	1.544	2.953	0.640	0.711	5.187
24 North Sulawesi		1.114	0.462	0.622	0.676	1.674	0.616	0.965	0.404	0.967	0.832
25 Central Sulawesi		1.224	0.168	0.455	0.726	0.911	0.540	0.950	0.617	0.854	0.627
26 South Sulawesi		1.236	1.224	0.980	0.733	0.718	0.561	0.833	0.467	1.140	0.788
27 Southeast Sulawesi		0.868	0.286	0.300	0.242	0.929	0.527	0.667	0.596	0.724	0.520
28 Gorontalo		0.526	0.016	0.218	0.275	0.409	0.295	0.417	0.378	0.432	0.324
29 West Sulawesi		0.889	0.137	0.341	0.471	0.355	0.367	0.293	0.461	0.641	0.409
30 Maluku		0.574	0.049	0.205	0.199	0.129	0.735	0.600	0.504	0.722	0.397
31 North Maluku		0.537	0.151	0.659	0.174	0.125	0.577	0.328	0.228	0.364	0.355
32 West Papua		1.640	0.798	2.020	0.167	1.614	0.855	0.969	0.517	0.937	1.152
33 Papua		0.657	3.423	0.687	0.156	1.883	0.820	1.600	0.284	1.239	1.076