FACTORS AFFECTING THE ECONOMIC GROWTH IN SPECIAL REGIONS YOGYAKARTA (VECTOR ERROR CORECCTION MODEL APPROACH)

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Abstract: Factors Affecting The Econommic Growth In Special Regions Yogyakarta (Vector Error Correction Model Aprroach). The main objective of this study was to analyze the influence of local revenue, the consumer price index and labor force to economic growth in DIY in the short term and long term. The data used is data time series period 1983- 2013, published by the Central Statistics Agency of Yogyakarta Special Region. While the analysis method used is using the model Vector Error Correction Model is a method derived from the VAR. Based on the results of this study concluded that the variable revenue positive and significant impact on economic growth in the short term. However, the variable revenue have a negative impact although no significant effect on economic growth in the long term. Variable Consumer Price Index is negative and significant effect on economic growth in the short term. But variable Consumer Price Index has a positive impact and no significant effect on economic growth in the long term. Variable Work Force a significant negative effect on economic growth in the short term. However, the variable Work Force has a negative and significant impact on economic growth in the long term.

Abstrak: Faktor-Faktor yang Mempengaruhi Pertumbuhan Ekonomi Di Daerah Istimewa Yogyakarta (Pendekatan Model Vektor Koreksi Kesalahan). Tujuan utama dari penelitian ini adalah untuk menganalisis pengaruh pendapatan asli daerah, indeks harga konsumen dan angkatan kerja terhadap pertumbuhan ekonomi di DIY dalam jangka pendek dan jangka panjang. Data yang digunakan adalah data time series periode 1983 - 2013, yang diterbitkan oleh Badan Pusat Statistik Daerah Istimewa Yogyakarta. Sedangkan metode analisis yang digunakan adalah dengan menggunakan model Vector Error Correction Model yang merupakan metode yang berasal dari VAR. Berdasarkan hasil penelitian ini disimpulkan bahwa variabel pendapatan berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi dalam jangka pendek. Namun, variabel pendapatan memiliki dampak negatif meski tidak berpengaruh signifikan terhadap pertumbuhan ekonomi dalam jangka panjang. Variabel Indeks Harga Konsumen berpengaruh negatif dan signifikan terhadap pertumbuhan ekonomi dalam jangka pendek. Namun variabel Consumer Price Index memiliki dampak positif dan tidak berpengaruh signifikan terhadap pertumbuhan ekonomi dalam jangka panjang. Variabel Work Force berpengaruh signifikan terhadap pertumbuhan ekonomi dalam jangka pendek. Namun, variabel Work Force memiliki dampak negatif dan signifikan terhadap pertumbuhan ekonomi dalam jangka panjang.

Kata Kunci: Pendapatan, Indeks Harga Konsumen, Tenaga Kerja, Pertumbuhan Penduduk, dan Model Koreksi Kesalahan Vektor.

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BACKGROUND

Effective regional autonomy implemented starting January 1, 2001 based on the Act No. 32 of 2004 describes the regional administration gives full authority for each area of the provincial, district or city to organize and manage household regions with little government interference center. And Law No. 33 of 2004 on the financial balance between central and local governments. This policy is a challenge and an opportunity for local governments because local governments have greater authority to manage its resources efficiently and effectively. One of the opportunities, challenges and constraints facing the region is a matter of readiness of the sources of financing or the region's ability to implement domestic affairs independently. Where the purpose of the Autonomous Region itself, namely to promote economic growth, regional development, minimize regional disparities and increasing the quantity of public services (Andirfa, 2009).

The economic growth of a region is the development of activities in the economy that led to the goods and services produced in the community grows so will increase the prosperity of the community (Sukirno, 1994). According to Boediono, the economic growth is the increase in output per capita in the long run. Meanwhile, according to Lincolin (1997), economic growth is defined as the increase in GDP or GNP, regardless of whether the increase is larger or smaller than the population growth rate, and whether there is a change of economic structure or not.

Economic growth in an area can be caused by many factors. For developed regions, they can rely on the production of their goods and services, but did not rule out also their lending they are doing as well as their investment. As for the developing regions will of course be difficult or it can be said is not easy if you have to rely on the factors of production of goods and services, and therefore other factors that determine, such as loans and investments.

In the history of economic thought, the expert economist who discusses the process of economic growth can be grouped into four streams that flow Classical, Neoclassical, Schumpeter and Post Keynesian. Economists who were born between the 18th and beginning of the 20th century, commonly classified as a stream or the Classic. Or the classic flow is differentiated into two groups, namely: the flow of Classical and Neo-Classical flow. The second group of skilled experts Classical and Neo-Classical economics, largely shed its attention on analyzing the characteristics of community activities in the short term, only a few were analyzed on the question of economic growth. Lack of attention to both these groups on economic growth caused mainly by the view they are inherited from the opinion of Adam Smith, who believes that the market mechanism would create an economy to function efficiently.

Based on the background and the formulation of the problem described above, the purpose to be achieved through this research are:
1. To determine the influence of the original income (PAD) on economic growth in DIY in the short term and long term.
2. To determine the influence of labor force (AK) on economic growth in DIY in the short term and long term.
3. To determine the influence of the Consumer Price Index (CPI) on economic growth in DIY in the short term and long term.

In economics there are many theories of economic growth. The theories regarding the dynamics of economic growth developed by thinkers of the flow of economic growth theory of Adam Smith, David Ricardo's economic growth, economic growth theory Harrod Domar (approach Neo-Keynes), and the theory of economic growth Solow-Swan (Approach Neo-Classic).

Adam Smith was the first economist who shed much attention to the issues of economic growth. In his book An inquiry into the Nature and Causes of the Wealth of nations (1776) argued about the process of economic growth in the long term systematically.

An outline of David Ricardo's economic growth is not much different from the theories of Adam Smith, namely that the growth process is still in the mix between the population growth rate and the growth rate of output. Besides Ricardo also assume that the number of production factors of land (natural resources) can not grow and eventually become a limiting factor in the growth process of a society. Ricardo's theory was first expressed in his book entitled The Principles of Political Economy and Taxation (1917).

Harrod-Domar growth theory is an extension of the analysis of Keynes on national economic activity and labor problems. Analysis Keynes considered incomplete because it does not discuss long-term economic problems. Harrod-Domar theory is analyzing the requirements needed so that the economy can grow and thrive in the long term. In other words, this theory tries to show the conditions needed so that the economy can grow and develop steadily.

Local Revenue (PAD) is one source of revenue. Hopefully, by the receipt of revenue (PAD) can boost regional economic growth and will impact on the National Economic Growth. This theory is supported by studies Harianto and Adi (2007) and Bati (2009) which states that the original income (PAD) positive and significant impact on economic growth.

A large work force will be formed from a large population. However, population growth could cause significant adverse effects on economic growth. According to Todaro (2000) rapid population growth encourages the emergence of the problem of underdevelopment and create prospects for development are becoming increasingly distant. Furthermore it is said that the population problem arises not because of the large number of family members, but because they are concentrated in urban areas as a result of the rapid pace of migration from rural to urban. However, the number of people with a fairly high level of education and have the skill to be able to drive economic growth. From the number of productive age population is large it will be able to increase the amount of available labor force and will eventually be able to increase production output in an area. This theory is supported by studies (Efrizal Hasan, Syamsul Amar, Ali Anis) stating that the Work Force (AK) positive and significant impact on economic growth.

The Consumer Price Index can be used as a measure of inflation, in which is reflected the development of a variety of goods and services. CPI also is an indicator of economic stability in the sense that the stability of the economy can be seen from the rate of inflation, while high inflation economic stability will be disturbed because people no longer able to purchase various necessities of life. Kadiman (2005) describes "Sustainable development in addition is characterized by relatively high economic growth also characterized by maintaining economic stability. So we can conclude that the Consumer Price Index (CPI) negatively affect economic growth.

In this study, the object under study only focused on the effect of revenue (PAD), Work Force (AK) and the Consumer Price Index (CPI) on Economic Growth (GDRP) of the year 1983 to 2013 in the province of Yogyakarta.

METHOD OF DATA ANALYSIS

In this study using a model VECM (Vector Error Correction Model) is a method derived from the VAR. Assumptions need to be met as VAR, but trouble stationary. Unlike the VAR, VECM must be stationary on the first differentiation and all variables

must have the same stationary that is differentiated in the first instance. The models in this study are as follows:

$$GDRP_{1t} = \alpha_{10} + \sum_{m-1}^{n} \alpha_{11} PAD_{1,t-m} + \sum_{m-1}^{n} \alpha_{12} AK_{1,t-m} + \sum_{m-1}^{n} \alpha_{13} CPI_{1,t-m} + \varepsilon_{1t}$$

Where :
GDRP   = Gross Regional Domestic Product (Growth)
PAD   = Local Revenue
AK   = Work Force
CPI   = Consumer Price Index

The economic data time series in general stochastic (trending is not stationary data may have roots units). If the data has a unit root, then its value will tend to fluctuate around its average value, making it difficult to estimate a model. The unit root test is one concept that is increasingly popular lately used to test stationarity time series data. This test developed by Dickey and Fuller, using Augmented Dickey Fuller Test (ADF). Stationarity test that will be used is the ADF (Augmented Dickey Fuller) using a 5% significance level.

VAR estimation are very sensitive to lag length used. Determination of the amount of lag (order) to be used in the VAR model can be determined based on the criteria of Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC) or Quinnon Hannan (HQ). Besides testing the optimal lag length is very useful to eliminate the problem of autocorrelation in the VAR system, so with the use of optimal lag is expected to no longer appear autocorrelation problem.

VAR stability needs to be tested first before doing further analysis, because if the VAR estimation which will be combined with the error correction model is unstable, then the Impulse Response Function and Variance Decomposition becomes invalid.

Causality test is performed to determine whether an endogenous variable can be treated as an exogenous variable. This stems from ignorance influence between variables. If there are two variables y and z, then what causes the z or z y cause y or apply both or no relationship between the two. Variable y cause variable z means how much the value of z in the current period can be explained by the z value in the previous period and the value of y in the previous period. Test the causality between economic growth (GDP) and revenue (PAD), Work Force (AK) and the Consumer Price Index (CPI) based on Granger Causality.

Cointegration test is performed to determine the existence of the relationship between variables, especially in the long term. If there is cointegration in variables used in the model, then certainly their long-term relationship between the variables. The method can be used to test the existence of cointegration is the method of Johansen Cointegration.

The combination of the two series are not stationary, will move in the same direction towards the long-term equilibrium and the differentiation between the two time series will be constant. If so, time series are said to be mutually cointegrated, meaning the variables move together and have a long-term relationship. To test the long-term relationship between economic growth (GDP) and revenue (PAD), Work Force (AK) and the Consumer Price Index (CPI), then we use the Johansen cointegration test. Cointegration tests based approach Autocorrelation Vector Regression (VAR) Johansen. If there is no cointegration relationship, unrestricted VAR models can be applied. But if there is a cointegration relationship between variables, Vector Error Correction models (VECM) is used.

Having known the existence of cointegration, the test process is then performed using methods of error correction. If there are differences in the degree of integration between test variables, testing is done simultaneously (jointly) between the long-term equation by equation error correction, after it emerged that the variables occur cointegration.

The degree of integration of cointegrated variables called Lee and Granger as multicointegration. But if not encountered the phenomenon cointegration, then the test is continued using variables first difference.

VECM is a form of VAR that these restricted due to the existence of the form data is not stationary but cointegrated. VECM often referred to as the design for the series nonstationary VAR that has cointegration relationship. VECM specification restriction long-term relationship of endogenous variables that converge into cointegration relationship, but still allow the existence of short-term dynamics.

IRF analysis is a method used to determine the response of an endogenous variable to shock specific variables. IRF also be used to see the shock on the other variables and how long these effects occur. Through IRF, the response an independent change of one standard deviation can be reviewed. IRF explore the impact of interference by one standard error (standard error) as an innovation in something endogenous variable to variable endoen others. An innovation in one variable, it will directly impact the variable in question, then proceed to all other endogenous variables through the dynamic structure of the VAR. On the other hand, IRFs allows to know the transient response of the variable shock shocknya and other variables. In the context of this study, through IRFs, we can measure the direction, and consistency of the response magnitude Economic Growth (GDP) towards innovation happens revenue (PAD), Work Force (AK) and the Consumer Price Index (CPI).

Forecast Error Variance Decomposition (FEVD) or decomposition of forecast error variance outlines innovation at a variable to another variable components in the VAR. The information presented in FEVD is the proportion of movement sequentially caused by its own shocks and other variables.

RESEARCH RESULT

In this section we will show and discuss the results of the unit root tests, cointegration, Granger Causality, variance decomposition and impulse-response.

Test Stationarity

Based on the stationary test results are as follows:

Tabel 1
Unit Root Test Results

| Variable | Root Test Results | | | |
| | Level | | First Difference | |
	ADF	Prob	ADF	Prob
1. PDRB	2.587455	1.0000	-3.033598	0.0435
2. PAD	5.297933	1.0000	-9.779920	0.0000
3. CPI	3.028671	1.0000	-4.085639	0.0037
4. AK	-0.880905	0.7803	-6.076403	0.0000

The test results indicate that all the variables are not stationary at level. To test the unit root test continued at the level of the first difference. Results of testing the unit root test in first difference indicates that all significant variables at 5% or all of the variables in this study stationary 1st difference.

Since the results of cointegration test is sensitive to lag structure is chosen, it will be determined beforehand appropriate lag structure. Determining the optimum lag value using Akaike Information Criterion (AIC) of VAR models. Lowest AIC value indicates the amount of lag that is most optimal for research. The test results obtained as follows:

Table 2
The Optimum Lag Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1307.360	NA	1.81e+37	97.13778	97.32975	97.19486
1	-1269.283	62.05169	3.58e+36	95.50243	96.46231*	95.78785
2	-1249.029	27.00551	2.85e+36	95.18731	96.91509	95.70107
3	-1220.946	29.12230*	1.48e+36*	94.29233*	96.78802	95.03443*

* indicates lag order selected by the criterion

The test results showed that based on the size of the Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC) and Hannan Quinn Information Criteria (HQ) obtained that obtained at the optimum lag lag 3.

A model is said to have stability if the inverse roots modulus characteristics having no more than one and all are within the unit circle. If most of the modulus are inside the circle it can be said quite stable models. On the contrary, if most of the modulus is outside the circle then it could be said to be a model less stable. According to the table below shows that the roots of the characteristic value or modulus all showed less than 1.

Table 3
Stability Test Results

Root	Modulus
0.946790	0.946790
-0.200028 - 0.710797i	0.738406
-0.200028 + 0.710797i	0.738406
-0.641522 - 0.191238i	0.669419
-0.641522 + 0.191238i	0.669419
0.304147	0.304147
-0.189761	0.189761
0.116020	0.116020

Based on these test results, a VAR system is stable if the entire root or roots of its own modulus smaller than one. In this study, based on the VAR stability test shown in the table above it can be concluded that the stability of the VAR estimates that will be used for the analysis of IRF and FEVD has been stable since the range of modulus <1.

Johansen co integration testing method is done by comparing the trace statistic or Max-Eigen with each of the standard 5%. If the value of the trace statistic or Max-Eigen larger than the critical value of its value- then there is cointegration between variables. In addition, it can also be seen from the p-value or the value of the probability of a t-statistic, if the p-value of less than 5% of data has cointegrated. Conversely, if the p-value is greater than 5%, the data is not cointegrated. Cointegration test can also be used to look at the level of the balance. If the value of the trace statistic is less than the value of critical value, the data undergo a short-term equilibrium. However, if the value of the trace statistic is greater than the critical value, the data undergo long-term balance. If the data cointegrated and experiencing long-term balance, it can use the VECM.

In this study Johansesn Cointegration Test on the assumption of no intercept and trends in CE or test VAR Schwarz Criteria based selection criteria. Johansen cointegration test results are summarized in the following table:

Table 4
Johansesn Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.828009	75.00351	47.85613	0.0000
At most 1	0.541676	27.47511	29.79707	0.0905
At most 2	0.205413	6.410284	15.49471	0.6470
At most 3	0.007457	0.202091	3.841466	0.6530

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The test results showed that the value of 75.00351 trace statistic is greater than the critical value of 5% of 47.85613 with a p-value of 0.0000. The same thing happened at the Max-Eigen value statistic of 47.52840 greater than the critical value of 5% of 27.58434 and the p-value of less than 5% is 0.0000. It shows that the variables of the study have experienced cointegration or have shown a long-term relationship and there is a balance in the period. With the presence of cointegration, the method used in this study is the Vector Error Correction Model (VECM).

Based on the above table can be seen that the trace statistics and maximum eigenvalue at r = 0 is greater than the critical value at 5% significance level. This means that the null hypothesis that no cointegration is rejected and the alternative hypothesis which states that there is a cointegration is accepted. Based on the econometric analysis of the above it can be seen that among the four variables in this study, there are two cointegration at the 5% significance level. Thus, of the cointegration tests indicate that between the movement of the GDP, PAD, AK, and CPI have a relationship of stability or balance and equality movement in the long term. In other words, in every period of the short term, all the variables tend to adjust to each other in order to achieve its long-term equilibrium.

Table 5
Granger Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
PAD does not Granger Cause PDRB	28	0.83199	0.4912
PDRB does not Granger Cause PAD		1.18353	0.3399
CPI does not Granger Cause PDRB	28	2.14002	0.1255
PDRB does not Granger Cause CPI		2.33577	0.1030
AK does not Granger Cause PDRB	28	4.28908	0.0165
PDRB does not Granger Cause AK		3.21661	0.0436
CPI does not Granger Cause PAD	28	3.98821	0.0215
PAD does not Granger Cause CPI		0.13908	0.9355
AK does not Granger Cause PAD	28	2.38220	0.0983
PAD does not Granger Cause AK		2.08772	0.1324
AK does not Granger Cause CPI	28	0.67120	0.5792
CPI does not Granger Cause AK		3.75100	0.0266

From the results obtained above, it is known that has a causal relationship is one that has a smaller probability value of the alpha Ho 0:05 so that later will be rejected, which means a variable will affect other variables. Granger test of the above, we know the reciprocal or causality as follows.

Variable GRDP was not statistically significantly affect the variable PAD (0.4912) so we accept the null hypothesis, while the PAD variables were not statistically significantly affect the GDP variable (0.3399) so we accept the null hypothesis. Thus, it was concluded that there is no causality whatsoever for both variable the GDRP and PAD variables.

a. Variable GRDP was not statistically significant variable affecting the CPI (0.1255) so we accept the null hypothesis while the CPI variable was not statistically significant affect the GRDP variable (0.1030) so we accept the null hypothesis. Thus, it was concluded that there is no causality whatsoever for both variables the GDP and CPI variables.

b. Variable PDRB statistically significant variable affecting AK (0.0165) so we reject the null hypothesis while AK variables are statistically significant affecting the GDP variable (0.0436) so we reject the null hypothesis. Thus, it was concluded that there is a two-way causality between the GDP variables and variables AK.

c. Variable PAD statistically significant variable affecting the CPI (0.0215) so we reject the null hypothesis while the CPI variable was not statistically significant affect the PAD variable (0.9355) so we accept the null hypothesis. Thus, it was concluded that there is a unidirectional causality between variables and variable PAD CPI is the only variable that statistically PAD affecting the CPI variable and not vice-versa.

d. Variable PAD was not statistically significant variable affecting AK (0.0983) so we accept the null hypothesis while AK variables were not statistically significantly affect the variable PAD (0.1324) so we accept the null hypothesis. Thus, it was concluded that there is no causality whatsoever for both variable and variable PAD AK.

e. CPI variable was not statistically significant variable affecting AK (0.5792) so we accept the null hypothesis while AK variables are statistically significant variable affecting the CPI (0.0266) so we reject the null hypothesis. Thus, it was concluded that there is a unidirectional causality between variables and variable CPI AK AK is the only variable that statistically affects the CPI variable and not vice-versa.

Based on the results presented in the table, in the short term there are eight significant variables on the real level of five per cent plus one variable error correction. Variables significant at 5% significance level is the regional gross domestic product at lag 2 and 3, the local revenue at lag 1 and 3, the consumer price index in the second lag, the workforce at lag 1 and 2. The existence of the alleged error correction parameter significant prove their mechanism of adjustment of short-term and long-term. The magnitude of the adjustment of the short-term to long-term is -0.15.

Table 6
Factors Affecting Change in Short-Term Economic Growth

Variabel	Koefisien	t statistic
CointEq1	-0.150290	[-5.05339]
D(PDRB(-1))	0.480283	[1.82236]
D(PDRB(-2))	-0.851939	[-3.40901]
D(PDRB(-3))	-1.110121	[-3.45763]
D(PAD(-1))	-0.000258	[-3.50660]
D(PAD(-2))	9.06E-05	[0.87771]
D(PAD(-3))	0.000276	[4.76146]
D(CPI(-1))	3552.241	[1.91292]
D(CPI(-2))	-3865.026	[-2.65922]
D(CPI(-3))	-3257.748	[-1.69523]
D(AK(-1))	-1.407218	[-7.36692]
D(AK(-2))	-1.363328	[-5.51446]
D(AK(-3))	257688.7	[-0.41258]
C	-0.080354	[5.93115]

estimation results indicate that the regional gross domestic product variables on the lag to 2 negative effect, the real level of 5% each of -0.851939. That is, if there is an increase of 1 million in the previous 2 years, it will lower the regional gross domestic product amounted -0.851939 million in the current year. If an increase in local revenues amounted to 1 million in the previous 3 years, there will be an increase in regional gross domestic product amounted to 0.000276 million a year now. If an increase in the consumer price index by 1% in the previous 2 years, it will cause a decline in regional gross domestic product amounted to -3.865 million in the current year. If an increase in the labor force amounted to one worker at 1 and 2 years earlier, it will cause a decline in regional gross domestic product amounted to -1.4 jutan and -1.36 million in the year now.

Table 7
Factors that influence changes in the Long Term Economic Growth.

| Variabel	Koefisien	T statistik
PAD(-1)	-0.000819	-1.02434
CPI(-1)	117.5953	0.04326
AK(-1)	-4.711909	-4.63706

In the long term only variable labor force is significant on the real level that affects five percent economic growth. Variable Work Force has a negative effect on economic growth is equal to -4.711909. That is, if an increase in labor force by 1 unit, it will cause the GDRP fell by -4.71 million. This condition is contrary to the theory that when the Labor Force increases, the Economic Growth will also rise.

In addition, this VECM models have a value of F statistic of 9.700489 so that it can be said that their value is significant. This means that all variable local revenue, Work Force and the Consumer Price Index simultaneously affect the variables Economic Growth. The coefficient of determination R Square 0.906 with correction adjustment value Adj.R-squared of 0.813 indicates that the model chosen is very good. All independent variables are able to explain the dependent variable of 90.6 %, while the rest is explained by other variables.

Response of PDRB:

Period	PDRB	PAD	IHK	AK
1	49130.42	0.000000	0.000000	0.000000
2	54945.21	2485.174	-1663.136	-9113.383
3	51581.34	4624.726	1160.965	-1177.763
4	40484.68	12045.30	3396.604	10132.41
5	26919.72	14355.51	4599.297	17234.58
6	13609.23	16340.44	7412.572	23123.97
7	2934.716	17415.49	9536.418	26689.19
8	-4416.327	17604.40	11264.94	27801.59
9	-8301.357	17441.61	12612.95	27432.50
10	-9257.160	17226.60	13512.27	26206.19

n

se given by the GDRP (Growth) as a result of shock PAD shown in the first period, while in the period from 2 to 10 periods a positive effect. This means changes in the GDRP (Growth) resulted in the value of PAD tended to be stable and controlled. The higher the GDP, the level of economic growth that will be generated will also increase. As well as with the response given the GDRP due to the CPI, can be described in the following graph: CPI response to the GDRP

Response of IHK to PDRB
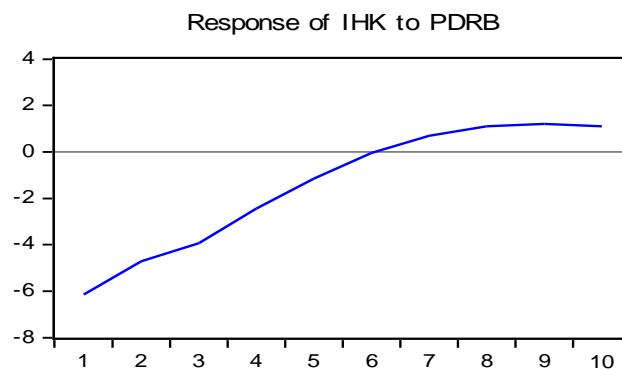
From the picture above shows the CPI variable response to the GDRP variable shock. CPI began to respond to the shock with a positive trend (+) to enter the period of the 8th and the response began to move stable in the period 8th.

Response of AK to PDRB
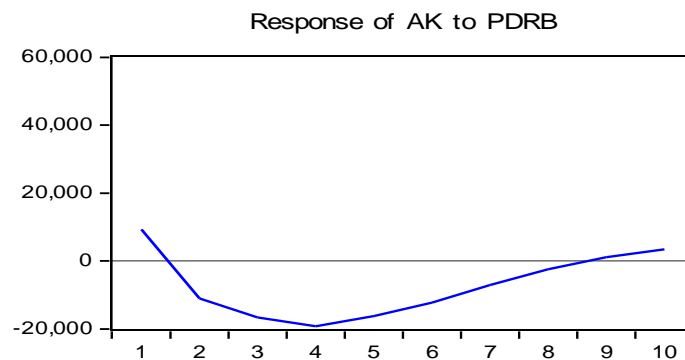
From the picture above shows a variable response AK to the GDRP variable shock. AK beginning to respond to the shock with a negative trend (-) to enter the 4th period and the response began to move up in the 4th period.

Variance Decomposition (VD) explain how variants of a variable is determined by other variables and is also determined from the variable itself. In the table below shows that the test results VD consists of six columns. The first column describes the periodization of time, the second column is the standard error of prediction of the occurrence of shock on each variable, the next column is the predictive power of each variable in the standard of error is formed.

Period	S.E.	GDRP	PAD	CPI	AK
1	49130.42	100.0000	0.000000	0.000000	0.000000
2	74328.79	98.33485	0.111789	0.050066	1.503298
3	90606.44	98.58556	0.335758	0.050111	1.028572
4	100537.7	96.28594	1.708116	0.154838	1.851105
5	106568.1	92.07806	3.334877	0.324074	4.262987
6	111349.2	85.83434	5.208182	0.740004	8.217469
7	116248.9	78.81498	7.022763	1.351904	12.81035
8	121421.0	72.37584	8.539326	2.099922	16.98491
7	116248.9	78.81498	7.022763	1.351904	12.81035
8	121421.0	72.37584	8.539326	2.099922	16.98491
9	126601.0	67.00432	9.752844	2.924162	20.31867
10	131451.9	62.64622	10.76369	3.768955	22.82113

The table shows that in the first period, the GDRP variation can be explained by the GDRP itself is at 100%, while for the variable PAD, CPI and AK can not explain the GDRP variable. Starting from the second to the tenth period, the composition continues to change as a result of the contribution of other variables. In the second period the greatest influence on the variables contained AK of 1.5032 % while variable PAD and CPI contribute very little under 1%. Until the tenth period variables that contribute the greatest is variable AK with a contribution of 22.82 %. At the end of the tenth, PAD formation contributed to the GDRP amounted to 10.76369%, CPI variable to the GDRP amounted to 3.768 % and variable AK to the GDRP amounted to 22.82 %.

CONCLUSION

Based on the analysis of data and discussion that has been done, it can be concluded as follows: Variable revenue positive and significant impact on economic growth in the short term. However, the variable revenue have a negative impact although no significant effect on economic growth in the long term means that if revenue increase will decrease economic growth in the long term. Variable consumer price index is negative and significant effect on economic growth in the short term. But variable consumer price index has a positive impact and no significant effect on economic growth in the long term means that if Inflation increase will decrease economic growth in the long term. Variable labor force a significant negative effect on economic growth in the short term. However, the variable labor force has a negative and significant impact on economic growth in the long term means that if labor force increase will decrease economic growth in the long term. From the analysis result, local government need to do the following steps. The government of Yogyakarta Province is expected to continue to control and improve the original income, which is an important factor in economic growth in the province of Yogyakarta. The government should have been more cautious and selective in making decisions to determine the policies that will be pursued. Determination of appropriate policies related factors that can influence and stimulate economic growth towards a better you should need to see the source of the factors to be used in the best for the welfare of the community.

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