# Did Indonesian Political Economic Reform Reduce Economic Growth Disparities Among Regions?

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This research aims to analyze the success of proliferation of districts as political economic policy in Indonesia to reduce economic growth disparities among districts in Aceh Province, and factors affecting these. Cross sectional and time series data were employed in this research, in periods 2001–2012, by panel regression analysis model. Data were grouped into Aceh-13 (periods 2001–2012), Aceh-23 (2008–2012), and reintegrated to Aceh-10 (2001–2012). Estimation results showed that convergence of economic growth, both σ (*sigma*) and β (*beta*) convergence existed significantly, in Aceh-13, Aceh-23, and Aceh-10. Population density and direct government expenditures density both affected convergence of economic growth significantly, which each have negative and positive sign consecutively. The number of teachers, as proxy to knowledge spillover and geographic concentration, are not statistically significant. Proliferation of districts occurred in Aceh, from 13 districts/cities to 23 districts/cities have resulted in a decreasing disparities among districts, indicated by lower half-life indexes from 79.19 years in Aceh-13 to 15.23 years in Aceh-23. Speed of convergence increased from 0.88% in Aceh-13 to 4.55% in Aceh-23.

## INTRODUCTION

Economic development disparities were one of the main development issues in New Order Regime in Indonesia. Income and inter-regional development disparities became main issues in Indonesian development planning. Accordingly, New Order Regime of Indonesia created policies to balance development and economic growth among regionals or districts by promoting economic concentration through new industrial base investment. It pushed Indonesian economic growth significantly. In general, Indonesian economic growth during the New Order Regime grew by an average of 5% to 10% per year, which also led to increased per capita income. Meanwhile, in the post-reform, average of economic growth was only about 5% per annum (Figure 1). The industrial-based development policies drove some regions/districts in Indonesia to grow rapidly, while other locations grew slowly, thus inter-region disparities emerged.
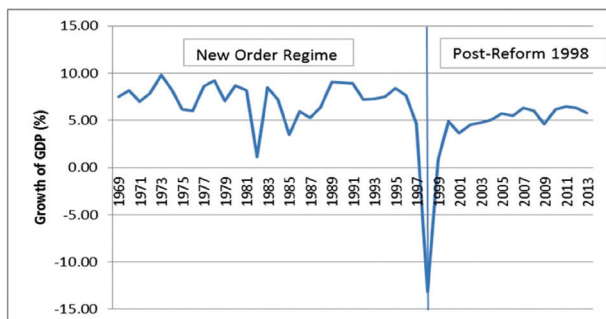


Source: Heerman (2014)

***Figure 1.***
Growth of Indonesian Gross Domestic Product on constant prices year of 2000, period 1961 – 2013

Aceh Province, as an integrated part of the Republic of Indonesia, has been devastated from more than 30 years of conflict for freedom from Indonesia. Mainly, the conflict was caused from unjust economic development. Aceh was less developed and fell far behind other regions economically. Following the development of political economic reform policy, both provincial and district governments in Aceh implemented district proliferation establishing new autonomy districts in Aceh. Furthermore, to peacefully solve the conflict, both government and the Acehnese have agreed to create Specially Autonomy Region for Aceh Province as stipulated in the historic Law on Governing Aceh (2006). On this basis, the Aceh Government had received more authorities in policy making and governed economic development. It spurred new energy for Aceh Government in reducing disparities in Aceh Province.
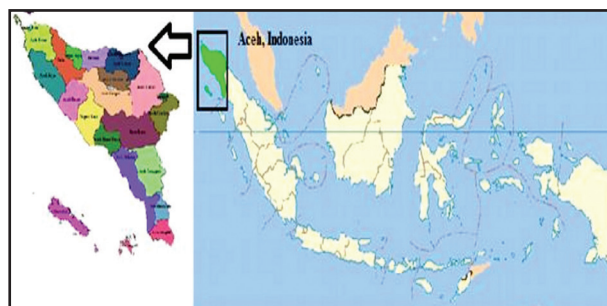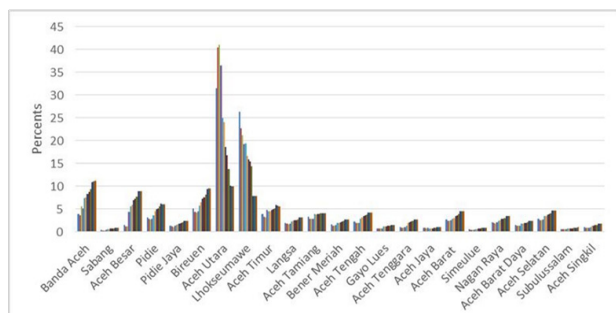


***Figure 2.***
Aceh Map, Indonesia

The data in the period 2001–2012 showed high disparities among districts in Aceh Province. Both North Aceh (Aceh Utara) District and Lhokseumawe City contributed to a half of total Provincial Gross Regional Domestic Product (GRDP) at the beginning of research period while others indicated very low contribution (Figure 3). However, data also indicated that districts which owned high distribution of GRDP tended to decline. On the contrary, districts which low distribution had a trend of increase. Did it describe a phenomenon of catching up of underdeveloped regions/districts to developed regions/districts? Did the political economic

reform policy implemented in Aceh Province successfully reduce the disparities among districts?



Source: BPS-Statistics of Aceh Province (2001 – 2012)

***Figure 3.***
Distribution of GRDP on constant price year of 2000, period 2001 – 2012 (without oil and gas)

## DECENTRALIZATION PROCESS

Economic development disparities in the New Order Regime, at some point, contributed to political and economic reform, which was realized through decentralization of authority as implementation of the Law on Local Government (2004) and Law on Fiscal Balance between the Central and Local Government (2004). The implications have spawned many new autonomy regions/districts as the results of proliferation of districts in Indonesia, either at provincial or at district level, were encouraging. It aimed to increase welfare and reduce disparities in the inter-regions/districts.

The process of decentralization in Indonesia was preceded by the emergence of the desire of the Indonesian nation to give authority to local government after the centralized power has been in effect for 32 years. Even though the Law on Fundamentals of Governance in the Region (1974) has provided the framework of decentralization several decades ago, but it was barely implemented to lower levels of government (Ahmad & Mansoor, 2002). The centralized power caused dissatisfaction in regional development and induced the desire for disintegration, especially in the Provinces of Aceh and Papua. Both provinces triggered the process of decentralization in Indonesia, besides the desire to increase people welfare (Kirana, 2014).

The decentralization process has given authority from the central government to regional (province, district/city) government through the approval of the Law on Local Government (1999) and the Law on Fiscal Balance between the Central and Local Government (1999), which were in effect since 2001. However, both Laws were revised to become the Law on Local Government (2004) and Fiscal Balance between Central and Local Government (2004), respectively. Both revised Laws have given broad authority to the local government at the level of province and district/city in all aspects, by the exception of defense, security, foreign affairs, monetary and fiscal affairs, religion, and justice affairs which remained to be handed by central government (Kis-Katos & Sjahrir , 2014).

The expansion of authority has also given a chance to the region, either at the level of province or district to develop themselves through the proliferation or segregation (pemekaran) of regions. The goal is to improve welfare of the community. The Laws gave the authority of autonomy to the local government even to provinces, specifically to Aceh Province, that are endowed as special autonomy region by central government beforehand. The authority encourage and provide opportunities for local governments to create policies for regional development, such as policies to reduce the level of poverty and unemployment, as well as other efforts for increasing regional development.
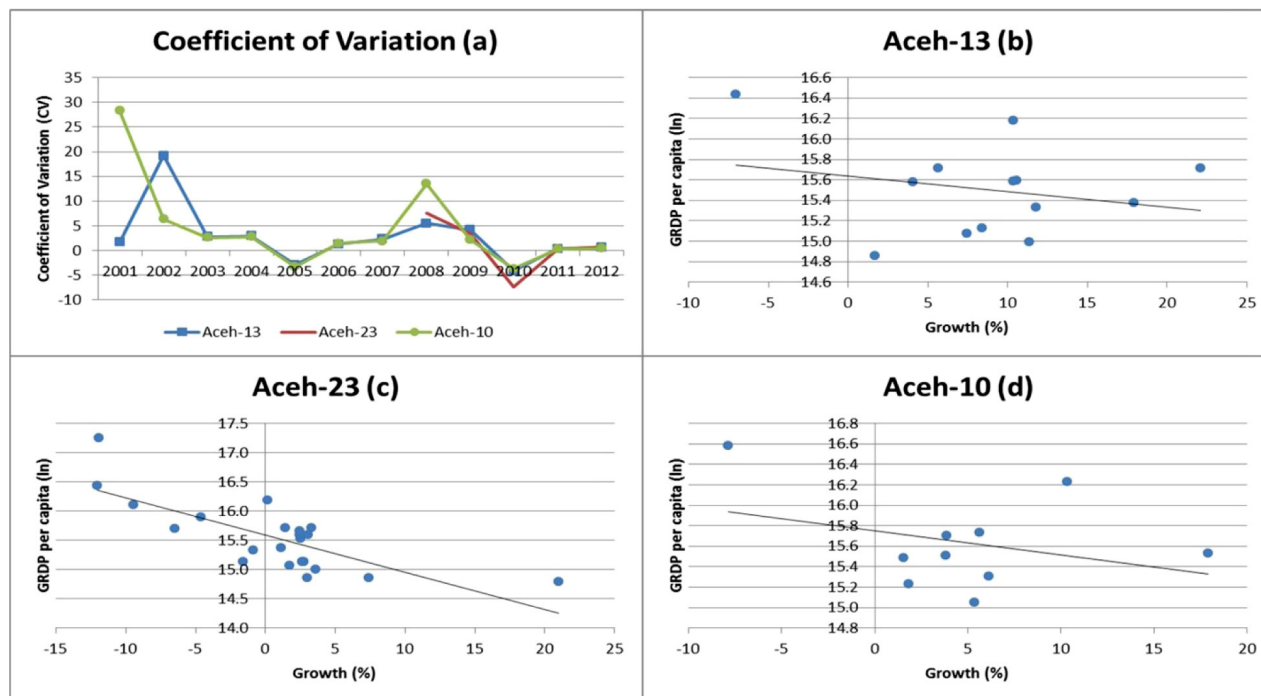
*Figure 4.*
σ-Convergence

## CONCEPTUAL AND THEORETICAL FRAMEWORK

### Growth Theory

Economic growth is a keyword of a country's or region's progress. Higher economic growth for underdeveloped regions will reduce disparities as qualities of production factors push a dynamic growth. According to neoclassical school, growth can be measured by output or per capita income. Increase in per capita income indicates the occurrence of economic growth, as expressed by the Solow (1956) model. Solow used four variables that determined economic growth, which are output, capital, labor, and knowledge. Capital and labor are considered as two factors of production which has marginal product, so that the production function is defined (Solow, 1956; Nelson & Phelps, 1966; Romer, 1994; Barro & Sala-i-Martin, 2004) as:

$$Y(t) = F\big[K(t)\ A(t)L(t)\big] \qquad (1)$$

By using Cobb-Douglas production function as function of time, the Solow model is written as:

$$Y(t) = K(t)^\alpha (A(t)L(t))^\beta \qquad (2)$$
$$0 < \alpha < 1;\ \beta = 1 - \alpha$$

where Y is the output, K and L are capital and labor respectively, and A as the effectiveness of labor. Mankiw, Romer, and Weil (1992) added human capital variable, so that the model were developed into:

$$Y(t) = K(t)^\alpha H(t)^\beta (A(t)L(t))^{1-\alpha-\beta} \qquad (3)$$

where, H is human capital. Result of derivation performed by Mankiw, Romer, and Weil (1992) showed that per capita income growth depends

on population growth, accumulation of physical and human resource capital, that is:

$$h\left[\frac{Y(t)}{L(t)} = h\left[A(0) + g(t) - \frac{\alpha + \beta}{1 - \alpha - \beta}\ln(n + g + \delta)\right.\right.$$

$$\left.\left. + \frac{\alpha}{1 - \alpha - \beta}\ln(s_k) + \frac{\beta}{1 - \alpha - \beta}\ln(s_h)\right]\right]$$

(4)

**Measurement of Convergence**

Convergence is the traditional approach that is widely used to measure the speed of steady-state (Pekkala, 2000), which was developed by Barro and Sala-i-Martin (1991). It can be defined as a pattern of achievement of growth condition towards steady-state growth in the long term (Cornett & Sørensen, 2008). The consequence is that the poor countries are able to catch up with the rich countries in terms of income level (Abreu, de Groot, & Florax 2005).

Convergence can be analyzed in two methods, namely β-convergence and σ-convergence (Eckey & Türck, 2007). β-convergence occurs when the poor region grows faster than the rich region and is called absolute convergence. Here, the coefficient of β is estimated without structural variables because the economy is not considered different. If the region's economy has different structure with the same initial conditions, to achieve the same per capita GDP in the long term is called conditional convergence whereas σ-convergence is the measurement of the dispersion of per capita income that is based on coefficient of variations. When the disparities of per capita income cross-sectional are reduced between the time, it means that σ-convergence exists (Carrion-i-Silvestre & German-Soto, 2008; Monfort, 2008). Meanwhile, β-convergence can be obtained by regression of income growth with initial income (Barro & Sala-i-Martin, 1991).

There are some approaches of methodology used to measure the convergence that is based on cross sectional data, such as used by Barro (1991); Barro and Sala-i-Martin (1991, 1995) and time series data approach used by Bernard and Durlauf (1995), where use of time series data always called by stochastic convergence and tested with Augmented Dickey-Fuller (ADF). Now, an approach has been developed combining the two approaches that is panel data approach such as used by Islam (1995), Gaulier, Hurlin, and Jean-Pierre (1999), Choi (2009), and Suresh and Kumar (2011).

**LITERATURE REVIEW**

Study on the disparities has been conducted by many economists, either among countries or among regions in a country. Many factors contribute to disparities. Results of research conducted by Gaulier et al. (1999) and Karras (2010) using panel data showed absolute convergence in Europe. Results of research studied by Suresh and Kumar (2011) using panel data in India concluded that in pre-reform period, per capita income indicated convergence, but after reform since 1991, leads to divergence process effects.

Research studied by Kokko, Ljungwall, and Tingvall (2010) in China used the variables per capita income, growth of fixed capital, population growth, and high educated population ratio, and also distinguishes among developed regions as the growth pole, and poor regions as hinterland. The results showed that although it has positive pattern overall and interdependence growth, it did not show a positive spillover growth among growth pole areas with the directly adjacent hinterland. On the contrary, it tends to be independent and even showed a negative correlation to economic growth.

Meanwhile, research done by Andreano, Laureti, and Postiglione (2013) in Middle-East and North Africa countries using data in period 1950–2007 concluded that absolute

β-convergence did not exist, with half-life of about 150 years. However, conditional β-convergence existed with speed of convergence about 1,495%. The variables that determined convergence are completion rate of primary education, government expenditure to GDP ratio, net export to GDP ratio, number of patent, standard deviation of per capita GDP, average of world bank indicators, that is, the effectiveness of institution, institutional reliability, political stability, regulatory quality, normative quality, and control on corruption, and also variables average of indicator of political right and civil liberties.

Some results of the research conducted in several regions in Indonesia showed the existence of economic growth convergence among provinces in Indonesia as a whole and in the eastern part of Indonesia (Resosudarmo & Vidyattama, 2006; Tajerin, 2007; Hill, Resosudarmo, & Vidyattama, 2007; Aritenang, 2010). In contrast, research studied by Gama (2007) regarding inter-districts in Bali Province, and Heriqbaldi (2009) regarding inter-provinces in Javanese island, both showed the divergence.

## METHODOLOGY AND DATA

This research aims to test whether or not the occurrence of the convergence of per capita income growth among districts in Aceh Province of Indonesia happened after the political economic reform. The data used are secondary data accessed from Statistics Indonesia publications which cover all districts/cities in Aceh Province for period 2001 to 2012 (post Indonesian political economic reform). The data is classified into three groups, namely: Aceh-13 (data for 13 districts at the beginning of decentralization). Then, Aceh-23 (whole of districts in Aceh Province after the ongoing proliferation of districts 2008 – 2012), and Aceh-10 is reintegration region if all districts proliferation is reintegrated to the parent region.

The convergence model is used in this research to measure per capita income convergence, that is β-convergence and σ-convergence which was introduced by Baumol (1986) and developed by Barro and Sala-i-Martin (1991; 2004), and applied by some researchers such as Lei and Yao (2008), and Agarwalla and Pangotra (2011).

To estimate the static disparities of per capita income, σ-convergence is used. The coefficient of variation is used to measure it (Lei & Yao, 2008), that is:

$$CV = \frac{\sqrt{\frac{\sum(y_i - \bar{y})^2}{n}}}{\bar{y}} \qquad (5)$$

where $y_i$ is per capita income of district and $\bar{y}$ is average per capita income of province.

Absolute β-convergence is used to estimate per capita income growth to its initial income (Lei & Yao, 2008). To obtain the estimated coefficients, panel data regression equation is used:

$$\frac{\ln(y_{i,T}) - \ln(y_{i,t-1})}{T} = \alpha + \beta\ln(y_{i,t-1}) + u_{i,t} \qquad (6)$$

where T indicates time period from beginning (t − 1) to the end of period while y describes per capita income, and i indicates district. Positive β value indicates the divergence, in contrast, negative indicates convergence along the period. Further, obtaining the conditional β-convergence is done by identifying the factors that contribute to the increase of convergence acceleration. Therefore, β-convergenceis estimated by:

$$\frac{\ln(y_{i,T} + y_{i,t-1})}{T} = \alpha + \beta\ln(y_{i,t-1})$$

$$+ \sum_{j=1}^{k} \theta_j \ln(X_{i,t-1}^j) + u_{i,t} \qquad (7)$$

where $X_{i,t-1}^{j} X_{i,t-1}^{j}$ is indicated variable which contribute to per capita income growth, that is agglomeration, knowledge spillover, and government policy; j = 1, 2, …, k. In this study, the variables used are agglomeration which is controlled by population density variable (PD) and geographic concentration (GC). Knowledge spillover is controlled by the amount of teachers in junior and senior high school (TCH), and government policy is controlled by direct government expenditure per kilometers (DGE).

To analyze the time achievement of convergence, half-life model of convergence is used which is derived from convergence model (Paas & Schilitte, 2006; Li & Huang, 2006), that is:

$$H = \frac{-\ln(2)}{\lambda} \qquad (8)$$

Half-life is the time needed by a district to reduce disparities to become a half towards steady-state (Barro & Sala-i-Martin, 2004; Paas & Schilitte, 2006; Li & Huang, 2006). Meanwhile, λ is the speed of convergence (Paas & Schilitte, 2006; Li & Huang, 2006), that is:

$$\lambda = \frac{-\ln(1 + \beta)}{T} \qquad (9)$$

## RESULTS AND EMPIRICAL ANALYSIS

### Sigma Convergence (σ-Convergence)

Coefficient of variation is used to measure static disparities among districts. Figure 4 (panel a) shows the trend of coefficient of variation of per capita income growth among districts in Aceh Province that proves the existence of σ-convergence, either in Aceh-13, Aceh-23, or reintegration of Aceh-10. Panel b, c, and d explained the relationship of per capita income (in natural logarithm) with its growth showing the negative correlation. It means that the districts

with higher per capita income grow lower than the districts with lower per capita income.

### Absolute β-Convergence

To determine if a series of data comes from the normal distribution, normality test is needed. The normality test used is Jarque-Bera Test. Based on the result of JB test, the per capita income data was not normally distributed in Aceh-13, Aceh-23, and Aceh-10 (see Table 1). Furthermore, unit root test is used to analyze the stationary data, as listed in Table 1.

Table 1 explains the absence of unit root in per capita income growth in the Aceh Province, for all categories test, namely, LLC, IPS, ADF, and PP at the level. With respect to the freedom of unit root problems, the data did not distributed normally as analyzed using the Estimated Generalized Least Squares (EGLS). Table 2 shows the appropriate estimated approach, that is, Fixed Effects Method (FEM). All three estimation show the negative signs that means absolute convergence occur in the three categories of Aceh. However, Aceh-23 shows the shortest half-life, that is 15.23 years, and speed of convergence is about 4.55% per year.

This explains that proliferation of regions in Aceh Province of Indonesia indicated the successful reduction of disparities among districts in period 2001 to 2012. Reintegration to Aceh-10 shows worse than Aceh-13. The low half-life achieved in Aceh-23 compared to Aceh-13 indicated that proliferation of districts in Aceh Province has given wide chance to the new autonomy districts in developing their economy. By means of greater autonomy, head of district has more power to develop the local policies to motivate the local economy growth.

### Conditional β-Convergence

Analysis of conditional β-convergence is used to examine the variables that explain the growth.

**Table 1.**
*Pooled Unit Root Test and Test for Normality*

| Methods | Aceh-13 | Aceh-23 | Aceh-10 |
|---|---|---|---|
| LLC | -40.5373*** | -25.2054*** | -12.7033*** |
| IPS | -21.5983*** | -4.1542*** | -8.9386*** |
| ADF | 115.3440*** | 69.9822** | 97.0919*** |
| PP | 151.5880*** | 80.9956*** | 125.2300*** |
| Jarque-Bera | 5,645.1130*** | 1,360.6360*** | 16,779.5900*** |

***significance at $\alpha = 0.01$    **significance at $\alpha = 0.05$

**Table 2.**
*Coefficients of Estimation*

| | Aceh-13 | Aceh-23 | Aceh-10 |
|---|---|---|---|
| Pooled EGLS | -0.0997*** | 0.1153 | 0.0121 |
| FEM | -0.1083*** | -0.2036*** | -0.0911*** |
| REM | -0.0562 | 0.0712 | -0.0195 |
| $\lambda$ (speed of convergence)(%) | 0,88 | 4.55 | 0.80 |
| Half-Life (years) | 79.19 | 15.23 | 87.06 |

***significance at $\alpha = 0.01$

All variables have to be tested for normality and stationary. Result of JB test shows that none of variables used is normally distributed (see Table 3). Furthermore, test for stochastic unit root as suggested by several researchers was also conducted (Dogan, Volkan, & Burcu, 2010). There is no unit root between variables tested. All results of LLC, IPS, ADF, and PP are significant at $\alpha = 0.01$, which means that the whole data is stationary at level.

Here specially, Aceh-10 is not analyzed since the absolute $\beta$-convergence analysis shows the worst result. According to the test for normality, which does not show the normality of data, the Estimated Generalized Least Squares (EGLS) is used. FEM with White cross-section approach is the best choice method for the analysis.

Table 4 shows conditional $\beta$-convergence that occur in Aceh-13 and Aceh-23, which is indicated by the coefficient of regression of per capita income growth to the initial growth [G(-1)] that have negative sign, -0.0994 and -0.2894 respectively. The coefficient for Aceh-23, which is higher than Aceh-13, indicated a more rapid convergence of growth after proliferation of districts. The condition is also showed by speed of convergence of Aceh-23 of about 6.83% a year is higher than Aceh-13's 0.87%. It means that Aceh-23 will be able to reach steady-state 10.14 years shorter than Aceh-13. It explains that

**Table 3.**
*Pooled Unit Root and Test for Normality*

| Methods | Aceh-13 | Aceh-23 |
|---|---|---|
| LLC | -39.5399*** | -25.8639*** |
| IPS | -12.1499*** | -5.46483*** |
| ADF | 257.020*** | 285.280** |
| PP | 340.859*** | 386.715*** |
| **Variables** | **Jarque-Bera (JB) Test** | |
| G | 5,645.11*** | 1630.64*** |
| PD | 176.21*** | 27.13*** |
| GC | 3,529.75*** | 40.06*** |
| TCH | 12.31*** | 2.44 |
| DGE | 53.13*** | 44.65*** |

***significance at $\alpha = 0.01$

**Table 4.**
*Results of Estimation for Conditional β-Convergence*

| Variables | Aceh-13 | Aceh-23 |
|---|---|---|
| C | 43.6218 | 67.7365 |
| G(-1) | -0.0994*** | -0.2894*** |
| PD | -27.1523*** | -38.4490*** |
| GC | 27.7600 | -101.9630 |
| TCH | 0.9055 | 3.9090 |
| DGE | 4.3264* | 4.5382** |
| λ (speed of convergence)(%) | 0.87 | 6.83 |
| Half-Life (years) | 79.47 | 10.14 |

***significance at $\alpha = 0.01$   **significance at $\alpha = 0.05$     *significance at $\alpha = 0.10$

certain factors become crucial to shorten half-life and improve speed of convergence.

There are two variables that are statistically significant for Aceh-13: population density (PD) and direct government expenditure per kilometers (DGE). However, for the DGE of Aceh-23, there is an increasing level of significance from 10% to 5%. It describes that DGE variable becomes more important after the proliferation of districts. PD has negative correlation to per capita income growth, both in Aceh-13 and Aceh-23. It indicates that the dense population no longer serves as the driven factor for economic growth.

North Aceh District is called the petro dollar region before the political economic reform because of having extraordinary economic development; however, it tends to have the diminishing growth although concentration of population is high. These results are also consistent to the result of numerous studies, such as that of Henderson (2003, as cited in Cerina & Mureddu, 2014) which suggested that urbanization essentially has no promotion effect of growth significantly, and Acemoglu et al. (2002, as cited in Latzko, 2013), which found that population density was not a good proxy for economic welfare. Moreover, the research by Bosker (2007, as cited in Davis & Hashimoto, 2014), which specifically examine European, stated that on the average, spread of employment opportunities tend to diminish the growth of GDP.

The description above shows clearly that high population density is not a good proximity to generate economic growth in Aceh Province. It also can be explained that the population density in the relationship to the diminishing economic growth is not only the phenomenon of the developed countries such as Europe but also of underdeveloped countries, such as Indonesia, specifically in the Aceh Province. Meanwhile, DGE has positive sign, indicating that DGE is very important in enhancing the growth of per capita income. The significance of DGE in Aceh-23 can be observed after the district proliferation. The role of DGE is stronger in promoting economic growth. It is obvious that an increase in DGE does not generate regional economic growth directly, but the increase of DGE in providing public facilities or public goods has provided more opportunities to develop the economic sectors, either formal or informal sector.

Some studies show that government expenditure has no clear correlation to economic growth. Some have a positive correlation, but the others are negative. Even some do not have correlation. However, several countries have shown a positive correlation, such as Australia, Canada, Finland, New Zealand, Spain, Sweden, United Kingdom, and USA (Attari & Javed, 2013). Furthermore, GC and TCH have positive sign in Aceh-13. However, the two do not show statistical significance. In Aceh-23, GC gives a negative sign, which indicates that GC no longer serves as growth driver. In fact, it may slow the growth down, as explained by Cerina and Mureddu (2014), where the agglomeration has negative correlation with growth. It is also appropriate to Williamson's hypothesis that agglomeration will increase economic growth to a certain level of economic development. Several studies also suggested that the relationship between industrial concentration and economic growth is highly dependent on the level of economic development, so that some of have a positive correlation, while others are negative (Davis & Hashimoto, 2014).

The insignificance of TCH and a very low coefficient indicate that teachers are unable to provide a strong spillover in Aceh-13. This confirms that the lower spillover cause low productivities of population in increasing the growth of per capita income. This condition can also occur by assuming that the university participation rate is high. It means that secondary school graduates do not engage in regional economic activities, so that, although the capabilities of graduated resources improve, it gave no spillover to productive economic activities and growth.

Labor migration, either to continue their education or find a job to other regions, have negative impact for regional/district economic growth. Although it was statistically not significant, TCH has to be a concern, especially in distribution of subject of sciences, because it has positive sign even though it is not significant. Along with that, several studies about the relationship of human capital to growth shows the varying results, on the one hand there is a positive relation, but on the other hand there is a

negative relation to economic growth, although it is still claimed as a positive factor to growth (Čadil, Petkovová, & Blatná, 2014; Kuwahara, 2013).

Although some variables were partially not significant statistically, overall they are significant as showed by F test: 3.0921 for Aceh-13 and 2.0377 for Aceh-23 and significant at α = 0.01. The regression results also showed that some districts have positive fixed effect in Aceh-13. Banda Aceh City has the highest positive fixed effects, as the center of economic growth in Aceh Province. Another four districts (Sabang City, Great Aceh District, Pidie District, and Bireuen District) which also have positive fixed effects, are the closest districts to Banda Aceh City, either directly bordered or not. These districts can be reached within one to four hours by car driving.

When viewed from geographical side, all districts which have positive fixed effect are located on the northern to eastern coast. In Aceh-23, Banda Aceh City still shows the highest positive fixed effect, and followed by the four aforementioned districts, plus one new autonomy district. Besides, there are three other districts which also have positive fixed effects, two of which lay on northern coast to eastern, namely Lhokseumawe City and Langsa City. The other one is in western coast to southern, namely Southwest Aceh District. It can be explained that the district with good transportation facilities or infrastructures can generate the positive effect on economic growth. The only city which has no positive effects is Subulussalam City located in the far southwestern coast. It can be identified as the poor infrastructure region, and to reach it takes more than 10 hours driving from Banda Aceh City.

Looking from the three measurements of convergence, it proved that autonomy decentralization that gave wide authority to the local governments have driven them to drive the economic development and manage the local finance better. Thus, the aftermath districts proliferation in period 2001-2012 has been able to lower the disparities of per capita income growth in Aceh Province. This condition was proved by the DGE variable as there is more significant effect of the aftermath proliferation of districts. This indicates that decentralization has reduced disparities among districts in Aceh Province.

## CONCLUSION

The high speed of convergence and the low half-life in Aceh-23 indicated that proliferation of districts was able to drive per capita income growth in Aceh Province, especially in district regions. The more significant DGE and the positive sign of the aftermath proliferation of districts (Aceh-23) indicated that autonomy decentralization has been able to reduce disparities among districts. This explained the success of economic development by decentralization concept as the implementation of political economic reform in Indonesia. DGE becomes a driving factor for growth of regional economic in the Province of Aceh. Decentralization gave a wide authority to regional or local governments to organize and manage the local finance and to manage local economic development better to achieve better welfare of communities. The success of reducing disparities is described in the three measurements of convergence: sigma convergence, absolutes, and conditional beta convergence.

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