

An Integration Basic Accounting Equation with Equivalent Rate Methodology

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Abstract

Aec formula is the antithesis of the concept of a liberal economy. This concept is obtained based on the historical approach based multiplier effect. This formula pressure point located on the first derivative of the capital increase in aggregate supply implications on the condition of interest is equal to zero. Variables that affect this equation is a charity donation shodaqoh salaries and benefits customers enhanced expenditure national income approach using calculus this analysis method combined with linear program. The formula that was created can be used as research material in creating a world Islamic economic system through Islamic Developing Bank as a solution to the global crisis created by the liberal sector. The influence of Islamic economic concept of the liberal sector lies in the change in national income variable. The concept eliminating the influence of Islam on the economy so that there is no interest rate speculation. Variable is replaced with a variable interest rate of zakat, donation, shodaqoh based multiplier effect by calculating equivalent rate. Effect of change in this variable has a positive impact on income distribution measured by Gini coefficient or curve lorrenz. This paper is supported some secondary data such as global potential of Islamic finance, Islamic finance growth data, workflow enactment Islamic financial system in Indonesia, the development of Islamic finance in non-Muslim countries. The benefits to be gained from this research in the field of basic accounting equation as a source of macro policy-making and as a material consideration in developing a Master Plan to prepare Asean Economic Community in 2015

Keywords: Yield, Islamic Economics System, Equivalent Rate, Basic Accounting Equation

1. Introduction

1.1 Poverty in Indonesia

Between the mid-1960s until 1996, when Indonesia was under the leadership of Suharto's New Order regime, Indonesia's poverty rate dropped dramatically - both in rural and urban - because of strong economic growth and the existence of poverty reduction programs are efficient. During the Suharto of Indonesia's population numbers living below the poverty line dropped dramatically, from initially about half of the total population of Indonesia, until only about 11 percent. However, when in the late 1990s Asian financial crisis occurred, a high poverty rate skyrocketed, from 11 percent to 19.9 percent at the end of 1998, which means the accomplishments already achieved by the New Order destroyed instantly.

The following table shows the poverty rate in Indonesia, either relative or absolute:

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Relative Poverty (% of population)	16.0	17.8	16.6	15.4	14.2	13.3	12.5	11.7	11.5
Absolute Poverty (in millions)	35	39	37	35	33	31	30	29	29
The Gini coefficient / Gini Ratio	0.36	-	0.35	0.35	0.37	0.38	0.41	0.41	0.41

SOURCE : WORLD BANK AND BPS

The table above shows the national poverty reduction slowly. However, the Indonesian government uses the terms and conditions that are not strictly on the definition of the poverty line, so that what appears is a more positive picture of reality. In 2013 the Indonesian government defines the poverty line with initial yield per month (per capita) as much as Rp. 292.951. This amount is equivalent to USD \$ 25 which therefore means that the standard of living is very low, also create their own understanding of Indonesian people. But if we use the value of the poverty line used the World Bank, which classifies the percentage of the Indonesian population living on less than USD \$ 1.25 per day as those who live below the poverty line, the percentage of the table above would seem inaccurate because of its value as raised some percent. Furthermore, according to the World Bank, the number of Indonesian population living on less than US \$ 2 per day reached 50.6 percent of the population in 2009. This indicates that the majority of Indonesia's population lives below the poverty line almost.

A more recent report again in the media in Indonesia stated that about a quarter of Indonesia's population (about 60 million) live just above the poverty line. In recent years the poverty rate in Indonesia showed a significant decrease. However, this reduction is expected to slow in the future. Those who in the past few years was able to get out of poverty are those who live at the end of the poverty line which means it does not need a strong support to get them out of poverty. However, in line with the reduction of the group, the group that was at the very bottom line poverty which now must be assisted to rise. It is more complicated and will result in poverty reduction figures that runs slower than before.

1.2 Poverty in Indonesia and Geographical Distribution

One of the characteristics of poverty in Indonesia is a big difference between the value of the relative poverty and absolute poverty rate in relation to geographical location. If in absolute terms more than half of Indonesia's total population living in poverty are in Java (which is located in the western part of Indonesia with a dense population), in relative terms in the Indonesian provinces of East showed a higher poverty rate. The table below shows the five provinces in Indonesia with the relative poverty of the most high. All these provinces are located outside the territory of Indonesia West Java, Sumatra and Bali, which are regions that are more developed.

Provinces with the highest relative poverty

Papua	31.5%
Papua Barat	27.1%
Nusa Tenggara Timur	20.2%
Maluku	19.3%
Gorontalo	18.3%

Source : Badan Pusat Statistik (BPS)

The poverty rate in the provinces in Eastern Indonesia, where most of the population are farmers, mostly in rural areas. In the area of indigenous peoples have been living on the edge processes and development programs. Migration to urban areas is the only way to get a job and - as such - avoid poverty.

Contrary to the relative poverty rate in East Indonesia, the table below shows the absolute poverty in Indonesia are concentrated in Java and Sumatra.

Provinces with Absolute Poverty

Jawa Timur	4.9
Jawa Tengah	4.7
Jawa Barat	4.4
Sumatra Utara	1.4
Lampung	1.1

Source: Badan Pusat Statistik (BPS)



Stability of food prices (especially rice) is an important issue for Indonesia as a country whose

inhabitants spend most of their income to buy rice. Therefore, the rice price inflation pressures (eg due to crop failure) can have serious consequences for those who are poor or near-poor and significantly increase the percentage of poverty in this country.

1.3 Poverty in Indonesia: Towns and Villages

Indonesia has experienced a process of rapid urbanization and rapid. Since the mid-1990s the absolute number of rural population in Indonesia began to decline and is now more than half of Indonesia's total population lives in urban areas (20 years ago about a third of Indonesia's population lived in cities).

Except for some provinces, rural areas in Indonesia relative poorer than urban areas. Indonesia's rural poverty rate (the percentage of the rural population living below the national poverty line village level) down to around 20 percent in the mid-1990s but rose higher when the Asian financial crisis (monetary crisis) occurred between 1997 and 1998, which resulted in its value rose to 26 percent. After 2006, a decline in the poverty rate in rural areas is quite significant as what is shown in the table below:

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Rural Poverty (% of population living below the poverty line village)	20.0	21.8	20.4	18.9	17.4	16.6	15.7	14.3	14.4 ¹

¹ per September 2013

Source: World Bank

City poverty rate is the percentage of the urban population living below the national poverty line level city. The table below, which shows the level of urban poverty in Indonesia, shows the same pattern of rural poverty levels: diminishing starting from 2006.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
City Poverty (% of population living below the poverty line)	11.7	13.5	12.5	11.6	10.7	9.9	9.2	8.4	8.5 ¹

¹ per September 2013

Source: World Bank

In the two tables above, it appears that in 2005 and 2006, there was an increase in poverty. It occurs mainly due to the reduction in fuel subsidies conducted by the government of President Yudhoyono at the end of 2005. The international oil prices rose to make the government was forced to reduce fuel subsidies to ease the government's budget deficit. The consequence is a double-digit inflation of 14 to 19 percent (yoy) occur until October 2006.

1.4 Inequality in Indonesia is getting Spreads?

GINI coefficient, which measures inequality of income distribution, show a downward trend in Indonesia in recent years. A coefficient of 0 indicates perfect equality, while the coefficient of 1 indicates perfect inequality. However, we are still able to question the methodology of the GINI coefficient is because it divides the population into five groups, each containing 20 per cent of the population: from 20 percent to 20 percent of the richest to the poorest. Furthermore, this coefficient measures the equality (and inequality) between the groups. When using these coefficients to Indonesia problem that arises is this country has extreme inequality character in each group, so as to make the results of the GINI coefficient is less in tune with reality. Moreover, the media in Indonesia is often reported that the gap between rich and poor in Indonesia is even more widespread.

Source: <http://www.indonesia-investments.com>

2 Literature review

2.1 First part

According Choudury (2014) He Said That The Earth Has A Regularity In Which There Is Science That Converge On The Same Truth That The Author Believes The Capitalist System Is The Destroyer Of Order That Exists In The Universe. Author Offers The Concept Of Islamic Economics As A Solution To The Crisis Caused By Liberal Sector.

2.2 Second part

According Azzam(2014) sighted when economic conditions, interest rates in the country is equal to zero, the condition of the flow of funds can be invested in equity wealth to the maximum so that the implications for the

increase in aggregate supply. A point of emphasis this theory lies in the dual effect of profit sharing based on the calculation of equivalent rate so that the smaller the degree of disparity.

3. Research Methodology

This analysis methodology pressure point on explorative research with linier programming (lagrange) and historical approach. This research methodology can be applying on grounded research with quantitative data analysis. A point of emphasis this theory lies in the dual effect of profit sharing based on the calculation of equivalent rate so we can making interconnection through geographic islamics fund

4. Islamic Finance to Solve This Problem

In this material I can improve the formulas with shariah economics approach the formulas is:

$$Y = \sum B + \Delta K \tag{1}$$

B= Result for Profit in Islamic Trade

K= Capital

In Addition we can improve this formulas with equity:

$$\sum Y = 20\%B_1 + 80\%B_{TOTAL} + \Delta K$$

B₁= Result for customers

B_{total}= Total For Banking Result

Total For Banking Results Assuming Shodaqoh(B₂), Donation(B₃), ToCharity(B₄), AndSalaries(B₅)

The develop formulas is

$$\sum Y = 20\%B_1 + 20\%B_2 + 20\%B_3 + 20\%B_4 + 20\%B_5 + \Delta K$$

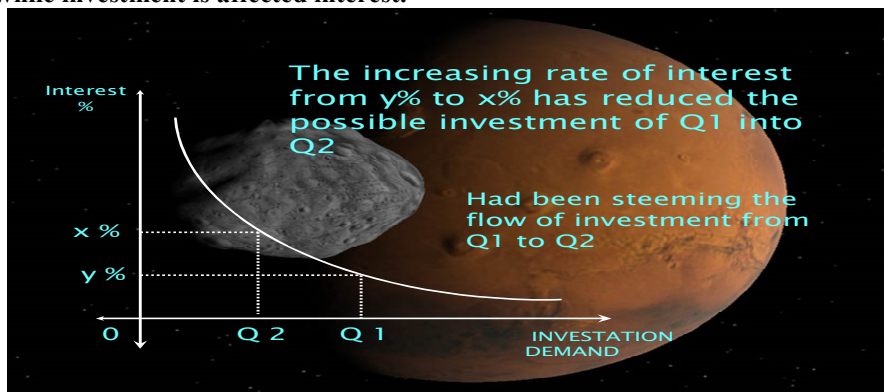
In this Addition I can improve in yield for maximum income with formulas :

$$Y_{max} = \sum B + K'(x) \tag{2}$$

K'(x)= Is TheFirstDerivativeOf The Function K

With term: $K'(x)=0$

Because we know capital has equity with investment while investment is affected interest.



we can develop this formulas with national income expenditure approach

$$Y = C + I + G + (X - M) \dots \dots \dots 2$$

I = Investment

G= Government Expenditure

X= Export

M= Import

$$Y_d = Y - T_x + T_r \dots \dots \dots 3$$

Y_d= Disposable Income

T_x= Expense

T_r= Transfer Payment

Influence profit in Islamic trade in transfer payment with term interest equal to zero

$$Tr = Tr_0 + B \dots \dots \dots 4^* \tag{3}$$

T_{r0} = Initial transfer payment

B = Result for profit islamic trade ($B = iY = \alpha Y$)

C = f(Y_d)

$$C = C_0 + b(Y - T_x + T_r) \dots \dots \dots 5$$

C_0 = Initial Consumption

$$I = I_0 + iY \dots\dots\dots 6$$

I_0 = Initial investment

i = MPI

$$G = G_0 \dots\dots\dots 7$$

G_0 = fluctuations in government spending Budget

$$X - M = X_0 - M_0 \dots\dots\dots 8$$

X_0 = Fluctuations in magnitude export

M_0 = Fluctuations in magnitude import

in Conclusion we can combine from (3) until (8) formulas in (2) :

$$Y = \frac{c_0 - bTx_0 + I_0 + G_0 + X_0 - M_0}{(1 - b - \alpha b - i)}$$

STUDY CASE ASEAN ECONOMICS COMMUNITY 2015

Determine the amount of national income in order to compete on the Asean free market if the data known to the data as follows:

Data consumption early 2015 for 50T

MPC of 0.25

National income amounted to 500T

Transfer Fee payment 20T

Expense 10T

Initial Investment 150T

MPI of 0.5

Data from year to year fluctuations in government spending Budget Data

2010 = 50T

2011 = 10T

2012 = 20T

2013 = 20T

2014 = 50T

Magnitude Export = 150T

Magnitude Import = 100T

Based on the above data, if the data set with the method of calculating national income balance whether Indonesia can compete with Singapore which has

The strength of the national income of 500T

Answer :

$C_0 = 50T$

$mpc = 0,25$

$Y = 500T$

$T_r = 20T$

$T_x = 10T$

$$\begin{aligned} \text{we can use } C &= C_0 + b(Y - T_x + T_r) \\ &= 50T + 0,25(500T - 10T + 20T) \\ &= 127,5 T \end{aligned}$$

$I_0 = 150T$

$MPI = 0,5$

$Y = 500T$

We can apply with this formulas

$$\begin{aligned} I &= I_0 + iY \\ &= 150T + 0,5 \cdot 500T \end{aligned}$$

$$= 150T + 250T$$

$$= 400T$$

$G_{2014} = 50T$

$$E_x - I_M = 150T - 100T = 50T$$

$$\begin{aligned} \text{National Income} &= 127,5T + 400T + 50T + 50T \\ &= 127,5T + 500T \\ &= 627,5T \end{aligned}$$

The conclusion indonesia can making competition with singapura in asean economics community

Integration with Identity formulas in Asean Economics Community

In this material we can using this formulas in islamic finance with identity formulas. this equation with equivalent rate methodology analysis.

$$\circ Y_1 = Y_2 = Y_3$$

We can develop this formulas in basic accounting equation

$$C+I+G+(X-M) = W + R + (Tr_0 + B) + P = P_1.Q_1 + \dots + P_n.Q_n \dots\dots\dots 2$$

In this material we can develop with this formulas

$$f(Y_d) + (@+i) (\int_{X_0}^{x_n} K + \sum B) + G_0 + Ex_0 + Im_0 = W + R + (Tr_0 + B) + P = P_1.Q_1 + \dots + P_n.Q_n \dots\dots\dots 3$$

So that we can generate with this formulas

$$mpc_0 \cdot (\int_{X_0}^{x_n} K + \sum B) + b(\int_{X_0}^{x_n} K + \sum B - T_x + Tr_0 + Y_{normal} - \int_{X_0}^{x_n} K) + (@+i) (\int_{X_0}^{x_n} K + \sum B) + G_0 + Ex_0 + Im_0 = W + R + (Tr_0 + B) + P = P_1.Q_1 + \dots + P_n.Q_n \dots\dots\dots 4$$

In This Conclusion we can apply this formulas in basic accounting equation with equivalent rate in multiplier effect without interest so the aggregate supply increase with this implication.

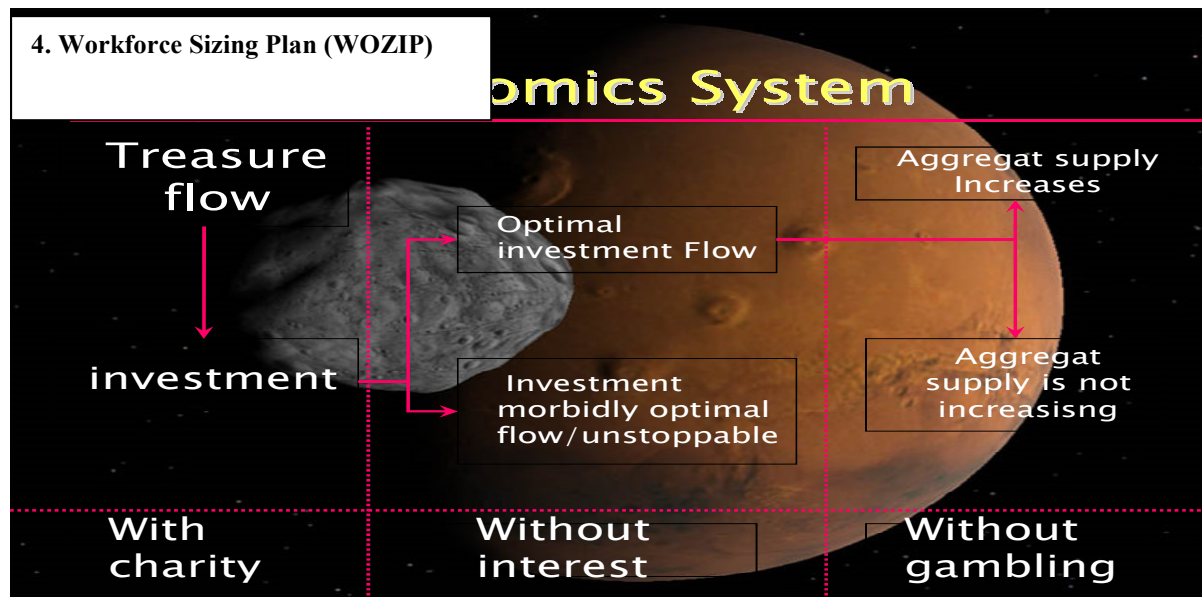
The conclusion of this formulas is

$$mpc_0 \cdot (\int_{X_0}^{x_n} K + \sum B) + b(\int_{X_0}^{x_n} K + \sum B - T_x + Tr_0 + Y_{normal} - \int_{X_0}^{x_n} K) + (@+i) (\int_{X_0}^{x_n} K + \sum B) + G_0 + Ex_0 - M_0 + m(\int_{X_0}^{x_n} K + \sum B) = W + R + (Tr_0 + B) + P = P_1.Q_1 + \dots + P_n.Q_n = \frac{Z}{K.r_m}$$

so that the implication in agreegat supply for maximum income in this equation in maximum income for Basic Accounting Equation Implication is

$$Yaec_{max,total} = Mpc_0(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + mpc_1(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + mpc_2(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + mpc_3(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + \dots + mpc_n(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + b(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B - T_x + Tr_0) + MPI_0(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + MPI_1(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + MPI_2(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + \dots + MPI_n(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + (G_1 + G_2 + G_3 + G_4 + G_5 + \dots + G_n) + (Ex_1 - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B)_1) + (Ex_2 - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B)_2) + (Ex_3 - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B)_3) + \dots + (Ex_n - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B)_n) = W + R + (Tr_0 + B) + P = P_1.Q_1 + \dots +$$

$$P_n.Q_n = \frac{Z}{K.r_m}$$

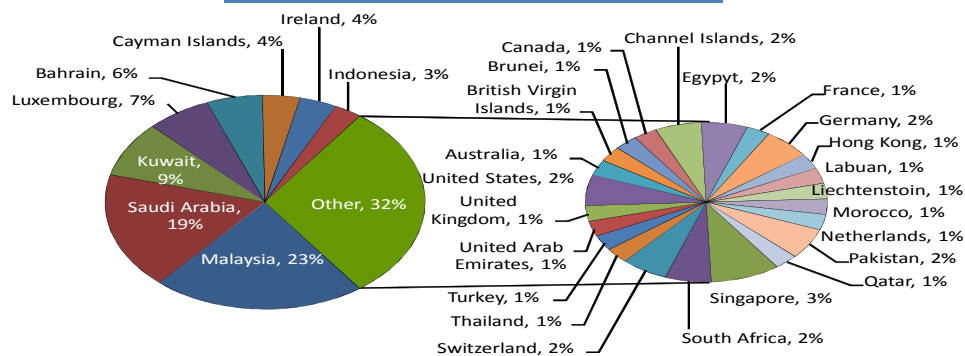




Global Islamic Finance Potential

Islamic Fund

Domisili Geografis Islamic Funds



Source : Zawya, Euerekahedge, Ernst & Young

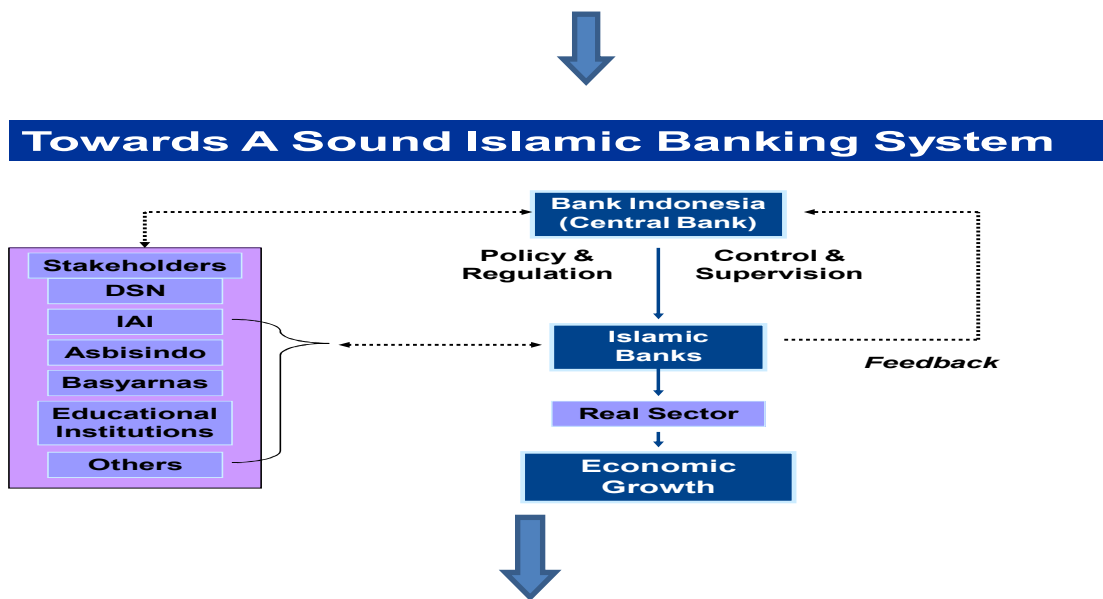
- Major from malay, saudi arabia, kuwait
- Indonesia only 3%.

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A number of Active National Portrait Growing Sharia Banking (As of May 2008)

NATION	POPULATION	Muslim (%)	GDP (USD Bil)	FINANCIAL SECTOR (USD Bil)	SHARIA BANKING ASSET (USD Bil)	SHARE OF SHARIA BANKING (%)
Iran	65,875,223	98	278.1	162.2	162.2	100
Sudan	40,218,455	70	49.71	63.8	58	90
UAE	4,621,399	96	189.6	340	46.3	13.5
Bahrain	718,306	81.2	16.89	251.1	16.4	6.5
Qatar	928,635	77.5	65.81	81.3	14.8	18.2
Malaysia	25,274,133	60.4	165	387	50	12.9
Singapura	4,608,167	14.9	153.5	27.6	1.8	6.5
Inggris	60,943,912	2.7	2,756	19,100	10	0.05



Emerging interest in Islamic Finance

Non-Muslim countries starting to offer Islamic Finance



Source: Islamic Finance and Global Financial Stability, IRTI – IDB & IFSB, April 2010

5. Conclusion:

The ASEAN Leaders at their Summit in Kuala Lumpur in December 1997 decided to transform ASEAN into a stable, prosperous, and highly competitive region with equitable economic development, and reduced poverty and socio-economic disparities (ASEAN Vision 2020). The formula that was created can be used as research material in creating a world Islamic economic system through Developing Islamic Bank as a solution to the global crisis created by the liberal sector. A point of emphasis in this theory lies in the dual effect of profit sharing based on the calculation of equivalent rate so that the smaller the degree of disparity. The influence of Islamic economic concept of the liberal sector lies in the change in national income variable. The concept eliminating the influence of Islam on the economy so that there is no interest rate speculation. Variable is replaced with a variable interest rate of zakat, donation, shodaqoh based multiplier effect by calculating equivalent rate. Effect of change in this variable has a positive impact on income distribution measured by Gini coefficient or curve Lorenz. Author offers this research in the field of basic accounting equation as a source of macro policy-making and as a material consideration in developing a Master Plan to prepare Asean Economic Community in 2015 with this formula:

$$Y_{aec} = L + \sum K$$

L = Loan

K = Capital

If we can integrated with National income with expenditure approach we can conclude that. The formulas is

$$mpc_0 \cdot (\int_{X_0}^{x_n} K + \sum B) + b(\int_{X_0}^{x_n} K + \sum B - T_x + T_{r0} + Y_{normal} - \int_{X_0}^{x_n} K) + (@+i) (\int_{X_0}^{x_n} K + \sum B) + G_0 + Ex_0 - M_0 + m(\int_{X_0}^{x_n} K + \sum B) = \sum L + \sum K \dots\dots\dots 2$$

this equation can generate with tax terminology with formulas

$$Yaec_{max} = \frac{Qs' - konstanta}{MPI} + tax = \sum L + \sum K \dots\dots\dots 3$$

This equation cannot be apply in normal income because tax has limited value so that we can generate with this formulas in maximum income

$$mpc_0 \cdot (\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + b(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B - T_x + T_{r0}) + (@+i) (\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + G_0 + Ex_0 - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) = \frac{Qs' - konstanta}{MPI} + tax = \sum L + \sum K \dots\dots\dots 4$$

we can combine the formulas from (1) until (4) and we can generate with profit of syirkah temporer with formulas

$$Yaec_{max} = \frac{Qs' - konstanta}{MPI} + tax = \sum L + \sum K + S$$

S = Profit in syirkah temporer

$$Yaec_{max} = mpc_0 \cdot (\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + b(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B - T_x + T_{r0}) + (@+i) (\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) + G_0 + Ex_0 - M_0 + m(\lim_{X \rightarrow x_n} K + \sum_{i=0}^n B) = \frac{Qs' - konstanta}{MPI} + tax = \sum L + \sum K + S$$

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