
Building Economics Equilibrium Model Toward Macroeconomic Variables - New Consensus Macroeconomic Approach: Evidence from Indonesia



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ABSTRACT

Debt management and budget deficit in Indonesia is based on ACT No 17 of 2003 and followed by Government Regulation No 23 of 2003, in which government sets maximum limit on government debt of 60 % GDP and maximum limit on budget deficit of 3 %. This concept like Maastricht Treaty which is used in some Europe Countries which are facing high debt and to be default countries, and we worried about it. The weakness of this concept is that does not describe when government is supposed to do the policy deficit, balanced, or surplus budget. As long as GDP increases, government debt can be increased, regardless of whether the economy needs it or not. Debt burden make fiscal space is limited and it has been happened in Indonesia in 1990's. It is important to build a equilibrium model to control debt and budget deficit and the important thing it keep fiscal sustainability and economic growth. Fiscal sustainability is happened if debt is kept stable. This research is conducted by using New Consensus Macroeconomic (MKB) school to make an optimal decision through inter temporal choices. Using micro foundation and adding debt stabilizing deficit variable, Arestis model was elaborated. The result found that deficit debt stabilizer in the model for a long term, gives positive impact on output gaps, the level of prices, exchange rates, current account, and primary budget deficits in Indonesia but it has no impact on the level of interest rates. Conversely, in a short term, debt deficit stabilizer in model gives positive impact toward output gap, exchange rate, and the primary deficit budget but it does not significantly influence interest rates, the level of price, and current account.

JEL Classification: C82; E60; E62.

Keywords: Fiscal Rule, Sustainability, Debt Stabilizing Deficit; Equilibrium Model.

1. INTRODUCTION

Debt management and budget deficit in Indonesia are based on ACT No 17 of 2003. Government set maximum limit on debt ratio of 60 % of GDP and maximum limit on budget deficit ratio of 3 %. The weaknesses of this concept is, debt will increase every year whether the economy needs it or not. As long GDP increase, the debt will always be increased as the debt ratio is not more than 60%. In fact, GDP will always increase because the price increases every year. Indonesia has experienced with this condition in 1997. In that year government debt ratio was 89 % of GDP so that restraints the economic growth is to -13, 2 %. Having those experiences, another concept of debt management is required and budget deficit able to execute the fiscal sustainability and economic stability in the long run. One of management debt and budget deficit properties related to the steady state is debt stabilizing deficit. This is the fiscal rule concept that maintaining the level of budget deficit is stable. The concept of maintaining this stabilization of the debt is known as debt stabilizing deficit. The advantage of this policy is that the fiscal can be sustained (Linnemann and Schabert, 1999). The question is if the concept is implemented in Indonesia, how can it influences the performance of the macroeconomic? This study is a deductive research which examines the implementation of New Consensus Macroeconomics as an economic thinking in a general equilibrium. Are this model is modified by using some assumption, adding fiscal variable in each equation and the model to be debt stabilizing deficit model.

Theoretically and empirically it is find that the budget deficit influences the macroeconomic performance such as economic growth, inflation, interest rate, and exchange rate. Ballassone (2005), for instance, found that the elevating of budget deficit will increase the aggregate and encourage economic growth. Sargent and Wallace (1981) stated that in a long run, budget deficit will influence inflation, but not in short run. Metin (1998) found that in Turkey when budget deficit is increased it will increase the inflation and decrease the domestic revenue. Cebula (1997) described that in the long run, budget deficit will influence the interest rate.

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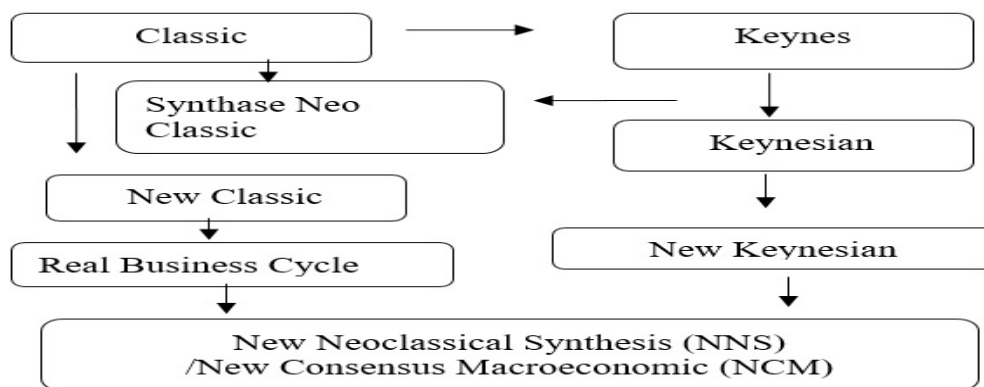
The relation between budget deficit and interest rate is observed by Beare (1978) and Laubach (2009). They found that the increase of budget deficit through the sale of bonds will increase the interest rate and Laubach (2009) also found that when the budget deficit increased 1 % the interest rate will increase 25-30 point base in the long run. Burney (1992) and Bernheim (1988) found that twin deficit, the condition of economy experiences the increasing of budget deficit which will drive the increasing of the real domestic exchange rate. Based on some research, It is needed to conduct a research of building model against the macroeconomic performance in Indonesia (Badinger, 2009).

The school of thought of this study is by utilizing the idea of New Consensus Macroeconomic (NCM). NCM is the latest development of newest macroeconomic concept that is the convergence of New Keynesian and Business Cycle Theory. Aspects which attach to the NCM relatively are in accordance with the economy in Indonesia (Zouache, 2004). First, economic is facing imperfect market competition. Second, the economy in Indonesia often experiences shock particularly from supply shock, such as disaster, technology development, disturbance of goods distribution, and demonstration of workers. Third, agent makes intertemporal choices decision using some relevant information. Fourth, the economy is facing sticky price. Fifth, monetary policy in Indonesia implements Taylor (1979) rule to maintain the stabilization of price through the determination of interest rate target and inflation.

The objective of this research is, first, to estimate the effect of implementing the debt stabilizing deficit model against the macroeconomic performance in Indonesia such as economic output gap, level of domestic price, domestic interest rate, exchange rate, current account, and budget primary deficit; second, to estimate the pattern of output gap response, domestic price level, domestic interest rate, exchange rate, current account, and budget primary deficit when facing shock. The contribution of this research is to give the alternative model of fiscal policy with deficit and government debt controlled. This situation can fulfill the sustainability of fiscal and economic growth in the long run.

2. METHODOLOGY

New Consensus Macroeconomics (NCM) is appropriate with some assumptions established. The terminology of NCM conceptually similar to New Neoclassical Synthesis (NNS). NCM is the convergence concept between the New Keynesian and Real Business Cycle Theory. If the terminology of New Neoclassical Synthesis (NNS) is used, then the thinking tends to use Real Business Cycle Theory that more to use the rationality of decision of the economic and market actors in facing the shock of supply. If New Consensus Macroeconomic (NCM) is used, the thinking tends to use the New Keynesian that put the role of the government.



Source: Insukindro (2010)

Figure 1.
New Consensus Macroeconomic Among Other Economic Thought

NCM has some properties, such as a dynamic model, representative agent, general equilibrium and empiric verification. NCM contains two main elements: optimization between time and the importance of fiscal policy derives from New Keynesian thinking as well as the decision of looking forward price setting as the core of the thinking of the Business Cycle Theory. Those two elements put into a dynamic model to describe the real economic fluctuation. The economic actor's counter imperfect market competition or incomplete market countering the sticky price. This sticky price indicates that the price experiences adaptation but slow.

The initial NCM is developed by Giese and Wagner (2007) by building IS-LM-IA model in a closed economy in monetary policy domination. The economy is assumed of three blocks, finance block, investment block, and consumption block and stock. Model was developing continuously by Tcherneva (2008) by adding the government expenditures variable on IS equation. Arestis model (2009) is stressed and applied to the role of fiscal policy. It is assumed that fiscal policy is seen in the magnitude of output gap equation and central bank controls the rate of inflation and exchange rate. This model consists of six equations reduced forms as follows:

$$Y_{gt} = a_0 + a_1 Y_{gt-1} + a_2 E_t(Y_{gt+1}) + a_3 [R_t - E_t(P_{t+1})] + a_4 (rer)_t + s_1 \quad (1)$$

$$P_t = b_1 Y_{gt} + b_2 P_{t-1} + b_3 E_t(P_{t+1}) + b_4 [E_t(P_{wt+1}) - E_t \Delta(er)_t] + s_2 \quad (2)$$

$$R_t = (1 - c_3)[RR^* + E_t(P_{t+1}) + c_1 \cdot Y_{gt-1} + c_2(P_{t-1} - P^*)] + c_3 \cdot R_{t-1} + s_3 \quad (3)$$

$$(rer)_t = d_0 + d_1 [R_t - E_t(P_{t+1})] - [(R_{wt} - E_t(P_{wt+1}))] + d_2 \cdot (CA)_t + d_3 E(rer)_{t+1} + s_4 \quad (4)$$

$$(CA)_t = e_0 + e_1 (rer)_t + e_2 Y_{gt} + e_3 Y_{gwt} + s_5 \quad (5)$$

$$er_t = rer_t + P_{wt} - P_t \quad (6)$$

In order to focus on fiscal policy effect, these equations are modified by adding debt stabilizing deficit variable in each equation. According to Edwards (2003), the sustainability of fiscal is condition where the government is able to maintain expenditure, tax and other fiscal policy in the long term without any doubt of any default on some of its obligations. The sustainability of fiscal is a condition where State Budget dynamically is able to conduct its function as catalyst and stabilizing of economy and is able to meet various expenditure requirement or obligation safely in the long term. To set of fiscal sustainability, debt must be maintained. According to Farmer (2002:311), debt is stable for every year if debt this year is equal to last year. Debt stabilizing deficit variable is constructed by Favero and Monacelli (2005) as follows $d_t^* = -\frac{(i_t - g_t)}{(1 + g_t)} b_{t-1}$ where d_t^* is debt stabilizing, i_t is interest rate, g_t is economic growth, and b_{t-1} is government debt last period. The equation is as follows:

$$B_t = (r \cdot B_{t-1}) + B_{t-1} + (G_t - T_t) \quad (7)$$

$$B_t = (1 + r)B_{t-1} + (G_t - T_t) \quad (8)$$

$$\frac{B_t}{Y_t} = 1 + r \left(\frac{B_{t-1}}{Y_t} \right) + \frac{G_t - T_t}{Y_t} \quad (9)$$

$$\frac{B_{t-1}}{Y_t} = \left(\frac{B_{t-1}}{Y_{t-1}} \right) \left(\frac{Y_{t-1}}{Y_t} \right) \text{ dan } \frac{Y_{t-1}}{Y_t} = \frac{1}{(1+g)} \quad (10)$$

$$\frac{B_t}{Y_t} = \left(\frac{1+r}{1+g} \right) \frac{B_{t-1}}{Y_t} + \frac{G_t - T_t}{Y_t} \quad (11)$$

If $\frac{B_t}{Y_t}$ is b_t , $\frac{B_{t-1}}{Y_t}$ and $\frac{Y_{t-1}}{Y_t} = \frac{1}{(1+g)}$ is budget primary deficit, consequently government budget equation is: $\frac{B_t}{Y_t} = \left(\frac{1+r}{1+g} \right) \frac{B_{t-1}}{Y_t} + \frac{G_t - T_t}{Y_t}$. Volume of debt depends on the payment of debt interest expense, level of the economic growth, as well as the consideration of the condition of budget primary deficit incurred. Debt interest burden is higher than economic growth as the result, government debt will increase, but if the debt interest expense lesser than economic growth, consequently government debt ratio will decrease. For the reason, debt stabilizing deficit variable is added in all equation, IS, Inflation Adjustment (IA), Monetary Policy (MP), Exchange Rate, Current Account and also is added fiscal policy equation. Debt stabilizing deficit model has seven equation, and the model in the long run are:

$$IS \quad y_t^d = a_0 + a_1 r_t^d + a_2 d_t^* + a_3 e_t + a_4 E[y_{t+1}^d] + \varepsilon_{1t} \quad (12)$$

$$IA \quad p_t^d = b_1 y_t^d + b_2 d_t^* + b_3 \{E[p_{t+1}^d] - E[p_{t+1}^w]\} + \varepsilon_{2t} \quad (13)$$

$$MP \ r_t^d = c_0 + c_1 y_t^d + c_2 E[p_{t+1}^d] + c_3 d_t^* + c_4 r^* + \varepsilon_{3t} \quad (14)$$

$$\text{Exchange Rate } e_t = f_0 + f_1 [r_t^d - r_t^w] + f_2 d_t^* + f_3 CA_t + f_4 E[e_{t+1}] + \varepsilon_{4t} \quad (15)$$

$$\text{Current Account } CA_t = h_0 + h_1 [y_t^d - y_t^w] + h_2 d_t^* + h_3 e_t + \varepsilon_{5t} \quad (16)$$

$$\text{Fiscal Policy } \bar{d}_t = j_0 + j_1 y_t^d + j_2 d_t^* + \varepsilon_{6t} \quad (17)$$

$$\text{Debt Stabilizing Deficit } d_t^* = -\frac{(i_t - g_t)}{(1 + g_t)} b_{t-1} \quad (18)$$

Time series data usually is facing spurious regression. To avoid spurious regression, unit root test is conducted by using ADF test and Phillips Perron Test. The unit root test on error term is also used in this step to make sure that there are no problems in heteroskedasticity and autocorrelation I(0). In order to examine whether there is as long term relation between variables, co-integration test has to be conducted with Johansen (1991) co-integration approach. The whole variables have already the same grade of integration in first difference and are followed by building Vector Error Correction Model (VECM). VECM according to Boschi and Girardi (2005) is to analyze long term and short term variables behavior in dynamic equation system model. In order to process VECM, his study used Two Stage Least Square (2SLS). The next step is continued by doing simulation with converting debt stabilizing deficit magnitude (dt) is (+/-) 1 % on each equation and assuming other variables considered constant. The simulation result on each equation its response pattern is observed. Using lag optimum test, the model in the short run has four optimum lag. So, for the short run model, the debt stabilizing deficit model is:

$$\Delta_4 y_t^d = \alpha_0 + \alpha_1 \Delta_4 (r_t^d) + \alpha_2 \Delta_4 (d_t^*) + \alpha_3 \Delta_4 (e_t) + \alpha_4 \Delta_4 (E[y_{t+4}^d]) + \alpha_5 \text{ect}(-4) \quad (19)$$

$$\Delta_4 p_t^d = \beta_1 \Delta_4 (y_t^d) + \beta_2 \Delta_4 (d_t^*) + \beta_3 \Delta_4 \{E[p_{t+4}^d] - E[p_{t+4}^w]\} + \beta_4 \text{ect}(-4) \quad (20)$$

$$\Delta_4 r_t^d = \gamma_0 + \gamma_1 \Delta_4 (r_t^*) + \gamma_2 \Delta_4 (y_t^d) + \gamma_3 \Delta_4 (E[p_{t+4}^d]) + \gamma_4 \Delta_4 (d_t^*) + \gamma_5 \text{ect}(-4) \quad (21)$$

$$\Delta_4 CA_t = \varphi_0 + \varphi_1 \Delta_4 [y_t^d - y_t^w] + \varphi_2 \Delta_4 (d_t^*) + \varphi_3 \Delta_4 (e_t) + \varphi_4 \text{ect}(-4) \quad (22)$$

$$\Delta_4 \bar{d}_t = \vartheta_0 + \vartheta_1 \Delta_4 (y_t^d) + \vartheta_2 \Delta_4 (d_t^*) + \vartheta_3 \text{ect}(-4) \quad (23)$$

Where:

y_t^d is output gap; r_t^d is interest rate; r^* is policy interest rate; e is rupiah exchange rate against euro

p_t^d is domestic price level; ca is current account; d_t^* is debt stabilizing deficit \bar{d} is primary budget deficit

$[r_t^d - r_t^w]$ is domestic interest rate balance with the interest rate of European Union

$[y_t^d - y_t^w]$ is domestic output gap with output average in Europe Union

$(E[y_{t+4}^d])$ is output gap expectation

$(E[e_{t+4}])$ is expectation rupiah exchange rate against euro currency

$\{E[p_{t+4}^d] - E[p_{t+4}^w]\}$ is balance between domestic price expectation with average price expectation in Europe Union, $ECT(-4)_{ia}$, $ECT(-4)_r$, $ECT(-4)_e$, $ECT(-4)_{ca}$, $ECT(-4)_{dt}$ are Error correction term $\alpha_0, \gamma_0, \varphi_0, \delta_0, \vartheta_0$ are constant, $i_0 > 0$; $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \beta_1, \beta_2, \beta_3, \gamma_1, \gamma_2, \gamma_3, \gamma_4, \varphi_1, \varphi_2, \varphi_3, \varphi_4, \delta_1, \delta_2, \delta_3, \vartheta_1, \vartheta_2$ are coefficient elasticity independent variable independent to dependent variable (Gujarati and Porter, 2009)

3. RESULTS AND DISCUSSION

The main problem of time series, is non-stationary data. Unit root tests can be used to check it. In order to avoid the spurious regression, the non-stationary data are differentiated to get stationary nature (Sodeyfi & Katircioglu, 2016). This study will then use augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) approaches in order to

examine stationary nature of series in this study. Literature studies suggest that PP approach gives better results than ADF approach (Katircioglu, 2009a; 2009b; 2009c).

Table 1. The ADF & PP Unit Root Tests

Variabel	Simbol	ADF Test		PP test	
		I(0)	I(1)	I(0)	I(1)
Output Gap	y_t^d	-2.9972	-3.9590*	-8.6423*	-16.2279*
Interest Rate	r_t^d	-1.3785	-2.6500*	-0.9965	-3.0101*
Debt Stabilizing Deficit	d^*	-3.9362*	-5.3187*	-5.1423*	-11.5607*
Exchange Rate	er_t	-3.2113*	-4.4016*	-3.9242*	-7.8070*
Price domestic	p_t^d	-1.5516	-4.6102*	-2.5658	-6.7698*
Interest rate Policy	r_t^*	-1.9442	-3.4172*	-1.3490	-2.9566*
Current Account	CA_t	-2.4219	-3.7250*	-4.1901*	-9.8270*
Primary Deficit	\bar{d}_t	-2.3820	-4.2079*	-5.5203*	-7.5966*
Output Gap in Euro Union	$[y_t^w]$	-4.9214*	-3.6536*	-6.5088*	-17.3570*
Interest rate (Libor)	$[r_t^w]$	-1.4673	-2.2313*	-1.8254*	-5.5811*
Price in Europe union expectation	$E[p_{t+1}^w]$	-0.2292	-3.2004*	-0.6562	-7.9090*
Domestic Price expectation	$E[p_{t+4}^d]$	-1.6918	-4.2580*	-2.8389	-8.2891*
Nominal Domestic Exchange Rate Expectation	$E[r_{t+4}^d]$	-3.1693	-4.3693*	-6.0497*	-8.5462*
Output Gap Expectation	$E[y_{t+4}^d]$	-2.5249	-3.2731*	-8.6562*	-8.5462*
Domestic output gap with output average in Europe Union	$[y_t^d - y_t^w]$	-3.4228*	-3.0650*	-9.3520*	-26.7115*
Domestic interest rate balance with the interest rate of European Union	$[r_t^d - r_t^w]$	-2.2793	-3.0311*	-1.9256	-4.0212*
Balance between domestic price expectation with average price expectation in Europe Union	$\{E[p_{t+4}^d] - E[p_{t+4}^w]\}$	-0.99596	-2.2528	-1.2515	-12.0963*

Data series in Table 1 are stationary at first differences, thus, we continue with co-integration test where results are presented in Table 2:

Table 2. Johansen Cointegration Test

Agregat Demand Equation (IS)					
Ho	H1	Trace Statistics	5 % Critical Value	Max-Eigen Statistic	5 % Critical Value
$r=0$	$r=1$	123.8841*	88.8038	53.4055*	38.3310
$r \leq 1$	$r=2$	70.4785*	63.8761	29.6995	32.1183
$r \leq 2$	$r=3$	40.7790	42.9152	19.2245	25.8232
$r \leq 3$	$r=4$	21.5545	25.8721	15.2292	19.3870
$r \leq 4$	$r=5$	6.3252	12.5179	6.3252	12.5179
Agregat Supply Equation (IA)					
$r=0$	$r=1$	120.9358*	63.8761	67.4777*	32.1183
$r \leq 1$	$r=2$	53.5812*	42.9152	27.7295*	25.8232
$r \leq 2$	$r=3$	25.7285	25.8721	20.7723*	19.3870
$r \leq 3$	$r=4$	4.9561	12.5179	4.9561	12.5179

Table 2. Johansen Cointegration Test (Continued)

Monetary Policy Equation (MP)						
Ho	H1	Trace Statistics	5 % Critical Value	Max-Eigen Statistic	5 % Critical Value	
$r=0$	$r=1$	148.4161*	88.8038	53.7393*	38.3310	
$r \leq 1$	$r=2$	94.6766*	63.8761	46.8366*	32.1183	
$r \leq 2$	$r=3$	47.8400*	42.9152	21.4729	25.8232	
$r \leq 3$	$r=4$	26.3671*	25.8721	17.7882	19.3870	
$r \leq 4$	$r=5$	8.5788	12.5179	8.57887	12.5179	
Exchange Rate Equation (E)						
$r=0$	$r=1$	136.4804*	76.9727	81.4144*	34.8058	
$r \leq 1$	$r=2$	55.0659*	54.0790	29.8823*	28.5880	
$r \leq 2$	$r=3$	25.1836	35.1927	19.7852	22.2996	
$r \leq 3$	$r=4$	5.3984	20.2618	3.8075	15.8921	
$r \leq 3$	$r=4$	1.5908	9.1645	1.5908	9.1645	
Current Account Equation (CA)						
$r=0$	$r=1$	68.6894*	63.8761	32.4139*	32.183	
$r \leq 1$	$r=2$	36.2754	42.9152	25.9973*	25.8232	
$r \leq 2$	$r=3$	10.2781	25.8721	8.4769	19.3870	
$r \leq 3$	$r=4$	1.8011	12.5179	1.8011	12.5179	
Fiscal Policy Equation (FP)						
$r=0$	$r=1$	81.0397*	42.9152	42.4538*	25.8232	
$r \leq 1$	$r=2$	38.5859*	25.8721	25.4541*	19.3870	
$r \leq 2$	$r=3$	13.1317*	12.5179	13.1317*	12.5179	

The results in Table 2 suggest that each equation in the model has at least one long term relation. Table 3 indicates that all the data variable are stationer and regression technique can be continued to prediction.

Table 3. Unit Root Test at Error Term using ADF test

Equation	Symbol	ADF Test	
		I(0)	Prob
Output Gap	y_t^d	-5.9494	0.0000
Inflation Adjustment	p_t^d	-7.3768	0.0000
Interest Rate (monetary policy)	r_t^d	-3.3493	0.0083
Exchange Rate	er_t	-6.2113	0.0000
Current Account	CA_t	-4.1010	0.0024
Primary Budget Deficit (fiscal policy)	\bar{d}_t	-3.8266	0.0053

In the short term model, the changing of dependent variable is not only described by the changing of the independent variable but by the in-stability of the variable of the past as well. The ECT rate and its rate are between 0 and negative 1. The ECT rate coefficient indicates are hat the speed of the adjustment of a variable is returning to its stability when countering shock. This condition indicates that the prediction that resulted from the equation system is valid, because there are between 0 and 1. The result of estimation short and long terms is in Table 4.

Table 4. Estimation of Short Run (SR) and Long Run (LR)

Equation	Variabel	SR StatCoefficient	T	LR Coefficient
Output Gap (dyd)	Drd	0.0002	0.9670	0.0003
	Dds	0.0097*	-1.2762	0.0041*
	Dle	0.6041	4.4168	-1.1110*
	dydf	0.0008*	6.3763	0.0012*
	ect_is(-4)	-0.6318*		
Inflation Adjustment (dpd)	Dyd	-0.5608	-0.3109	-7.7164
	Dds	0.0006	0.4835	0.1678
	dpgapf	1.3509*	10.5770	1.1698
	ect_ia(-4)	-0.7992*		
Interest rate (drd)	Dyd	-117.5666*	-2.6573	-6.0861
	dpdf	-0.5148	-0.2522	0.7876*
	Dds	-0.0247	-0.7773	-0.1012*
	Drs	0.6943*	8.7726	0.8749*
	ect_r(-4)	-1.2187*		
Exchange Rate (dle)	drgap	0.0040	1.8204	-0.0101
	Dds	0.0021**	8.2592	-0.0002
	Dca	-0.0145**	-2.5519	-0.0115
	Dlef	1.0716*	1.1109	1.0107
	ect_e(-4)	-0.4390**		
Current Account(dca)	dygap	26.7827	0.7047	-4.5221
	Dds	-0.0026**	-0.0448	-0.0826
	Dle	-12.7432**	-2.5116	0.3230
	ect_ca(-4)	-0.4852*		
Primary Deficit (ddt)	Dyd	-131.461**	-0.7444	42.0545
	Dds	0.4003*	3.2838	0,0041
	ect_kf(-4)	-0.5405*		

*significant at $\alpha=1\%$, ** significant at $\alpha=5\%$,*** significant at $\alpha=10\%$,

Based on the result, if debt stabilizing deficit model is implemented in Indonesia, in the long run it has positive influence on output gap, price level, and budget primary deficit but negative influence on current account. Debt stabilizing deficit does not influence significantly on interest rate and exchange rate as a monetary instruments variable. When debt stabilizing deficit is implemented in the economy, besides primary deficit increase, it will also increase the output gap. Government spending will push actual output and leaving potential output. The increasing of demand from government spending increases the level of domestic price. In the other side, policy of budget deficit in the long run has a negative effect on current account but in the long mechanism. The longer steps, the less significant the variable is Budget deficit which is financed by loan causes currency inflow, local currency will appreciate, and it presene current account. The appreciation of rupiah result in the next export performance decreases. The decrease of the foreign trade will penetrate the current account deficit.

It is also founded that fiscal variables are not supported well by monetary variables. It is approved when debt stabilizing deficit is implemented, it has no influence on interest rate and exchange rate. The central of bank will control interest rate by central bank rate (BI Rate) without considered budget deficit condition or other. It is a monetary rule concept. This situation describes that there is lack of coordination between central bank (or Bank Indonesia) and Ministry of Finance as fiscal authority to achieve their target goal variables. So, the Central Bank must build a good coordination with fiscal authority to make a better macro economic performance, economic growth, and fiscal sustainability. It also finds that, fiscal policy is less effectiveness than monetary policy, related to the time lag. The expectation on the domestic goods price encourages instantly when the government just informs the media to increase civil servant salary. When the expectation is too high, this expectation tends to encourage the economic actors to purchase goods real time that may trigger the increase of the goods price. The increase of the goods price will encourage Central Bank (Bank of Indonesia) to play its role in stabilizing the price through interest rate policy that the market interest rate will increase. When the actual price increases, central bank will make some effort to hold the increase of this goods price by influencing that the interest rate decreases until

the aggregate offering shifted to the right. To make a fiscal sustainability, it should be considered as the implementing of Fiscal Policy Rule.

The short run analysis has the same form and sign with the long run. When debt stabilizing deficit model is implemented, it has positive influence on output gap and primary deficit but negative influence on current account. The main differences are on price level. If debt stabilizing deficit model is implemented, domestic price level is not significant influence. Fiscal policy on debt stabilizing deficit model has no influence on domestic price and this finding is understandable. It indicates that sticky price is in the economy in the short term. Coefficient rate in the interest rate equation statistically is significant at the rate 1.2187. This ECT rate indicates that interest rate equation is shaped from interest rate policy. Theoretically when the interest rate gap enlarges as the result of that the interest rate is increased continually compared to the average interest rate in the European Union countries, the capital will flow into the country that in the long term will strengthened the rupiah rate (appreciation), yet from the result of the research indicates the other way around. Floating exchange rate system used Indonesia is very much influenced by the world condition. For the investors, other than the consideration to obtain yield from the long term investment in a country, foreign investors will consider the external factors in a country as well. External factors are mentioned such as security and convenience in doing business, legal certainty, and facility are mentioned, and infrastructure licensing. As long as those factors are not fulfilled, no capital flows into the country.

The implication of the debt stabilizing deficit has influence on rupiah exchange rate. When the government must pay its debt obligation, the government will purchase more foreign currencies. The demand on the foreign currencies is not only needed by the government but also the speculators. The increase of demand foreign currency causes depreciation in rupiahs. Depreciation in rupiahs causes negative of current account. This finding is in accordance with the theory and the assumption of the research. Exchange rate has negative effect on the output gap. It means that if the rupiah exchange rate against the foreign currency is experiencing appreciation, this condition will be resulting the output gap decreased. The appreciation of exchange rate in the long term significantly will increase the production cost, particularly manufactured production industry in Indonesia that still using imported raw material. If in the long run, when cost of production is increased, the national production level will decrease. This condition resulting the output gap decreased. The expectation toward the output gap increases 1 % this will encourage the increase of the actual output gap 1.11 billion IDR and on the other hand the expectation toward the output gap decreases then the actual output gap will decrease.

The expectation of the exchange rate has positive influence and significant on rupiah exchange rate on euro currency. The increase of the exchange rate expectation will encourage the actual exchange rate to follow the same direction of its expectation. In the long term there is negative relationship between domestic output gap and average output level in the European Union countries toward the current account in Indonesia. When the output gap is getting bigger and away from the potential output, the goods price tends to be even bigger. As the recovery economic crisis influence does not complete that spread in some parts of developed country and Indonesia, this resulting the domestic demand on imported goods is not automatically significant. Yet, in the short term it is the opposite. In the long term, debt stabilizing deficit has positive influence on budget primary, output gap has relationship with budget primary deficit. In the short term when the output gap increases 1 trillion IDR, this will resulting the increase of demand, which primary deficit will increase the deficit by 131%.

This condition indicates how important is the fiscal policy to address the requirement of financing because of the increase of demand. From the simulation, it indicates that when the shock occurs in the form of adding and subtracting of the magnitude of 1 % of debt stabilizing deficit from data base line debt stabilizing deficit, response pattern of output gap equation, price, interest rate, exchange rate, current account, and budget primary deficit have the same pattern with response pattern before simulation is conducted which is return to the equilibrium. If debt stabilizing deficit is added 1 % those five equations indicate that the curve position is below the curve before simulation is conducted. When the magnitude of debt stabilizing deficit subtracted 1 % base line, curve position is above the curve position before simulation is conducted where the its coefficient higher compared to simulation earlier for all equations. It means that it is important for government to keep the debt stable.

4. CONCLUSION

This study is a deductive research which examines the implementation of New Consensus Macroeconomics as an economic thinking in a general equilibrium. Are this model is modified by using some assumption, adding fiscal variable in each equation and the model to be debt stabilizing deficit model. First, if debt stabilizing deficit model is implemented in Indonesia, in the long run it has positive influence on output gap, price level, budget primary

deficit but negative influence on current account. Debt stabilizing deficit does not influence on interest rate and exchange rate as a monetary instrument variable. In the short run, fiscal policy does not influence significantly on domestic price level, interest rate, and exchange rate. These variables are neither significantly in long run nor short run because these variables are controlled by Central Bank. So, the Central Bank must build a good coordination with fiscal authority to make a better economic performance, economic growth, and fiscal sustainability. Second, sticky price is happened in economic phenomena in Indonesia. Third, the inflation equation is the fastest equations in adjusting to the new equilibrium. It is happened because inflation rate or monetary variable is directly controlled by central bank. In the other side, fiscal equation is the slowest equation in adjusting to the new equilibrium.

Fiscal policy faces the policy lag, it means if fiscal policy is implemented, it need a long time to execute the policy because new fiscal policy must be approved by legislative. It is the reason why fiscal policy is less effectively than monetary policy. Fourth, all expectation variable has a positive influence and significant on each represented variable, such as actual price level, actual exchange rate, and output gap. So, in order to make a good macro economic and policy, expectation variable must be also considered. Fifth, conducting simulation on the magnitude of debt stabilizing deficit, it is indicated that the increasing of debt stabilizing deficit causes the economic performance is lower than before. It is reply that it is important for government to implemented counter cycle strategy when economic growing to keep debt stabilizing, but it still need further discussion.

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