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## Institutional Bureaucracy and Real Sector Movement

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**Abstract:**

*Institutional bureaucracy is an infrastructure and a social overhead capital (SOC). SOC covers social set values expressed with confidence, norms and networks. Research using SOC index as an evidence of institutional behavior.*

*The purpose of this research is to show that the SOC index has significant influence on investment decisions and vice versa on national product. Standard monetary transmission instruments such as interest rates, exchange rates, prices of financial assets, and base money as evidence of inflation and bank loans, as long as SOC index as explanatory (independent) variables regressed to GDP, GRDP or investment as the dependent variable.*

*The regression results indicate a low SOC index showing the inability of economies to provide a conducive response of monetary transmission channel. Therefore, the research results imply that the government must set a high priority in solving the problem of slow institutional response to the earning opportunities.*

**Keywords:** Monetary transmission, institutional bureaucracy, social overhead capital index.

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## **1. Introduction**

This research begins by observing that it looks like there is a sign of gap between the monetary sector and real sector. It shows that the stability in the monetary sector has not automatically associated with the real estate sector that has begun to move. Therefore, this research included the behavior of particular institutional or bureaucratic behavior that is responsible to the gap.

When Joko Widodo in the 2014 presidential election gain victory and took him as the President of Indonesia, his role the head of state gives no guarantees of freedom from criticism. In a not-too-long time period, that is in August 2015, President Jokowi reshuffle his cabinet, it is expected to be the government cabinet that can deal with the dynamics at national and global levels, mainly due to worsening economic conditions that require quick response (Ministry of State Secretariat of The Republic of Indonesia, Pratikno. 2015). But that does not mean they can be out of sharp criticism, especially in the implementation of the country's economy.

The main monetary indicators after overall reshuffling are entirely for the benefit for his government. The inflation rate is stable at about 3.35% at end of 2015; the exchange rate weakened and fluctuates from the psychological level of Rp. 13.600. Central Bank interest rate is also low during his reign.

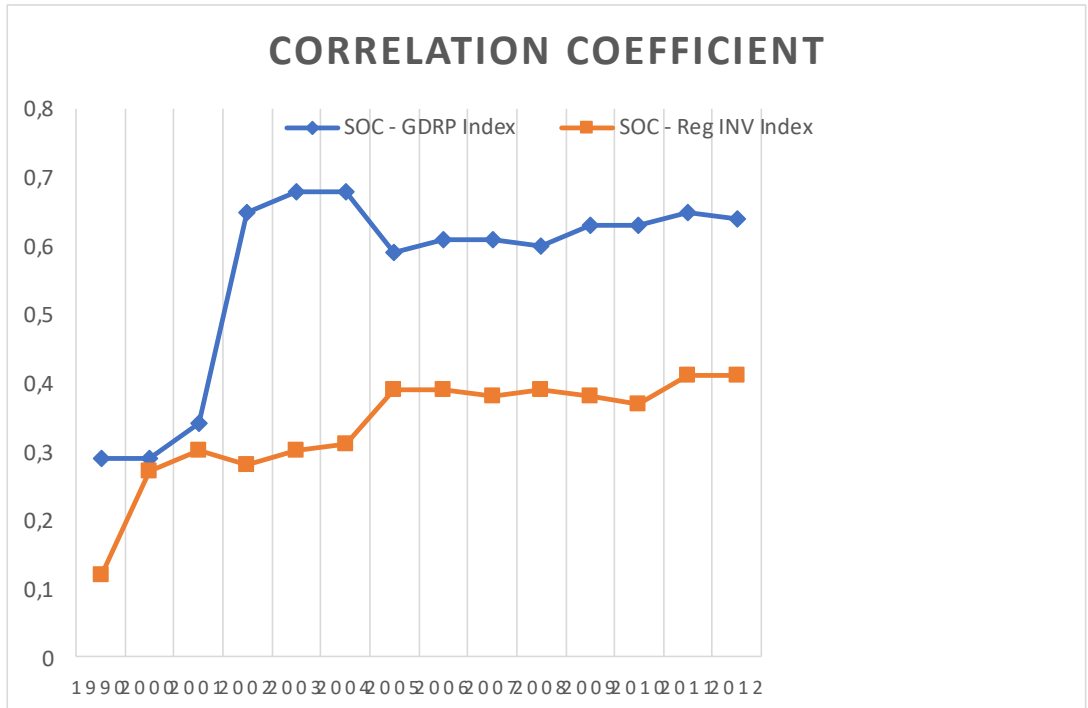
Previously, citizen has received in terms of the economic conditions during the SBY's government that monetary stability is real economic growth. Currently the citizens felt disappointment to get that monetary stability only provides the necessary conditions for the growth of the economy. In solving the problem of unemployment and poverty, it has been implemented through the construction of toll roads in Jakarta and in various regions in Indonesia as the government policies run today.

This paper has not attempted to identify and analyze the size of such policy; the size of it is beyond the scope of this paper. The purpose of this paper is to examine the possible reasons why monetary conditions do not necessarily affect the real sector and gross domestic product (JB Taylor, 1995). This research looked at the framework of monetary transmission and see possible reasons for the effectiveness of the transmissions. As for now, common belief among the public is that there is a responsible institutional behavior on the monetary transmission deadlock. This paper used limited model with the research objective on the role of institutional behavior that becomes a barrier for movement of monetary transmission function in stimulating the real sector.

This analysis is based on conjectural approach that began to expose a growth rate between real sector variables (GRDP and investment) and SOC index at the regional level. SOC index which have been compiled into one new variable introduced and simultaneously with the level of interest rates, exchange rates, asset prices, base

money (M0) and bank loans to GDP and investment as the dependent variable. The correlation coefficient between the regional SOC index and the GRDP and regional investment can be demonstrated in the following Figure1:

**Figure 1.** Growth rate of GRDP and regional SOC on investment and regional SOC regional for 31 provinces



**Source:** Regional data sources in all provinces, GRDP and regional investment.

Strong growth between the two variables implicates that the variables may be considered in making the allegation that social overhead capital do something over the weakness of the real sector with an unresponsive to stimuli transmitted by the monetary sector.

## 2. Literature Review

In the modern economy, the separation based on difference of estate sector from the monetary sector will gain more views. The financial sector facilitates economic liquidity and real sector use liquidity in producing goods and services to achieve the welfare state. In Indonesia, the monetary authority is leading and pushing banking system, which have a major impact on the financial market; for the money market and capital market. The three sub-sectors of the financial markets, money markets and capital markets always reflect the changes in the central bank instruments, such

as interest rates of the central bank, among others as a reference policy (Permana 2017; Bratamanggala, 2017; Effendi and Disman, 2017).

The function of three sub-sectors is as intermediation to the benefit of the real sector. Therefore, the interest rate is considered to be an important transmission channel. There are four other monetary transmission channels in the system, which are the currency exchange rate channel, inflation rate channel, asset price channel and the credit channel. In the last channel, the position of investors in the real sector is encouraged to be prepared to use the liquidity to produce goods and services for the welfare of the people. In this research, the five instruments are selected as the independent variables and expected to explain the behavior of real sector. With the addition of SOC index, the independent variables become 6 (six). The dependent variable is a function of capital or investment cost of serving the real sector (Warjiyo and Solikin, 2002). GNP also regressed as controlled variable (dependent variable).

The transmission channel mentioned above conclude that the process of monetary instrument functions include bureaucratic institutions. This research began with the institutional role behavior. Preliminary estimates are the flaws in the social overhead model in the form of human capital in the bureaucracy. Estimates by dissertation of NyomanUtari in (IPB, 2007), Gary Becker (1975), MahbulUIHaq (1990), and Amartya Sen (2000), all provide evidence of how important the issue. Every investment costs decision is conditioned by the tendency of paid by investors. The observations expressed in the introduction pushed estimation of some factors that restrict disturbance of real investment. Therefore, the index of social overhead models introduced within the framework of the theory as the 6<sup>th</sup> explanatory variable.

According to some comments, Indonesia has a financial market revival. However, the volume of transactions every day is still considered weak. The depth of the financial markets is a problem that is in fact still far below Singapore. Therefore the financial sector of Indonesia is still in a learning phase. Social overhead capital has not yet developed enough to function as the necessary infrastructure for the financial system or the banking system.

Indonesia's citizen still record and remember the government's decision to liquidate 16 banks after consultation with the international financial authorities in the middle of 1997. One example of that moment is when the decision is made in a weekly problem after the finance minister who has made the public know that the government still could not fix the banks experiencing financial pressure to external pressure from international financial markets in June 1997. The social overhead capital was too weak to overcome the problems resulting in the national financial tragedy from BLBI problem that use large limits in the success of the state budget until 2033.

In her dissertation, Utari (2007) provides discovery that social capital plays an important role in regional economic growth in Bali. Utari introduce trust or

confidence, norms and networks to represent social capital. In this research, the researchers introduced the SOC index, which is a simple average of education enrollment and nutritional status indexes.

Another state data was also used includes the analysis to see if the model can also be applied to the conditions of other countries that have cultural similarities, but with a little difference in the bureaucracy until the differences in historical background. Thailand and Malaysia have been selected for the purpose.

The existence of a good infrastructure is to attract investors' thinking to invest. Infrastructure facilitates productive transformation process into acceptance. Bureaucratic elements mentioned above are part of social overhead capital. The effectiveness of the bureaucracy depends on social capital. In the research, social overhead capital index presented as average of education index and health index. Education index is the average education enrollment rates and the health index is the average nutritional indices used. For the case of Malaysia and Thailand, only the level of school participation was used, and nutritional indices for the two countries are readily available.

### **3. Methodology**

There are three groups of variables used in the model which serves monetary transmission instrument as an index of explanation, and the SOC index variable serves the behavior of institutional and real sector variables.

Instruments of monetary transmission are:

1. The interest rate for loans in one year.
2. Exchange rate of Rupiah and US Dollar.
3. The annual inflation rate on runs or base money.
4. Asset price proxy index or joint stock price
5. Number of banking credits

#### *Real sector variable*

The model formation used in GDP presents the investment cost as the dependent variable.

#### *Social overhead capital*

The average level of participation in education and nutritional status proposed as a new variable to be tested and examined in the research.

#### *Data*

BPS data published by Indonesia, Thailand and Malaysia during the period 1980 - 2016 were used.

#### *Model*

Some of the models that were tested includes the simple form used in OLSe standards. The decision to divide the financial costs, include investment costs, substantially according to the tendency to be such. Therefore, the decision to invest higher or lower from the amount and accepted tendency depends on social overhead capital.

#### *Function Formulation*

As for the function that shows the relationship of variables is as follows:

$$INV_t = f (INT_t, SPT_t, MOY_t, HIS_t, KDT_t, SOC_t)$$

Where:

INV : capital formation in GDP;  
 INT : Interest rate in 1 month;  
 SPT : US Dollar exchange rate over the latest period;  
 MOY : Base money as proof of the inflation level;  
 HIS: Composite Stock Price Index;  
 KDT : Bank Credit;  
 t :year periode of 1980 – 2016;  
 Assumptions linear;  
 $\mu$  is the understanding disorder.

The model is applied to the Indonesia data and Malaysia data. Thailand data was used as an additional test. To be more meaningful, the test used in a limited logit model, probit model or tobit expected to reveal more information about the validity of social overhead capital as evidence of institutional behavior.

#### **4. Results**

The following are the results of basic models using absolute data and log properties for each variable:

##### ***Indonesia Case:***

$$\begin{aligned}
 INV = & -651732.1 + 1968.05800INT - 37.50316SPT + 0.001783 MOY \\
 & (-1.427996) \quad (0.35078) \quad (-2.325951) \quad (2.1389688) \\
 & -54.02112HIS - 0.85763KDT + 17577.52SOC \\
 & (-0.696377) \quad (-0.7177725) \quad (1.695587)
 \end{aligned}$$

$$R^2 = 0.942386$$

$$F = 38.168887$$

$$n = 37$$

$$\text{Period} = 1980 - 2016$$

$$\begin{aligned}
 \text{Ln } INV = & -21.77526 - 0.728138 \text{ Ln } INT + 0.260129 \text{ Ln } SPT - 1.573515 \text{ Ln } MOY \\
 & (-2.238503) \quad (-2.184008) \quad (0.639450) \quad (-1.8862296)
 \end{aligned}$$

$$-0.4075794 \text{LnHIS} + 0.8665608 \text{LnKDT} + 11.56480 \text{LnSOC}$$

$$(-0.996377) \quad (-0.6177725) \quad (1.935483)$$

$$R^2 = 0,937953$$

$$F = 35,603344$$

$$n = 37$$

$$\text{Period} = 1980 - 2016$$

The regression showed that the social overhead capital (SOC) variable plays an important role in investment decisions. The level of education and health status universally accepted as an important part of social overhead capital (MahbulUIHaq, 1990 and Amartya Sen, 2003). In the case of Indonesia, central and local governments still have a strategic role in investment decisions as prime mover and private sector facilitator. Clearly, the combination factors of social overhead capital sometimes find a way in the investment process. Therefore it is easier to find the correlation between the slowdown in real sector with bureaucracy effectiveness as the basic problems of social overhead capital.

Malaysia reveals itself as a difference in the case. Malaysia uses different routes since becoming an independent country in 1957. The influence of English on bureaucratic reformation put Malaysia more alive and have strength in economic development compared Indonesia. The result of the double log regression model usage indicates that social overhead capital variable is not significant on investment decisions.

#### **Malaysia Case:**

$$\text{Ln INV} = -1.683218 + 0,7548222 \text{Ln INT} + 0,932715 \text{Ln SPT} + 1,44839 \text{Ln Moy}$$

$$(-0.869852) \quad (3.6722340) \quad (-1.9115248) \quad (-2.611846)$$

$$+ 0,720834 \text{LnHIS} + 0,23192 \text{LnKDT} + 0.35891 \text{Ln SOC}$$

$$(-1.64327) \quad (1.875214) \quad (0.38377)$$

$$R^2 = 0,943659$$

$$F = 143,6320$$

$$n = 37$$

$$\text{Period} = 1980 - 2016$$

Similar to the Malaysia case, Thailand case is other evidence that does not support the social overhead capital changes plays an important role in influencing the real sector.

#### **Thailand Case:**

$$\text{Ln INV} = -0.024157 + 0.257161 \text{Ln INT} + 0.019836 \text{Ln SPT} + 0.417833 \text{Ln Moy}$$

$$(-0.018485) \quad (1.196117) \quad (-0.082733) \quad (-3.299535)$$

$$+ 0,270120 \text{ Ln HIS} + 0.986319 \text{ Ln KDT} - 0.079943 \text{ Ln SOC}$$

$$(-1.913438) \quad (0.084941) \quad (0.0876502)$$

$$R^2 = 0,96376$$

$$F = 199,83931$$

$$n = 37$$

$$\text{Period} = 1980 - 2016$$

## 5. Conclusions

1. The results of the previous regression may imply that the law of marginal productivity decline of social overhead capital works well. Indonesia still gain a high marginal productivity of social overhead capital, in which Malaysia and Thailand cases, The marginal productivity approach is nil.
2. The Indonesian authorities place the education and nutrition problems in the list of the highest priority.
3. Corporate Social Responsibility Program should be directed to strengthening the Social Overhead Capital.

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