

## **Tax Amnesty and Asset Repatriation in Indonesia**

### Abstract:

The government of Indonesia released a tax amnesty policy from July 2016 until March 2017 to eliminate tax penalties done by Indonesian tax residents with respect to unreported assets and investment. The policy also has an option to repatriate assets to be invested in domestic market for at least 3 years. Using a theoretical model, empirical estimation, and comparison with realization data, this thesis will analyze the impact of tax amnesty policy and also the asset repatriation policy for the benefit of Indonesian economy. It is found that taxpayers decide to participate in the tax amnesty policy if the cost of the amnesty which comes from redemption money is lower than the cost of evading money in foreign countries. From the empirical analysis and realization data, asset repatriation from tax amnesty policy still contributes positive gain to investment condition in Indonesia if those repatriated assets are invested through direct investment. Even though the tax amnesty policy is also proposed to increase Indonesian economic growth through repatriated assets invested in the domestic market, apparently the policy is mostly used for domestic residents who evade tax payment in the past.

Master Thesis Policy Economics

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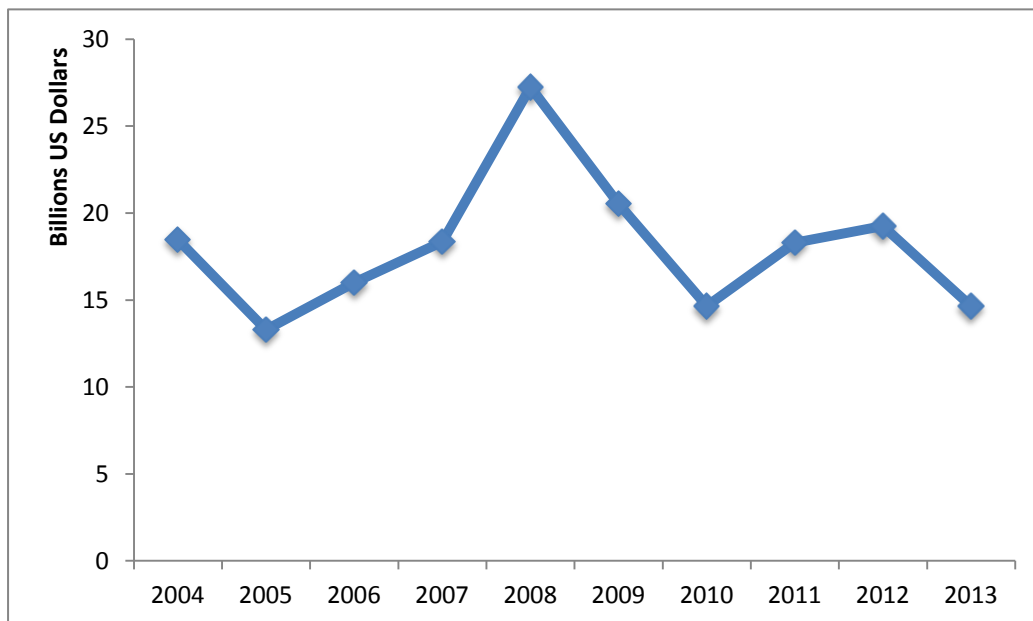
## 1. Introduction

The government of Indonesia released a tax amnesty policy on July 2016. From July 2016 until March 2017, Indonesian government decides to eliminate tax penalties done by Indonesian tax residents with respect to unreported assets and investment or capital they put domestically and abroad. The policy is released and regulated through the Law number 16 of 2016 about Tax Amnesty on 1 July 2016. According to the law, tax amnesty is aimed to:

- Accelerate economic growth and restructurization through asset repatriation which could affect improvement in domestic liquidity, exchange rate, financial interest rate, and the amount of investment in the country.
- Encourage tax reform heading to more fairness in the system, broader tax base, more valid, comprehensive, and integrated tax database.
- Increase tax revenue in order to finance national development.

The Indonesian government experiences two disadvantages regarding tax evasion from those unreported assets and investment. The first one is loss of potential investment that could be a boost to national economic growth, and the second is loss of potential tax revenue from that investment amount.

Graph 1 : Indonesia Illicit Financial Flows



Source: Kar and Spanjers (2015) on Illicit Financial Flows Report

From the graph 1, Indonesia experienced a decline in illicit financial flows after the global financial crisis. However, after the recovery phase of the crisis, the illicit financial flows increase again.

Table 1 : Rank of Countries in Illicit Financial Flows from Developing Countries for 2004-2013

Rank	Country	Average IFF	% of GDP
1	China, P.R.: Mainland	139.227,61	2,67
2	Russian Federation	104.977,21	7,25
3	Mexico	52.843,86	5,12
4	India	51.028,58	3,84
5	Malaysia	41.854,24	18,62
6	Brazil	22.666,66	1,32
7	South Africa	20.921,87	6,55
8	Thailand	19.176,79	6,50
9	Indonesia	18.070,96	3,08
10	Nigeria	17.804,05	6,73

Source: Kar and Spanjers (2015) on Illicit Financial Flows Report

In addition, based on the illicit financial flows report as shown in Table 1, Indonesia includes in the top 10 countries with the highest illicit financial flows. However, if the amount of average illicit financial flow is compared to the Gross Domestic Product (GDP), Indonesia only has illicit financial flow for around 3% of the GDP. Another country whose rank is below Indonesia such as Nigeria has bigger portion if the flow is compared to each country's GDP. Other countries who have high amount of GDP, and also included in the G20 country group such as China and Brazil, have lower portion of illicit financial flow.

From the statement from Ministry of Finance of the Republic of Indonesia (2016), the purpose of tax amnesty program is to bring local residents' asset invested in foreign countries back to Indonesia in order to boost economic growth. Those illicit financial flows are the major target for tax amnesty program. In addition, in terms of improvement in tax policy and tax administration, with the future implementation of Automatic Exchange of Information (AEOI) in 2018 and the revised banking sector law, tax amnesty program could gain tax revenue in the short term and even more revenue with complete and accurate taxpayers database in the long run.

The tax amnesty policy will eliminate tax liabilities, administration sanctions, and criminal sanctions in tax matters with declaring assets both located in domestic or foreign country and paying a redemption money. In the tax amnesty policy, every taxpayers have the right to participate in the tax amnesty, except the ones who are currently in the process of investigation which the file has been handed in completely to prosecutor, in the court's trial process, and already served a criminal sentence. Taxpayers join the tax amnesty by declaring their assets through a statement letter to tax office where their tax numbers are registered. Tax amnesty is valid on all tax obligation until the end of last tax year for income tax, value-added tax, and sales tax on luxury goods.

Regarding the redemption money, the law states that there are different rates and requirements in terms of timing to pay the redemption on assets. The regulation for redemption rates is as follows:

Table 2: Tax Amnesty Regulation

Type of assets	Redemption rate based on time of submission		
	July-September 2016	October-December 2016	January-March 2017
Assets in foreign countries are declared but not repatriated to Indonesia.	4%	6%	10%
Assets in foreign countries are declared and repatriated to and invested in Indonesia for minimum 3 years.	2%	3%	5%
Assets in domestic are declared and still retained in Indonesia for minimum 3 years.	2%	3%	5%

Source: Indonesian Law number 16 of 2016

Through the Tax Law No. 11 of 2016, there are advantages if the taxpayers decide to join tax amnesty program. Those tax residents only have to pay the main tax debt and a redemption which has much lower rate than regular penalty. Indonesian government also gives incentive for those tax residents to repatriate their assets from abroad in domestic economy by reducing the tax rate into half of the rate in tax amnesty program. Those assets are forced to stay in domestic economy for at least 3 years after they declare their amnesty and repatriation.

The effect of tax amnesty implementation can be seen from both government and taxpayer behaviors. Taxpayers compliance depends on their expectation of law enforcement from government and they do not really know what audits and enforcement power that government has (weak, or strong, or can be manipulated just to increase taxpayers compliance and tax revenue) (Stella, 1991). Taxpayers can also report more income during tax amnesty implementation if they choose to be honest, and they will decrease their reported income if they know there is higher probability of tax amnesty policy in the next future (Malik & Schwab, 1991).

In the case of Indonesia, taxpayers not only have the choice to declare their income and pay tax liabilities, but also have the choice to repatriate their assets in domestic investment for 3 years. The government of Indonesia believes that through this policy, repatriated assets could help to boost up economic growth and improve investment condition. This paper is going to analyze the tax amnesty program with asset repatriation for the benefit of Indonesian economy. This paper will analyze the taxpayers' decision on the tax amnesty policy based on a theoretical model. Then, we are going to analyze the impact of taxpayers' decision in the tax amnesty policy which involves the asset repatriation, to investment condition in Indonesia based on an empirical estimation to historical trend of investment flows. From the empirical

estimation, we are going to assess the condition of having investment flows with respect to the Indonesian tax amnesty policy realization data. Finally, we are going to assess another effect from repatriation to investment condition in Indonesia.

## 2. Literature Review

This section will cover theoretical background that explain the occurrence of tax amnesty. Later, we also include our model analysis with the case of tax amnesty policy in Indonesia. Since the Indonesian tax amnesty policy involves two options which are paying the tax liabilities with redemption money and the option to repatriate taxpayers' assets, we are going to use different method to analyze those option. This section only covers the analysis of paying tax liabilities option with theoretical model analysis and also the theoretical background for asset repatriation option which later will be covered in the empirical analysis section.

### 2.1. Theory of Tax Evasion and Tax Amnesty

One of the economic analysis of temporary tax amnesty is introduced by Stella (1991) which is assumed that taxpayers accumulate tax evasion and it is subject to audit. With tax amnesty program, it is expected that taxpayers will improve their compliance in the future only if they fear strong audit system and law enforcement from the government. From the theory by Cowell and Gordon (1988), tax evasion exists because taxpayers are not voluntarily finance the public goods and they have the choice to evade tax liabilities if the difference between their perceived benefit from public goods and their private cost is bigger. In his model, Stella (1991) highlights that government could enforce tax law through monetary penalties for noncompliance and also audits. However, audits are costly and Polinsky and Shavell (1984) argue that it is more efficient to levy monetary penalty as high as possible before raising the law enforcement. With the assumption of taxpayers have the probability to be audited and tax evasion could always be detected and levied by monetary penalties, the model by Stella begins with:

$$EU = E[\alpha|\Omega]U(ATY|Audit) + (1 - E[\alpha|\Omega])U(ATY|No Audit)$$

Where

$$ATY|Audit = Y - rT - [1 - r]TP - D(r)$$

And

$$ATY|No Audit = Y - rT - D(r)$$

The expected utility equation is total probability of choosing to amount of tax evasion given the expected audit rate ( $\alpha$ ) with sets of information ( $\Omega$ ). The utility depends on after tax income (ATY) which is already deducted by the amount of tax paid ( $rT$ ) where  $r$  is the fraction of income reported to the government and  $T$  is the fraction of tax rate ( $t$ ) multiply by income ( $Y$ ), amount of penalty paid when taxpayers are being caught by enforcement system ( $P$ ) which equals one plus penalty rate, and cost of evasion  $D(r)$ . The cost evasion function is assumed to have negative first derivative  $D'(r) < 0$ , which implies if there is more fraction of income reported to the government, the the cost of evasion decreases. The implication of equations above is taxpayers' evasion will stop with an audit or a participation in tax amnesty. Then, taxpayers have to weigh the loss of reporting pass tax liability compared to the risk of having future audit if they keep evading tax.

In line with the optimizing utility of taxpayers, Stella (1991) also explains that the government will choose optimal level of tax enforcement from the audit rate to minimize the cost of collecting tax revenue target, both from tax liabilities and penalty from tax amnesty program. In conclusion, Stella (1991) explains that it is important at the beginning of tax amnesty program to have strong expectation from taxpayers about government strong tax enforcement. Then a short-term tax amnesty will attract the ones who feel fear that the expected increase in short-term tax enforcement and marginal increase in expected permanent enforcement will exceed the loss of revealing past tax evasion.

With the similar starting point, Malik and Schwab (1991) begins explain their model analysis with the probability of taxpayers' utility function in joining tax amnesty program with the probability of taxpayers being audited and get fine, as shown by the function  $f$ . Therefore the taxpayers do not have certainty of their utility whether to join tax amnesty program or not. Malik and Schwab (1991) conclude that if the taxpayers decide to be honest, there are benefits from both taxpayers and government which are less probability of getting fine and more government revenue. However, similar to Stella (1991), the paper also explain about the cost which is less reported income by taxpayers if there is a rise in probability of tax amnesty in the future. Bayer (2014) also points out that the more taxpayers believe that there will be potential tax amnesty, the lower the real initial income declaration to the government.

Both papers from Stella (1991) and Malik and Schwab (1991) highlight the expectation of taxpayers which are the tax enforcement of the government in collecting taxes and government policy regarding future amnesty. Those could determine taxpayers' behavior in complying tax liabilities and joining tax amnesty.

Related to the rise of globalization, Bose and Jetter (2012) analyse if there is a success in a tax amnesty policy in bringing individuals from illegal sector to legal sector because they could be encouraged by the positive impacts of globalization such as technology transfers, productivity gains, and other spillovers. Those gains are only pronounced in the formal and legal sector of the economy. In addition, the transfer from illegal to legal sector makes individuals and corporations more visible and could be detected easily from non-payment of past tax liabilities. Thus, a tax amnesty policy could serve as an action of becoming legal with lower penalty rate. Bose and Jetter (2012) explains that if there is a positive and significant impact of globalization to taxpayers' income, tax amnesty will be successful. Bose and Jetter (2012) conclude that even without the increase of enforcement by tax authority (tax enforcement remains unchanged), tax amnesty could be successful and gain more payoff to taxpayers because they want to be included in the globalization system which could only be beneficial if they are staying in formal or legal sectors.

## **2.2. Theoretical Model Analysis of Tax Evasion and Tax Amnesty**

In this section, we analyze the theoretical model of taxpayers' decision in being honest to report more income and pay tax to the government. The model will provide condition if



taxpayers decide to report more income and pay more tax. Then, the model also explain the condition for taxpayers in order to participate in tax amnesty policy. First, we are going to continue the starting point of a tax evasion model which also used by Stella (1991) which explains that taxpayers who fear of getting caught through audit by tax authority will report more tax. Then, the taxpayers' utility to pay tax, in this case is without a presence of tax amnesty policy is as follows:

$$\begin{aligned}
 U(\text{taxpayers' decision}) &= \Pr(\text{getting caught through audit}) \cdot U(\text{getting caught}) \\
 &+ \Pr(\text{not getting caught}) \cdot U(\text{not getting caught})
 \end{aligned}$$

The taxpayers' utility is the sum of the probability of their utility of paying more tax because they fear of getting caught through audit, and the probability of their utility in avoiding tax and not getting caught through audit.

$$U(\text{taxpayers' decision}) = p \cdot U(ATY|Audit) + (1 - p)U(ATY|No Audit)$$

Where

$$\begin{aligned}
 ATY|Audit &= Y - rT - [1 - r]TP + D(r) \\
 ATY|Audit &= Y - r \cdot t \cdot Y - [1 - r]t \cdot Y \cdot (1 + \rho) + D(r)
 \end{aligned}$$

And

$$\begin{aligned}
 ATY|No Audit &= Y - rT + D(r) \\
 ATY|No Audit &= Y - r \cdot t \cdot Y + D(r)
 \end{aligned}$$

The utility depends on after tax income (ATY) which is already deducted by the amount of tax paid ( $rT$ ) where  $T$  is the fraction of tax rate ( $t$ ) multiply by income ( $Y$ ), amount of penalty paid when taxpayers are being caught by enforcement system ( $P$ ) which equals one plus penalty rate, and cost of evasion  $D(r)$ . The cost of evasion is the function of fraction of income which is reported to the tax authority ( $r$ ). In this analysis, we are going to assume that the function of cost of evasion is  $\ln(r)$ . The cost evasion function is assumed to have negative first derivative  $D'(r) < 0$ , which implies if there is more fraction of income reported to the government, the the cost of evasion decreases. Then, we are solving the model by substituting each components to the probability equation.

$$\begin{aligned}
 U &= p \cdot U(ATY|Audit) + (1 - p)U(ATY|No Audit) \\
 U &= p \cdot U(Y - rT - [1 - r]TP + D(r)) + (1 - p)U(Y - rT + D(r)) \\
 U &= p \cdot U(Y - r \cdot t \cdot Y - [1 - r]t \cdot Y \cdot (1 + \rho) + D(r)) + (1 - p)U(Y - r \cdot t \cdot Y + D(r))
 \end{aligned}$$

As we assumed before, the cost of evasion function has a negative first derivative. Thus, the first derivative of the utility function will be:

$$\begin{aligned}
 \frac{dU}{dr} &= -ptY + ptY(1 + \rho) - pD'(r) + (1 - p)(-tY) + (1 - p)(-D'(r)) = 0 \\
 -ptY + ptY(1 + \rho) - pD'(r) - tY + ptY - D'(r) + pD'(r) &= 0 \\
 ptY(1 + \rho) - tY - D'(r) &= 0
 \end{aligned}$$

$$D'(r) = ptY(1 + \rho) - tY$$

Since  $D(r) = \ln r$ , then  $D'(r) = 1/r$ . Thus, optimum  $r$  will be:

$$\begin{aligned} \frac{1}{r} &= ptY(1 + \rho) - tY \\ r &= \frac{1}{ptY(1 + \rho) - tY} \\ r &= \frac{1}{ptY + \rho \cdot ptY - tY} \\ r &= \frac{1}{pT + \rho \cdot pT - T} \end{aligned}$$

The final equation for the case without a tax amnesty policy reflects the equalization of marginal benefit and marginal cost of reporting fraction of income to government as tax authority. If the taxpayers decide to report more fraction of income to government, and evade less or even no fraction of income to foreign country, they will face less probability of getting caught through government's audit and less or even no penalty for avoiding income tax.

Then, we analyze a theoretical model in the presence of a tax amnesty policy in the case of Indonesia. The model is a modification of tax evasion model as we previously use.

$$\begin{aligned} &U(\text{taxpayers' decision}) \\ &= \Pr(\text{participating in tax amnesty}) \cdot U(\text{participating in tax amnesty}) \\ &+ \Pr(\text{not participating in tax amnesty}) \cdot U(\text{not participating in tax amnesty}) \end{aligned}$$

The taxpayers' utility is the sum of the probability of their utility of participating in tax amnesty policy, and the probability of their utility of not participating in tax amnesty policy which also can be said that the taxpayers will keep avoiding tax and have the probability to get caught through audit.

$$U(\text{taxpayers' decision}) = p \cdot U(ATY|Amnesty) + (1 - p)U(ATY|No Amnesty)$$

Where

$$\begin{aligned} ATY|Amnesty &= Y - rT - [1 - r]T - x \cdot Y \\ ATY|Amnesty &= Y - r \cdot t \cdot Y - [1 - r]t \cdot Y - x \cdot Y \end{aligned}$$

And

$$\begin{aligned} ATY|No Amnesty &= Y - rT - [1 - r]TP + D(r) \\ ATY|No Amnesty &= Y - r \cdot t \cdot Y - [1 - r]t \cdot Y \cdot (1 + \rho) + D(r) \end{aligned}$$

The variable  $x$  in the taxpayers' utility function with tax amnesty is the redemption rate. In this case, if taxpayers want to participate in tax amnesty policy, they have to pay redemption money which equals redemption rate multiply by their net income ( $Y$ ). The utility or payoff from taxpayers if they decide not to participate in tax amnesty policy, they will face an

expected payoff equals to the one with the probability of being caught without a tax amnesty policy.

In order for taxpayers to participate in tax amnesty policy, it must be that the utility of taxpayers participating in tax amnesty policy is larger than the utility of not participating in tax amnesty. To solve the model, we substitute each components into the probability equation.

$$\begin{aligned}
 & ATY|Amnesty > ATY|No Amnesty \\
 & Y - rT - [1 - r]T - x.Y > Y - rT - [1 - r]TP + D(r) \\
 & Y - r.t.Y - [1 - r]t.Y - x.Y > Y - r.t.Y - [1 - r]t.Y.(1 + \rho) + D(r) \\
 & Y - r.t.Y - [1 - r]t.Y - x.Y > Y - r.t.Y - [1 - r]t.Y - [1 - r]t.Y.\rho + D(r) \\
 & Y - x.Y > Y - [1 - r]t.Y.\rho + D(r) \\
 & -x.Y > -[1 - r]t.Y.\rho + D(r) \\
 & x < \frac{[1 - r]t.Y.\rho - D(r)}{Y} \\
 & x < \frac{[1 - r]T.\rho - D(r)}{Y}
 \end{aligned}$$

Or it can be written as:

$$xY < [1 - r]T.\rho - D(r)$$

Therefore, the taxpayers will participate in tax amnesty policy if the redemption money is lower than the amount of evaded tax, including the expected tax penalty and also the cost of evasion. Then, the taxpayers' participation in tax amnesty will lead to more taxpayers' income reported to the government which could increase the government revenue and more possibilities of asset repatriation.

### 2.3. Theory of Investment and Asset Price

Since, tax amnesty policy in Indonesia involves the option for asset repatriation. Our starting point to look at the effect of the repatriation to investment condition in Indonesia is determining the parameter of investment demand based on individuals' decision. Investment decision is a trade off between risk and return. People have money to invest and their decision depends on characteristics on assets and their preferences. Related to the return of investment, assumption applied to it is individuals prefer more return rather than less. However, related to risk of the investment, individuals tend to dislike risk (risk aversion). From Cochrane (2000), the price of asset could be derived by this formula:

$$p_t = E(m_{t+1}x_{t+1})$$

Where m is the Stochastic Discount Factor and x is the payoff of the asset. Stochastic Discount Factor (SDF) captures the relation with other factors and the benefit required to bear the risk which relates to the payoff (x). Thus, the price of investment for time t is determined by possible return of time t+1 (x) and the riskiness of the investment (m). From the portfolio theory explained by Cochrane (2000), individuals will minimize risk at given level of

investment return or maximize return at given level of risk. Both risk and return will determine the asset price and then the asset price determines investment decision. Cochrane (2000) also emphasizes that asset prices are set by investor's demand for asset, and that demand are set by investor's rational expectation. The asset price also follows the law of supply and demand where it will increase with smaller supply and higher demand of asset.

Hordahl and Packer (2007) argue that asset price is an important factor not only for investment decision, but also in driving economic fluctuations, allocating resources across sector and influencing the strenght of the financial system. Related to the function of asset price variable as an indicator for domestic economy condition, Hordahl and Packer (2007) explains that international co-movement or spillover of asset price from foreign economy could affect domestic asset price if there is positive relation between foreign asset price movement and domestic asset price movement. Hordahl and Packer (2007) also point out the determinant of asset price which definitely involves stochastic discount factor and future payoff of the asset.

Related to the impact of globalization, especially financial globalization, Aoki, et.al.(2009) explain the impact of free capital mobility to domestic economic activity. Capital owners in order to start production activity need optimal amount of capital which depends on the condition of financial credit. They also depend on asset price which could give them extra capital for the next production.

#### **2.4. The Crowding-Out Effect of Investment**

Another effect from the capital inflow which is stated in the last paragraph of the Introduction section is the crowding-out effect. A theory by Mundell (1957) about the international capital mobility emphasizes that a country which has large amount of capital will reduce its return on capital, thus the capital owner will move the capital to a country where there is less amount of capital which could provide a higher return on capital. The Indonesian tax amnesty policy brings taxpayers' money into the country and an option to have it invested in domestic market with the requirement time of three years. Related to the repatriation case which involves some amount of capital coming to a country, with the same theory by Mundell (1957), the increase amount of capital due to repatriation will reduce its return on capital. Then, the crowding-out investment takes place when investors decide to invest abroad since it is more interesting in terms of return on capital. Ahmed, et.al. (2015) also explain that the increasing amount of capital inflow, especially in the form of direct investment, causes the crowding-out of investment since firms could not compete in gaining market share and they lose much profits.

### 3. Empirical Analysis

We learn from the previous section that the tax amnesty policy will lead to more government revenue and possibility of asset repatriation. This section will explain the impact of asset repatriation option to investment condition in Indonesia. In order to assess the impact to investment in Indonesia, we conduct an empirical analysis. From the model by Cochrane (2000) as stated in the literature review section, investment decision could be observed through asset price. The asset price could serve as an indicator for investment demand. The higher the asset price, the higher the investment demand, and vice versa. The high amount of investment demand is beneficial for a country's economy. An investment is a source of financing in capital for production. Investment could bring technological spillover to the country, improve competition in input and product market which could reduce the cost of production, and improve governance standard (OECD, 2001). Then, asset price is also determined by stochastic discount factor, which is interest rate with the least risk, and payoff of the investment. From the studies by Hordahl and Packer (2007), and Aoki, et.al.(2009), they explain that international capital movement could also affect asset price which affect the amount of capital moving to a country. We also include investment flows to reflect international capital movement to Indonesia in the empiric model. The investment inflow also reflects the impact of asset repatriation. Therefore, the model is as follows:

$$SI = \alpha_0 + \alpha_1 GB10Y + \alpha_2 ROA + \alpha_3 FDI + \alpha_4 PI + \alpha_5 D.FDI + \alpha_6 D.PI + \varepsilon$$

SI is stock index, serves as dependent variable which reflect the value of asset price on average. Stock index reflects the average stock price of companies which are listed in each countries' stock exchange. Independent variables used in the model are long term government bond interest rate for 10 years maturity, (GB10Y), return on asset (ROA), foreign direct investment (FDI), and portfolio investment (PI). As a counterfactual, we also observe the financial condition in several developing countries which have similar characteristics with Indonesia. They are Brazil, India, Malaysia, Mexico, Philippines, and Thailand. Those countries are chosen because according to IMF classification as emerging and developing markets. And some of them have the same income group classification according to World Bank which is lower middle income group with GNI per capita from \$1006 until \$3955. Related to the international investment position, as seen from the graphs in Appendix, all observing countries are net receiver of capital.

From macroeconomic side, a paper by Bosworth, et al (1999) examines the impact of capital flows for saving and investment in developing countries. They use a fraction of saving and investment from GDP as dependent variable. They conclude that capital flows do affect investment growth in the developing countries, especially for foreign direct investment. However, it also depends on the productivity of investment in each countries which could generate different impact to each developing countries. In this paper, we are going to follow Bosworth, et al (1999) estimation using investment to GDP ratio as a dependent variable. The estimation model is as follow:

$$I/Y = \alpha_0 + \alpha_1 CGDP + \alpha_2 FDI + \alpha_3 PI + \alpha_4 D.FDI + \alpha_5 D.PI + \varepsilon$$

We use the ratio of gross capital formation to current GDP to see the investment condition in each country ( $I/Y$ ).  $CGDP$  is the change of GDP which we include based on the model by Bosworth, et al (1999). Similar to previous model on investment decision, the interesting variables here are the foreign direct investment (FDI) and portfolio investment (PI). We also create a dummy variable (D) to differentiate countries' condition, and include interaction variable which involve dummy variable for country and investment. Our main focus will be the interaction variables for Indonesia with different types of investment, both direct investment and portfolio investment (D.FDI and D.PI). Related to the asset repatriation case, the investment inflow interaction variable will be the starting point to analyze the impact of repatriation to investment condition in Indonesia.

Our hypothesis for asset price model is related to the theory by Cochrane (2000) which are for the government bond interest rate as a parameter for risk-free interest rate is having a negative relationship with asset price, while for the return on asset as a parameter of the assets' payoff is having a positive relationship with asset price. Since individuals will prefer less risk than the higher risk-free interest rate which compensate for higher risk will reduce the individuals decision in investment, thus it will reduce investment demand as reflected by a reduce in asset price. Then, individuals also prefer higher return where the higher return on asset means the increase in investment demand. Related to the capital movement, as stated by Aoki, et al (2009), in order to start a production, capital owners need additional capital which could be achieved through foreign investment inflow. And asset price as an indication for investment demand, is important to attract more capital inflow. However, according to a theory by Mundell (1957) which also stated at the last paragraph in the literature review section, the larger amount of capital inflow will reduce the country's rate of return compared to the rest of the world. The larger amount of investment demand will lower the investment price. Thus, the capital will move out to the rest of the world. For both asset price model and macroeconomic model, in this empirical estimation, we are going to analyze if there is a crowding-out effect of investment due to larger amount of capital inflow or investment demand in a country. Although for the macroeconomic model, based on a result from Bosworth, et al (1999), a capital inflow will affect positively to the investment in a country, especially for the direct investment.

In the empirical analysis, we will analyze with three different methods which are Ordinary Least Squares (OLS), Fixed Effect (FE), and Random Effect (RE). OLS method will analyze with minimizing the difference between true values of observed variables and predicted value with linear function from given independent variables. Thus, OLS method also provides an estimation with the least of variance. Since we involve various countries' data in the estimation, we are using a panel data analysis which mostly uses FE and RE estimation model. The difference between both models is the correlation between unobserved variables and independent variables. The RE model is used if there is no correlation between unobserved variables and independent variables. While the FE model is used if there is a correlation between unobserved variables and independent variables. However, the

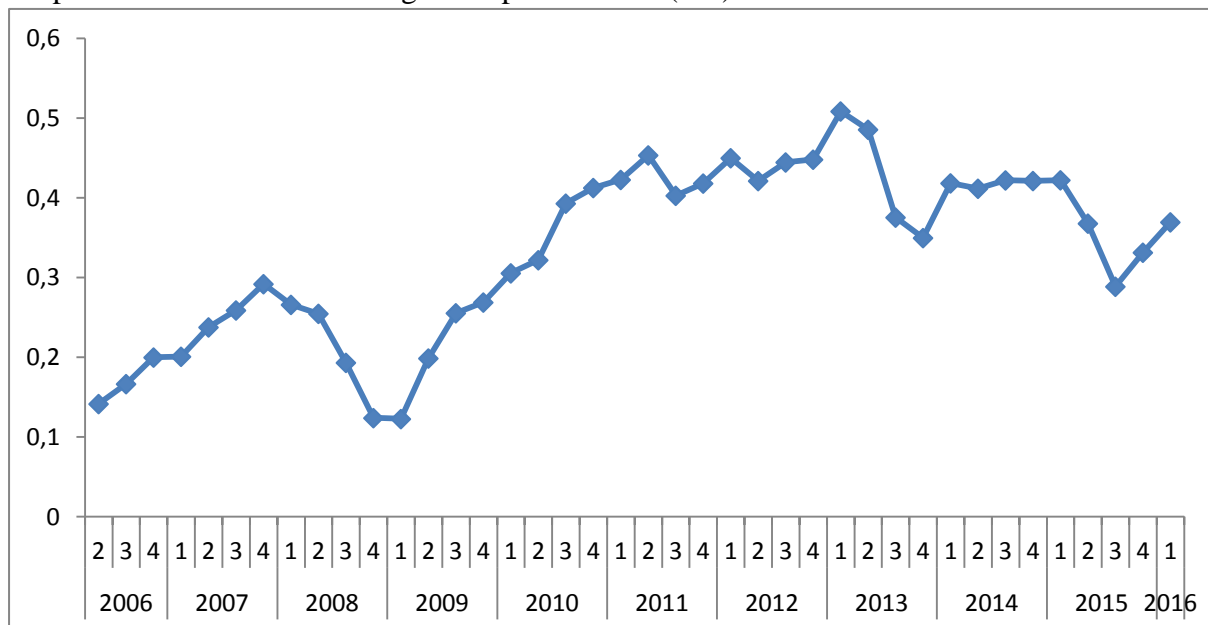
correlation must be constant or fixed over time. To have a constant correlation, then the unobserved variables must have time-invariant values.

From the empirical estimation, both from the asset price and macroeconomic approach, we are going to find the impact of repatriation asset which is observed through investment inflow to investment condition in Indonesia.

### 3.1. Data Description

In this section, we will explain about the data used for the empirical estimation. We also explain the historical trend for each variable for Indonesia as our main country of interest. The data for the empiric model is obtained from each country's financial database in Bloomberg database, and Balance of Payment from International Monetary Fund in quarter period. The observation time for empiric model lasts from second quarter of 2006 until first quarter of 2016. The observation period in the empirical estimation is before the period of tax amnesty policy in Indonesia. Thus, we will look at the historical evidence of the effect to the investment condition, both for the asset price model and macroeconomic model, and compare the magnitude of the correlation between investment inflow to investment demand and investment portion in the economy, to the realization amount of asset repatriation from the tax amnesty policy. Then, we are going to assess the impact of those repatriation amount to investment condition according to the historical trend.

Graph 2: Jakarta Stock Exchange Composite Index (JCI)



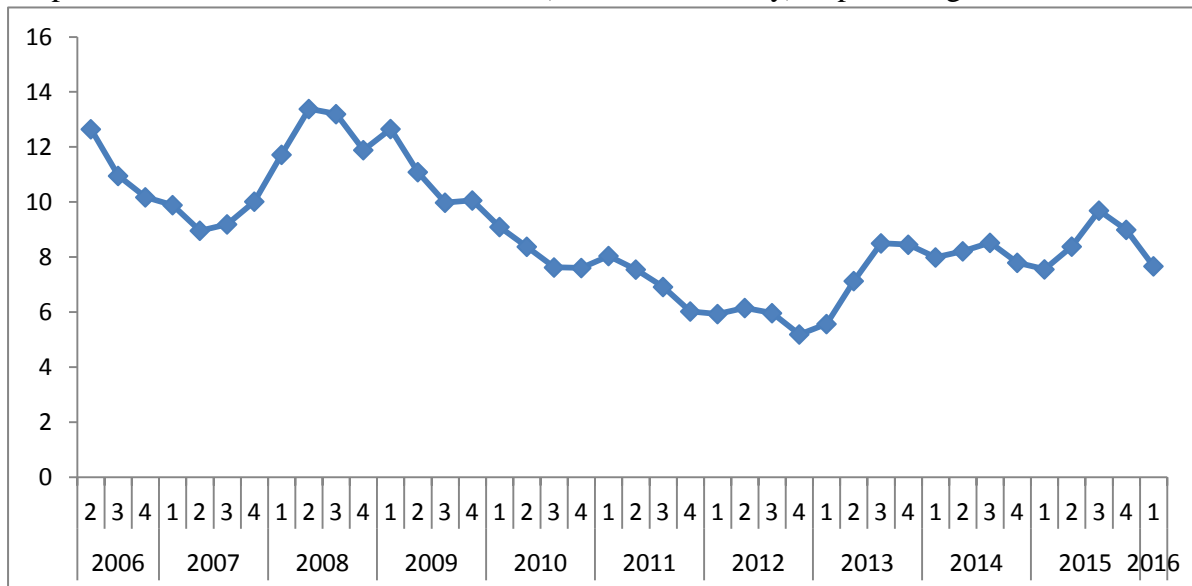
Source: Bloomberg Database

From the graph of Jakarta Stock Exchange Composite Index (JCI), it serves as an indicator to measure and report stock value changes of different stocks from enterprises who have listed in the Indonesia Stock Exchange. JCI is one of the main index used in Indonesia capital market. The stock index could be used to exhibit changes in asset price from public company.

From the graph, it implies that the index is increasing overtime, eventhough there are some decreasing period, especially during the financial crisis period. The increasing trend of stock price could be served as a stronger indication of increasing attractiveness for investors to invest in Indonesia.

From Cochrane (2000), individuals prefer less risk rather than more. Thus, when deciding an investment, individuals will look at an interest rate with the least risk as possible. In case of Indonesia, the least risk available is through long term government bond. The interest rate is higher than regular bonds since it could also include a risk premium. From the graph of Indonesia government bond interest rate, the overall trend is decreasing overtime. It implies that the cost of investment is decreasing and the condition could raise more attractive investment to the country.

Graph 3: Government Bond Interest Rate (10 Years Maturity) in percentage

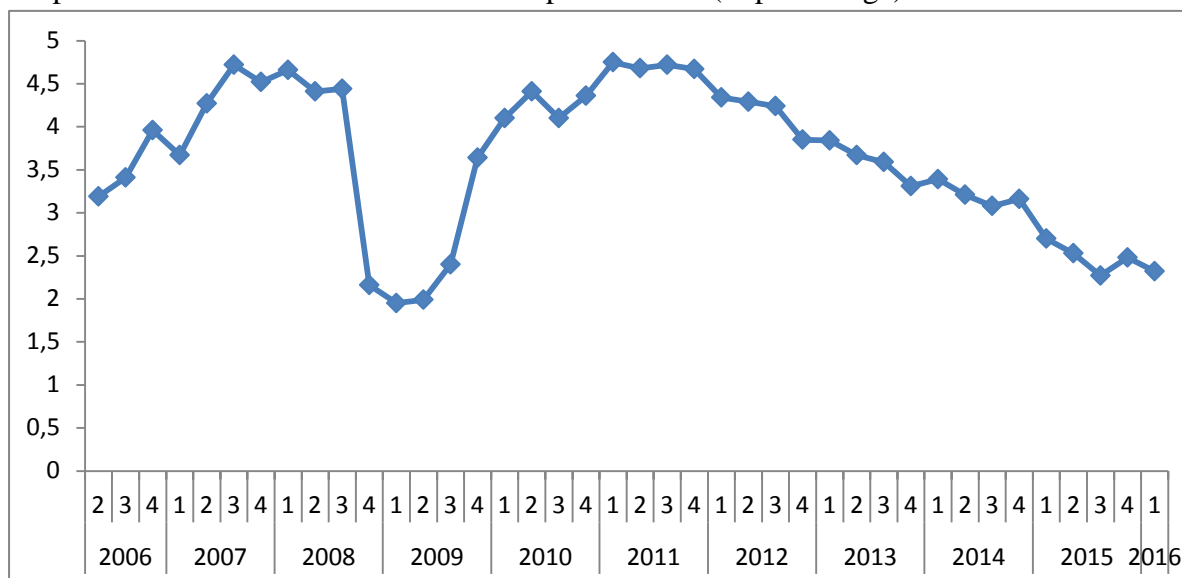


Source: Bloomberg Database

From the graph of return on asset, the trend fluctuates over time. The first period of observation, it increases until the second quarter of 2008 when global financial crises happened, then it decreases. The trend continue to increase after the crises, however it decreases until the first quarter of 2016. Return on asset shows how profitable Indonesian firms listed in the Indonesia Stock Exchange are relative to their total assets. It shows the capability of firm to generate more earning form their existing assets. From the graph, it can be implied that the return of asset follows the economic condition of Indonesia. The income earned until post crises period is influenced by global and economic condition. However, after the year of 2010, the decreasing rate of return on asset could be caused by increasing number of unproductive assets or decreasing income earned from existing assets.



Graph 4: Return on Asset for Jakarta Composite Index (in percentage)



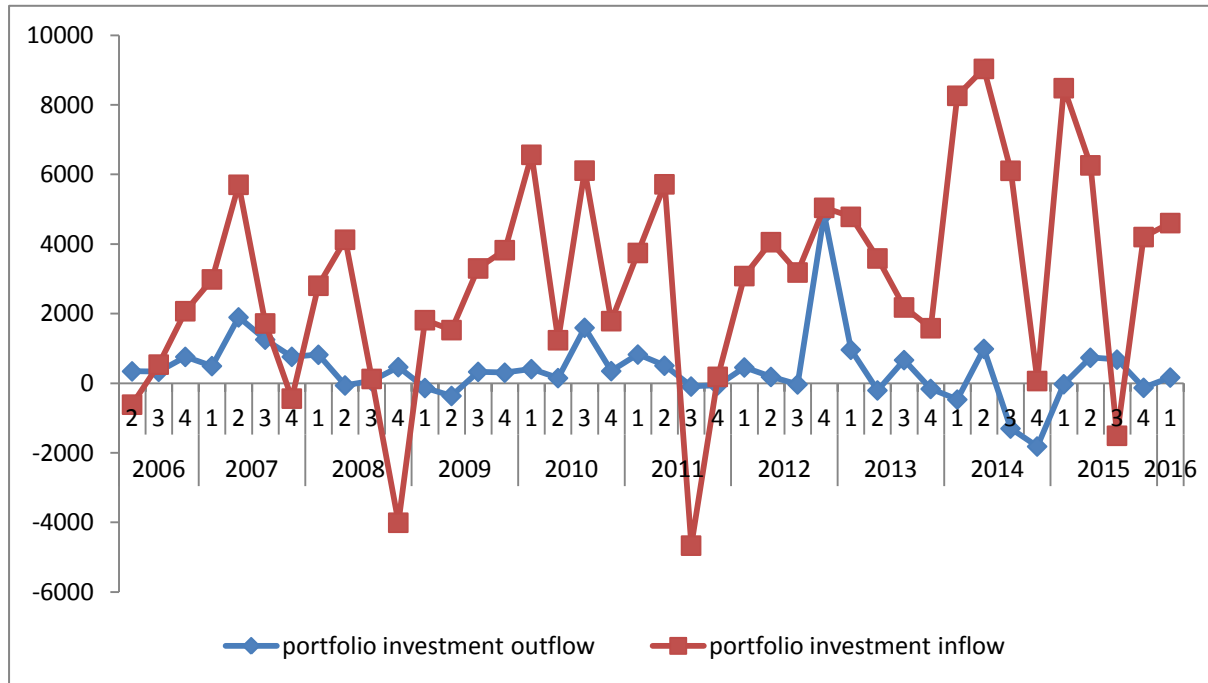
Source: Bloomberg Database

From both risk-free interest rate and return on asset variables, as the important variables to determine the asset price, comparing with the theory by Cochrane (2000), the risk-free interest rate is the only variable that explains the impact to asset price similar to the theory. However, for the return on asset variable, there are some other factors that also affect the opposite relationship to the asset price.

To look at the effect of international capital movement, which also could relate to repatriation policy, we are going to observe the flows of investment, both of portfolio investment and foreign direct investment. We look at the cross country IMF Balance of Payment database to take the investment flows data. In Balance of Payment, investment flows are recorded in the Financial Account. There are three kinds of investment which are portfolio investment, foreign direct investment, and other investment. However in this case, we are going only to use portfolio and direct investment. The IMF Balance of Payment Manual defines foreign direct investment as a cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. While portfolio investment is defined as crossborder transactions and positions involving debt or equity securities, other than those included in direct investment or reserve assets. The transactions are recorded in two categories with two different perspectives. First, there are assets acquisitions which record domestic residents' transactions. The plus sign in this category reflects that domestic residents are selling ownerships or shares and then they receive payments. While the minus sign reflects that domestic residents are buying ownerships or shares and then they make payments to foreign country. Since this category involves domestic residents financial activity in international capital market, we consider this as an investment outflow. Second, there are liabilities which record foreign residents' transactions. The plus sign in this category reflects that foreign

residents are buying ownerships or shares and then domestic will receive payments. While the minus sign reflects that foreign residents are selling ownerships or shares and then domestic country make payments. Since this category involves financial activity in the domestic country, we consider this as an investment inflow.

Graph 5: Indonesia Portfolio Investment (in millions USD)

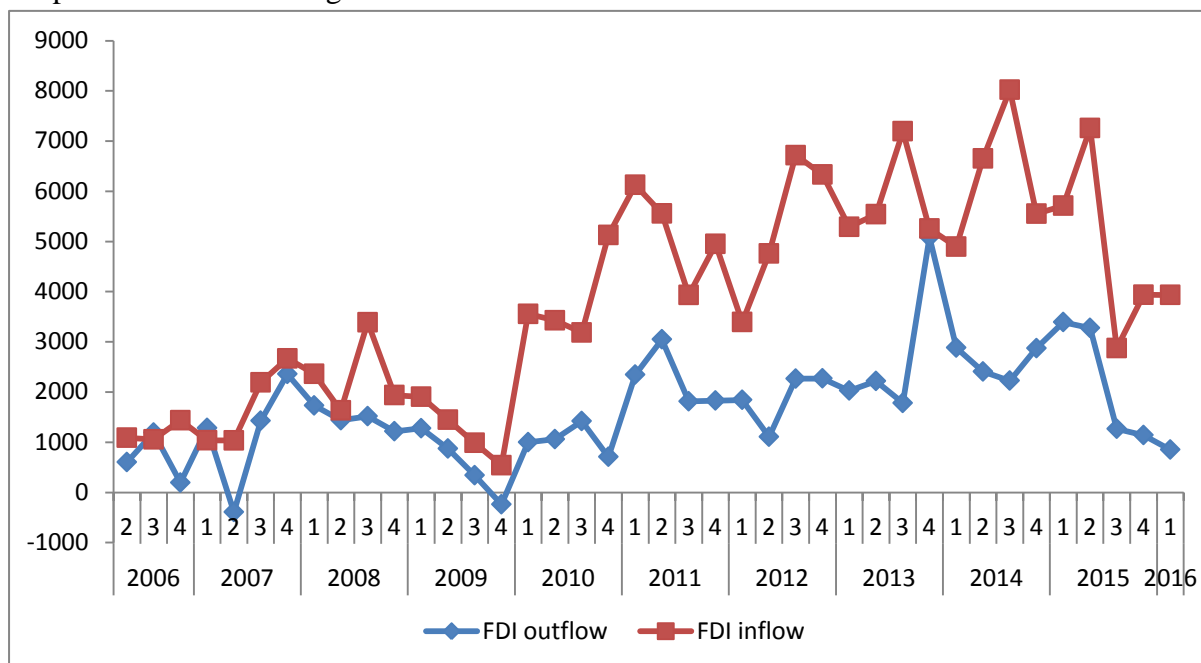


Source: IMF Balance of Payment Database (data.imf.org)

From the data of stock price and government bond interest rate, it can be implied that Indonesia could raise more investment. However, from the data of Indonesia portfolio investment, the amount of inflow is extremely fluctuative. It shows that the amount of investment inflow of Indonesia is not only determined by stock price and cost of investment, but also other unobservable factors. For the investment outflow, the amount of foreign shares bought by Indonesian resident is increasing during the year of 2014 and 2016. Overall, portfolio investment position reflects Indonesia as a net receiver of capital since the amount of investment inflow is larger than the amount of investment outflow.

For direct investment, there is always a positive position of direct investment coming to Indonesia. However, the amount is fluctuative over time. Similar with investment outflow, the amount is also fluctuative overtime, where most Indonesian people let the foreigners invest in their asset. Overall, both direct investment and portfolio investment historical data trend, Indonesia is a net receiver of international capital. However, since the amount of flows are really fluctuative overtime, we are going to estimate the real impact of those flows with the magnitude to the asset price variable in the regression result section.

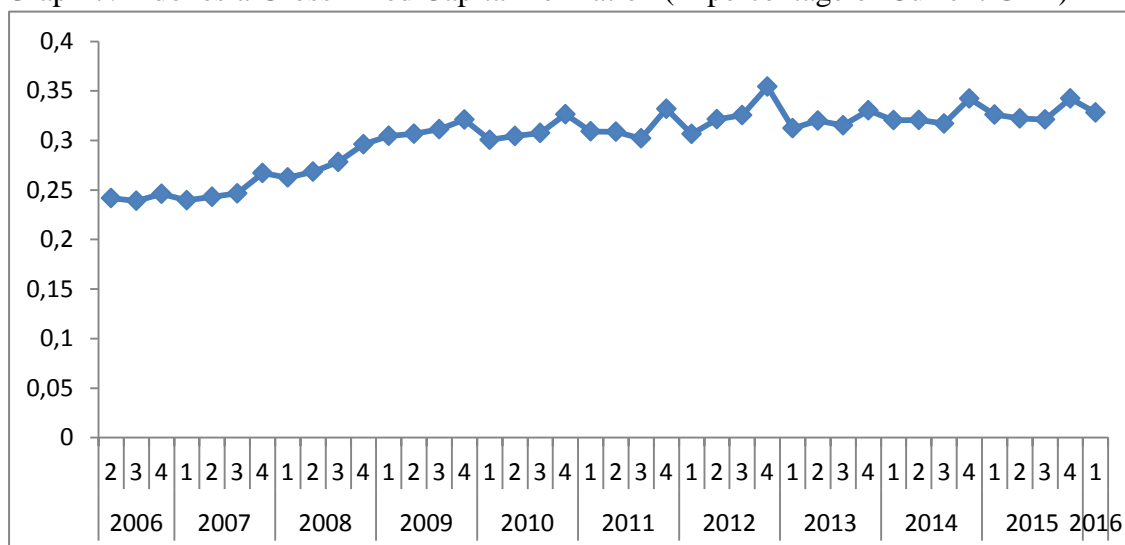
Graph 6: Indonesia Foreign Direct Investment in millions USD



Source: IMF Balance of Payment Database (data.imf.org)

If we look at macroeconomic perspective, according to the graph of ratio on Indonesia Gross Fixed Capital Formation to GDP, the portion of capital in Indonesia is increasing overtime. The gross fixed capital formation amount shows the value of fixed assets from business sectors, government, and households in Indonesia. As a portion of the GDP, the amount also show how much capital invested in Indonesia. Until the last quarter of 2016, the Gross Fixed Capital Formation to GDP ratio is reaching almost 35% of current GDP.

Graph 7: Indonesia Gross Fixed Capital Formation (in percentage of Current GDP)



Source: IMF (data.imf.org)

From the historical data trend, we observe that the asset price and gross fixed capital formation variables as our dependent variable are having a positive trend. That positive trend implies more investment demand in Indonesia which could improve investment condition in Indonesia. Since we focus on the impact of investment inflows to both dependent variables in order to estimate the impact of asset repatriation option in Indonesian tax amnesty policy, the historical data trend is not enough to observe the impact. Thus, the next section will cover the regression estimation to observe the impact.

### 3.2. Regression Result

In this section, we analyze the regression models with two different dependent variable which are stock price from the investment decision and demand theory and gross fixed capital formation to GDP ratio from macroeconomic perspective. We also use different method of estimation which are Ordinary Least Squares (OLS), Fixed Effect (FE), and Random Effect (RE).

Table 3: Regression Result with Stock Price as Dependent Variable

Dependent: Stock Price	(1) OLS	(2) RE	(3) FE	(4) OLS	(5) RE	(6) FE
Risk Free Interest Rate (GB10Y)	-0.216*** (0.0759)	-0.216* (0.111)	0.0756 (0.176)	-0.127** (0.0591)	-0.127 (0.152)	0.0705 (0.201)
Return on Asset (ROA)	0.0494 (0.0744)	0.0494 (0.162)	0.238 (0.129)	0.0692 (0.0599)	0.0692 (0.160)	0.237 (0.127)
FDI Outflow	0.267*** (0.0639)	0.267** (0.121)	0.0877 (0.0759)	0.213*** (0.0581)	0.213** (0.0962)	0.0947 (0.0883)
FDI Inflow	0.0610 (0.0644)	0.0610 (0.0413)	0.0717** (0.0256)	0.0664 (0.0620)	0.0664** (0.0322)	0.0705** (0.0259)
Portfolio Investment Outflow	-0.0733 (0.0611)	-0.0733* (0.0439)	-0.0212 (0.0309)	0.0125 (0.0578)	0.0125 (0.0589)	-0.0167 (0.0468)
Portfolio Investment Inflow	-0.135** (0.0638)	-0.135 (0.0976)	-0.0512 (0.0857)	-0.0393 (0.0612)	-0.0393 (0.106)	-0.0593 (0.0996)
Dummy for Indonesia x FDI Outflow				-0.369*** (0.0978)	-0.369*** (0.0983)	-0.0506 (0.0864)
Dummy for Indonesia x FDI Inflow				-0.0623 (0.0988)	-0.0623 (0.0589)	-0.00165 (0.122)
Dummy for Indonesia x Portfolio Investment Outflow				-0.246*** (0.0716)	-0.246*** (0.0838)	-0.0180 (0.0642)
Dummy for Indonesia x Portfolio Investment Inflow				-0.181** (0.0878)	-0.181** (0.0870)	0.0641 (0.118)
Constant	144.2*** (18.85)	144.2*** (31.00)	85.88* (41.33)	129.8*** (16.46)	129.8*** (37.63)	86.00* (42.90)
Observations	256	256	256	256	256	256
R-squared	0.112		0.105	0.386		0.107
Number of country1		7	7		7	7

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

From the regression result with stock price as dependent variable, it shows that in line with the asset pricing theory, if there is an increase in risk for investment, the asset price will decrease and reduce people's decision to invest. In this case, an increase in risk for investment can be explained by an increase in risk free interest rate. The increase in that interest rate implied that there is an addition for risk premium to compensate the risk. Thus, it will lead to higher cost of investment and then reduce the demand for investment.

The interesting variables in the regression are the interaction variables which explain the condition for Indonesia. For investment outflow, both direct and portfolio, the impact to stock price is negative, which also can be implied that the effect of investment outflow for Indonesia to stock price or investment demand is lower than other observing countries. Since we are using the definition from balance of payment record as stated in the previous section, an increase in investment outflow could be because there are more ownership or shares sold by Indonesian people to foreign resident, or there are less foreign assets bought by Indonesian residents. A decrease in investment outflow could be because there are more foreign assets bought by Indonesian people, or there are less ownership or shares sold by Indonesian people to foreign residents. Since the relationship is negative, thus if there are more foreign investment bought by Indonesia resident, return of investment in foreign countries will decrease. Then, investment in Indonesia will be more attractive since the return is higher now compare to foreign. The demand of investment will increase.

For investment inflow, the only interaction variable that has significant relationship is the interaction with portfolio investment inflow. An increase in investment inflow could be because there are more assets or shares are bought by foreign residents, or less assets or shares are sold to Indonesian resident. A decrease in investment inflow could be because there are less domestic assets bought by foreign residents, or more assets from foreign residents are sold to Indonesian residents. Since the relationship is negative, if there are more assets or shared bought by foreign residents, or there are more capital coming to Indonesia, the stock price will decrease due to lower return of investment with high amount if investment which could also lower the level of attractiveness to invest in Indonesia.

The result is different compared to the regression result with gross fixed capital formation to GDP ratio as a dependent variable. As our interesting variables, the interaction variables shows positive relationship for FDI flows and negative relationship for portfolio flows. It could be explained that direct investment has longer impact to economic condition rather than portfolio investment which involves short term period and more vulnerable to move across countries. Direct investment also could boost economic growth since it has spillover effect in providing more jobs and also increase income and living standard. As stated by Khaliq and Noy (2007), the impact of FDI in Indonesia is positive to boost up aggregate economic growth. The regression result also shows that there is no significant impact for portfolio investment inflow to the amount of capital in Indonesia. According to Evans (2002), foreign portfolio investment is commonly considered as a bad investment because there is certain fear attached to it due to complexity and central economic role in the financial system. However, the bad or good label could not be attached to both kinds of investment. Both direct

and portfolio investment could bring economic value for economic growth and they should be welcomed by proper regulations to maximize the benefits (Evans, 2002). Humanicki, et al (2013) explain that both investments are substitutes. During economically stable period, direct investment tends to dominate to gain economic growth. However, during insecurity and economic downturn, portfolio investment tends to gain importance compared to direct investment.

Table 4: Regression Result with Gross Fixed Capital Formation to GDP Ratio as Dependent Variable

Dependent: Gross Capital Formation/GDP	(1) OLS	(2) RE	(3) FE	(4) OLS	(5) RE	(6) FE
Change in GDP	-0.0380 (0.0608)	-0.0211 (0.0475)	-0.0208 (0.0482)	-0.0190 (0.0601)	-0.0190 (0.0537)	0.000209 (0.0341)
FDI Outflow	-0.265*** (0.0626)	0.0109 (0.0189)	0.0173 (0.0178)	-0.272*** (0.0685)	-0.272* (0.142)	0.00909 (0.0190)
FDI Inflow	0.0731 (0.0644)	0.0480 (0.0570)	0.0476 (0.0566)	0.0205 (0.0694)	0.0205 (0.158)	-0.00723 (0.0149)
Portfolio Investment Outflow	0.0716 (0.0576)	-0.0251 (0.0308)	-0.0273 (0.0304)	0.105 (0.0647)	0.105 (0.0820)	-0.000514 (0.0273)
Portfolio Investment Inflow	0.0921* (0.0529)	0.00523 (0.0235)	0.00300 (0.0242)	0.0559 (0.0573)	0.0559 (0.0836)	-0.0114 (0.0193)
Dummy for Indonesia x FDI Outflow				0.305*** (0.0763)	0.305** (0.120)	0.0348 (0.0182)
Dummy for Indonesia x FDI Inflow				0.408*** (0.0841)	0.408*** (0.142)	0.452*** (0.0180)
Dummy for Indonesia x Portfolio Investment Outflow				-0.223*** (0.0674)	-0.223* (0.121)	-0.111*** (0.0270)
Dummy for Indonesia x Portfolio Investment Inflow				-0.107 (0.0745)	-0.107 (0.141)	-0.0307 (0.0196)
Constant	149.8*** (16.95)	138.0*** (31.80)	137.7*** (5.129)	149.8*** (16.80)	149.8*** (40.76)	134.8*** (5.247)
Observations	280	280	280	280	280	280
R-squared	0.089		0.025	0.159		0.171
Number of country1		7	7		7	7

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

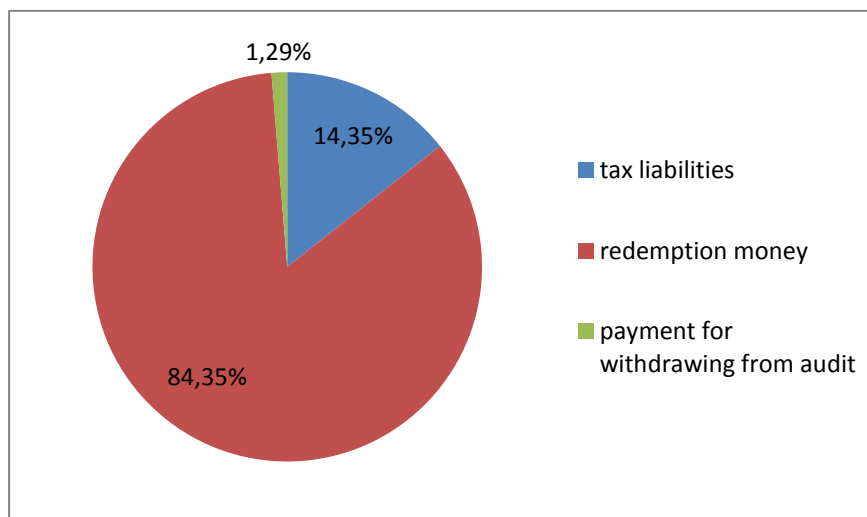
The regression results suggest that the impact of asset repatriation which can be reflected through investment inflow to Indonesia, is different to different dependent variables. The impact to stock price from FDI inflow is not significant, while portfolio investment inflow has negative impact to stock price. On the other hand, the impact to gross fixed capital formation to GDP ratio is positive if there is inflow in direct investment, while portfolio investment has no significant relationship. From both regression results, an increase in portfolio investment inflow for one million dollars will reduce the stock price to 0,181 point lower than other observing countries, while it does not have impact for gross fixed capital

formation in Indonesia. An increase in foreign direct investment inflow for one million dollars will increase the gross fixed capital formation in Indonesia 0,408% of current GDP higher than other observing countries, while it does not have impact for stock price in Indonesia. It is reasonable that stock price of assets which are listed in the Indonesia Stock Exchange are mostly in a form of short-term investment, thus portfolio investment has more impact to it rather than direct investment. Overall, based on the regression results, the impact of asset repatriation which observes through investment inflow, to the investment condition in Indonesia is positive if the repatriated asset is invested in the direct form, while it will have negative impact if it is invested through portfolio form.

### 3.3. Tax Amnesty Policy Realization

This section will cover the comparison between our theoretical and empirical analysis with the realization data from Indonesian tax amnesty policy. Indonesian Tax Amnesty Policy has ended on 31 March 2017, and government of Indonesia also has released the realization of the policy. From the tax amnesty policy, government of Indonesia has collected 135 Trillions Rupiah in total which accounts for tax liabilities payment, redemption money, and payment for withdrawing the tax audit case. The largest portion of the revenue is from redemption money which accounts for 114 Trillions Rupiah or 84,35% of total tax amnesty revenue. Tax liabilities payment and withdrawing audit payment contribute respectively 14,35% and 1,29% to tax amnesty revenue.

Graph 8: Government Revenue From Tax Amnesty Policy

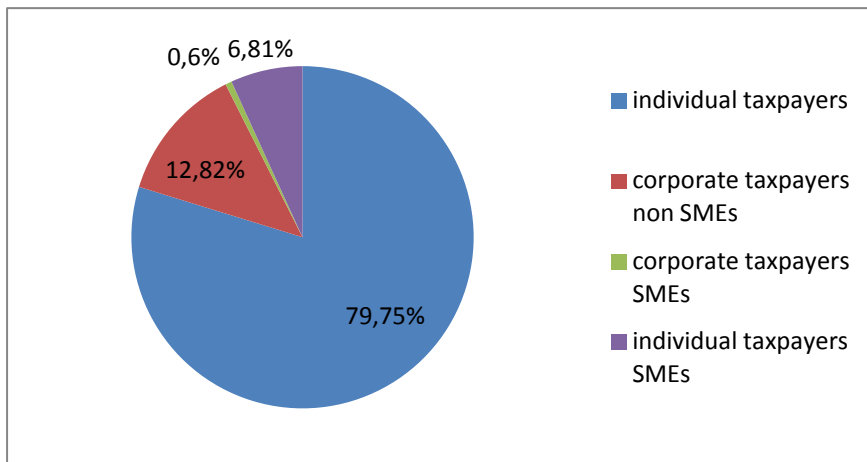


Source: Directorate General of Tax, Ministry of Finance, Indonesia ([www.pajak.go.id](http://www.pajak.go.id))

Related to the Graph 8, redemption money contributes the largest portion of tax amnesty revenue. And the largest amount of the redemption money comes from individual taxpayers' declaration which accounts for 91,4 Trillions Rupiah or 79,75% of total redemption money. Corporate taxpayers contribute around 14,7 Trillions Rupiah or 12,82% of total redemption money. Since there is a different requirement for SMEs which has lower redemption rate,

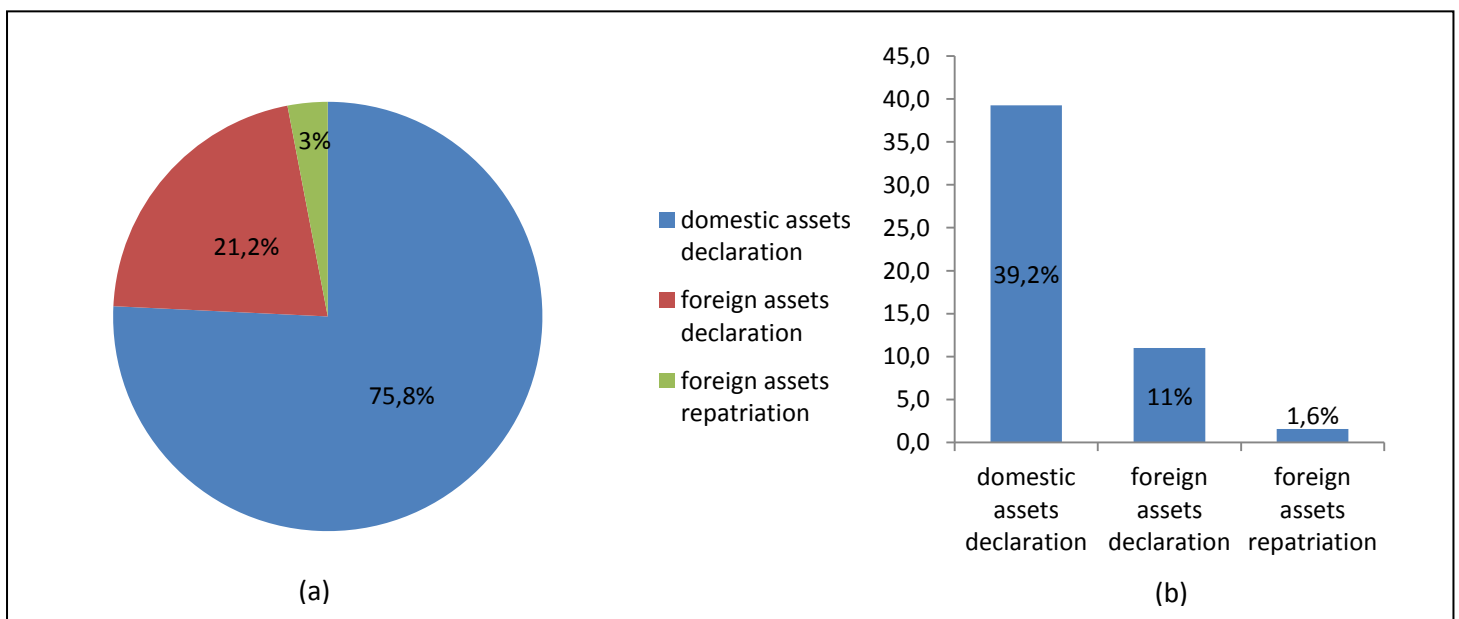
however the lower rate could not generate higher revenue. Individual taxpayers and corporate taxpayers from SMEs contribute respectively 6,81% and 0,6% of total redemption money.

Graph 9: Redemption Money Composition



Source: Directorate General of Tax, Ministry of Finance, Indonesia ([www.pajak.go.id](http://www.pajak.go.id))

Graph 10: Asset Declaration Composition of Total Declaration from Tax Amnesty Policy (a) and Gross Domestic Product (b).



Source: Directorate General of Tax, Ministry of Finance, Indonesia ([www.pajak.go.id](http://www.pajak.go.id))

As stated in the introduction section, one of the purpose of tax amnesty policy is to bring back Indonesia asset to national economy in order to boost up economic development. However, from the realization data of asset declaration, 75,8% of declaration, which accounts for 3.701 Trillions Rupiah, comes from domestic assets. And tax amnesty policy only brings around 147 Trillions Rupiah of 3% of total declared asset to be repatriated in Indonesia. From the theoretical analysis in the literature review section, we learn that in order for taxpayers to



participate in the tax amnesty policy the cost to pay for the redemption money must be lower than the amount of evaded tax, including the tax penalty and also the cost of evasion. If we look at the realization data, the assets declaration which means the option to pay tax liabilities during the tax amnesty policy, contribute about 97% of total reported assets to the Indonesian government. Therefore, the tax amnesty policy is successful to achieve the goals to increase tax revenue and improve tax system by collecting more information about taxpayers' assets.

On the other side, the option of asset repatriation policy brings 147 Trillions Rupiah which equals to around 11 Billions USD from July 2016 to March 2017. In 9 months or 3 quarters period, asset repatriation from tax amnesty policy still contribute positive gain to investment condition in Indonesia. Comparing the tax amnesty policy realization and empiric model result, if those repatriated assets are invested through direct investment, it could increase the amount of fixed capital in Indonesia relative to GDP. An increase of investment flow through direct form for one millions dollars will increase the value of fixed capital in Indonesia for about 0,4% of GDP higher than other observing countries. If repatriation asset brings around 11 billions dollars of investment flow or 1,6% of the GDP to be invested into direct form, it will increase the value of fixed capital in Indonesia for about 4,4% of GDP higher than other observing countries. However, if those assets are invested through portfolio investment, it could reduce the stock price which reflects also a reduce in investment demand. One millions dollars of investment flow that is invested through portfolio form will reduce the stock price for about 0,18 point lower than other observing countries. Thus, the 11 billions dollars of investment flow or 1,6% of the GDP to be invested into portfolio form, will reduce the stock price for about 1,98 point lower than other observing countries.

If we look at the realization data, we will see that the total declaration money from tax amnesty policy which accounts for 51,8% of GDP, is mostly used to generate tax revenue from domestic taxpayers who evade tax payment in the past. As stated in the introduction section, the Indonesian government's aims are accelerating economic growth through asset repatriation, encouraging tax reform, and increasing tax revenue. Eventhough the repatriated assets are beneficial for Indonesian economy through direct investment, the increase in economic growth does not dominate the government achievements from the tax amnesty policy. From the realization data, it turns out that tax reform seems to be the most successful aim of the policy. As stated in the introduction section, the government of Indonesia is improving tax system in order to face international standard of Automatic Exchange of Information. Thus, the tax amnesty policy is used to gather more information about taxpayers and their assets.

### **3.4. The Crowding-Out Effect Analysis**

In this section, we are going to analyze if there is a crowding-out effect of investment due to larger amount of capital inflow or investment demand in a country.

We have estimated that the impact of portfolio investment inflow is negative to the stock price, while the impact of direct investment inflow is positive on the gross capital formation.

Related to the possibility of a crowding-out investment, negative impact of portfolio investment inflow to stock price will lead to the crowding-out indication since the investment demand in Indonesia is decreasing. However, we look at the correlation between investment inflow and investment outflow, as indicated in the Table 5, all correlations both for direct investment and portfolio investment have a positive sign. Based on the interpretation of investment flow from Balance of Payment data in the data description section, the positive sign implies that there are more shares or ownerships that are sold to foreign residents when capital inflow increases. Thus, a decrease in the stock price indication does not lead to a crowding-out investment. From the investment outflow condition of each observing countries, as shown from the Graph A1 and Graph A3 in the Appendix, on average, all observing countries are net receiver of capital from foreign countries. Since we are using the historical data trend to estimate the impact, the crowding-out effect could occurs under the condition of international perfect capital mobility. In the case of Indonesian tax amnesty policy, there is a government intervention which could change the investment decision in Indonesia and could also affect the condition of international capital mobility. Therefore, we are going to look if the crowding-out effect of investment occurs during the period of tax amnesty policy.

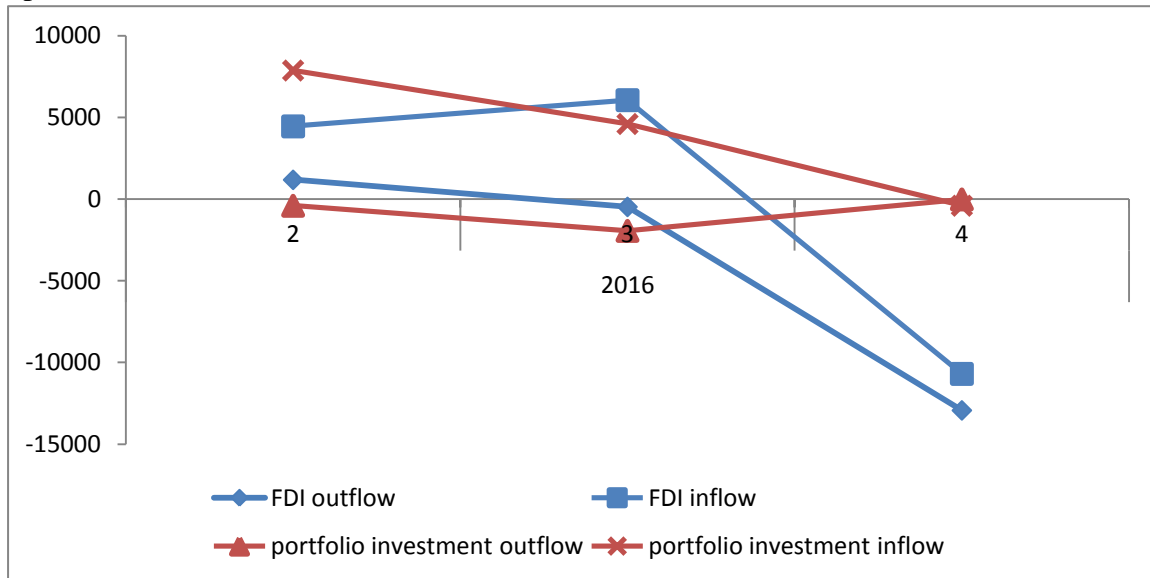
Table 5: Correlation between Investment Flows

	FDI Outflow	FDI Inflow	PI Outflow	PI Inflow	D_FDI Outflow	D_FDI Inflow	D_PI Outflow	D_PI Inflow
FDI Outflow	1							
FDI Inflow	0,1364	1						
PI Outflow	-0,0535	-0,0113	1					
PI Inflow	-0,0135	0,0817	0,0358	1				
D_FDI Outflow	0,066	0,0756	0,0406	0,1364	1			
D_FDI Inflow	-0,1052	0,1896	0,0459	0,1875	0,7845	1		
D_PI Outflow	-0,1322	0,0331	0,2871	0,1073	0,6771	0,7381	1	
D_PI Inflow	-0,1258	0,0946	0,0393	0,2688	0,7699	0,8853	0,7443	1

The previous empirical estimation, and also the correlation between investment inflow and outflow are conducted based on the historical trend. However, if we look at the period during the tax amnesty policy which lasts from the third quarter of 2016 until the first quarter of 2017, the condition is different. From graph 11, we look at the investment flows in Indonesia until the end of 2016. Both foreign direct investment outflow and inflow show negative sign which means there are more foreign assets bought by domestic resident and there are more domestic assets which previously held by foreign residents are sold. The position for portfolio investment inflow also decreases to negative amount which means there are more foreign residents sell their ownership in domestic investment. That amount also exceeds the amount of domestic ownership that has been bought by foreign residents. For that condition, it gives an indication that there is a crowding-out investment. However, according to Bank Indonesia (2017), the negative position on both investment flows is caused by the price of foreign

currency since there is an appreciation of US Dollar value compared to other currency, including Indonesian Rupiah. Thus, investors expect more return by investing in foreign assets or ownership.

Graph 11: Indonesia Investment Flows Position for Q2 2016- Q4 2016, in millions dollars



Source: IMF Balance of Payment Database (data.imf.org)

To sum up the empirical analysis section, we learn that the impact of asset repatriation option which observes through investment flows to investment condition in Indonesia depends on the form of investment. The impact of FDI inflow is not significant, while portfolio investment inflow has negative impact to stock price. On the other hand, the impact to gross fixed capital formation to GDP ratio is positive if there is inflow in direct investment, while portfolio investment has no significant relationship. Thus, repatriation asset option is successful to improve investment condition in Indonesia if it is invested through direct form. However, since the asset repatriation option is a part of tax amnesty policy in Indonesia, we could not state that the tax amnesty policy is successful in bringing assets back into Indonesia since the majority of taxpayers decide to participate in the tax amnesty policy only to pay tax liabilities with lower cost than the tax penalty cost. Related to the crowding-out effect because of more investment inflow, we could see from the data during the period of tax amnesty policy which shows that there is an increase in investment outflow both from the perspective of domestic residents and foreign residents. However, a statement from Bank Indonesia (2017), the outflow is caused by dollars appreciation. Thus, the tax amnesty policy did attract asset repatriation, but it does not cause the crowding-out effect of investment.

## Conclusion

The government of Indonesia released a tax amnesty policy from July 2016 until March 2017 to eliminate tax penalties done by Indonesian tax residents with respect to unreported assets and investment. The aims of the tax amnesty policy is not only to improve tax system in Indonesia by collecting more information on taxpayers asset, but also to increase economic growth through an asset repatriation option which could improve investment condition in Indonesia. Taxpayers decide to report more fraction of income to the government of Indonesia, and evade less to foreign country with the consideration of the costs they will bear. They will face less probability of getting caught through government's audit and less or even no penalty for avoiding income tax if they report more income to the government. When they decide to participate in the tax amnesty policy, they also consider the cost of evading money compared with the cost of the amnesty. Thus, taxpayers will choose to participate in the tax amnesty policy if the cost of the amnesty which comes from redemption money is lower than the cost of evading money in foreign countries.

Related to the asset repatriation option, if the taxpayers decide to repatriate their assets to be invested in domestic financial instrument, they will receive less redemption rate of the amnesty. The government of Indonesia also has a goal to improve economic growth through that repatriation policy. From the empirical analysis and realization data, asset repatriation from tax amnesty policy still contribute positive gain to investment condition in Indonesia. If those repatriated assets are invested through direct investment, it could increase the amount of fixed capital in Indonesia relative to GDP. The repatriation asset brings around 11 billions dollars of investment flow or 1,6% of the GDP to be invested into direct form, thus it will increase the value of fixed capital in Indonesia for about 4,4% of GDP higher than other observing countries. However, if those assets are invested through portfolio investment, it could reduce the stock price which reflects also a reduce in investment demand. There is no crowding-out effect of investment if there is high demand of investment in Indonesia since Indonesia is a net receiver of capital.

Realization data of the tax amnesty policy also shows that, despite the government's aims for the tax amnesty policy which are accelerating growth from asset repatriation, encouraging tax reform, and increasing tax revenue, the policy is mostly used for domestic residents who evade tax payment in the past. And the biggest contribution of the policy seems to improve tax reform by collecting more information about taxpayers' assets through the tax amnesty policy.

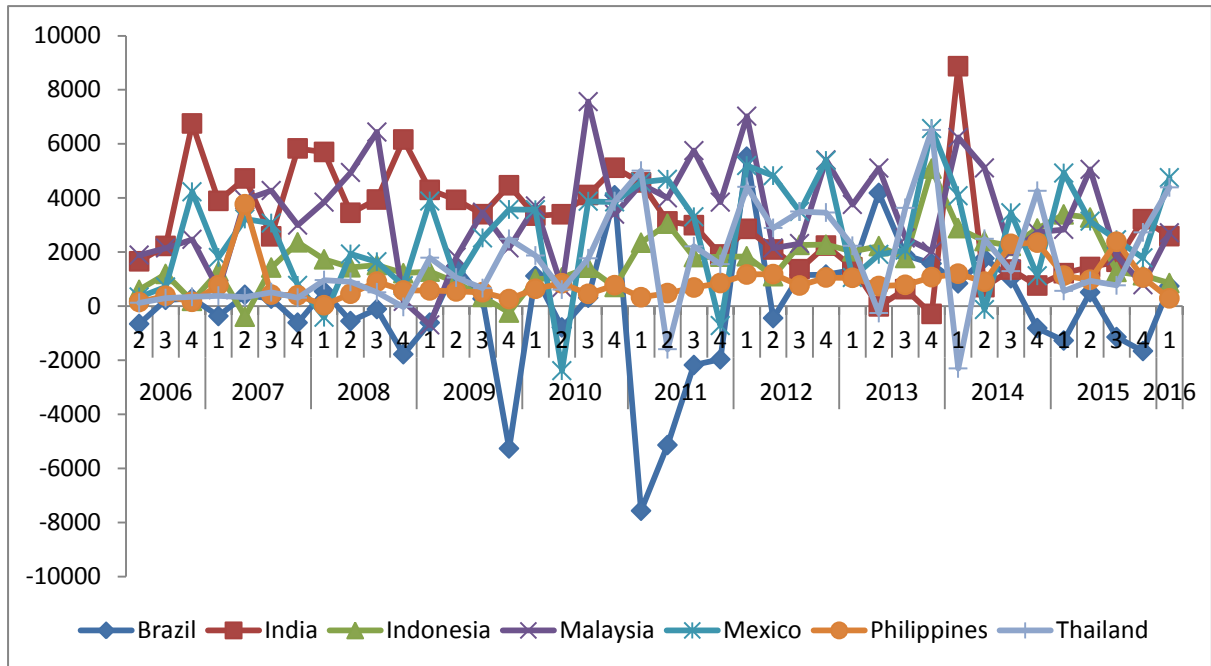
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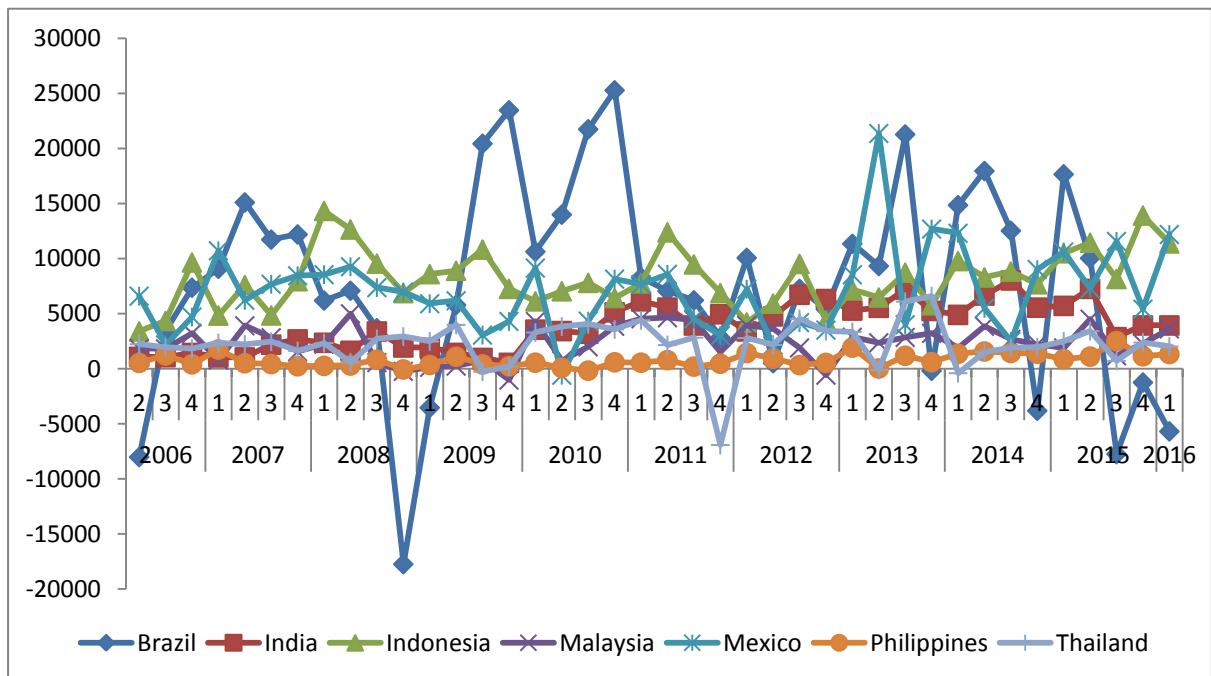
## Appendix

Graph A1: Foreign Direct Investment Outflow



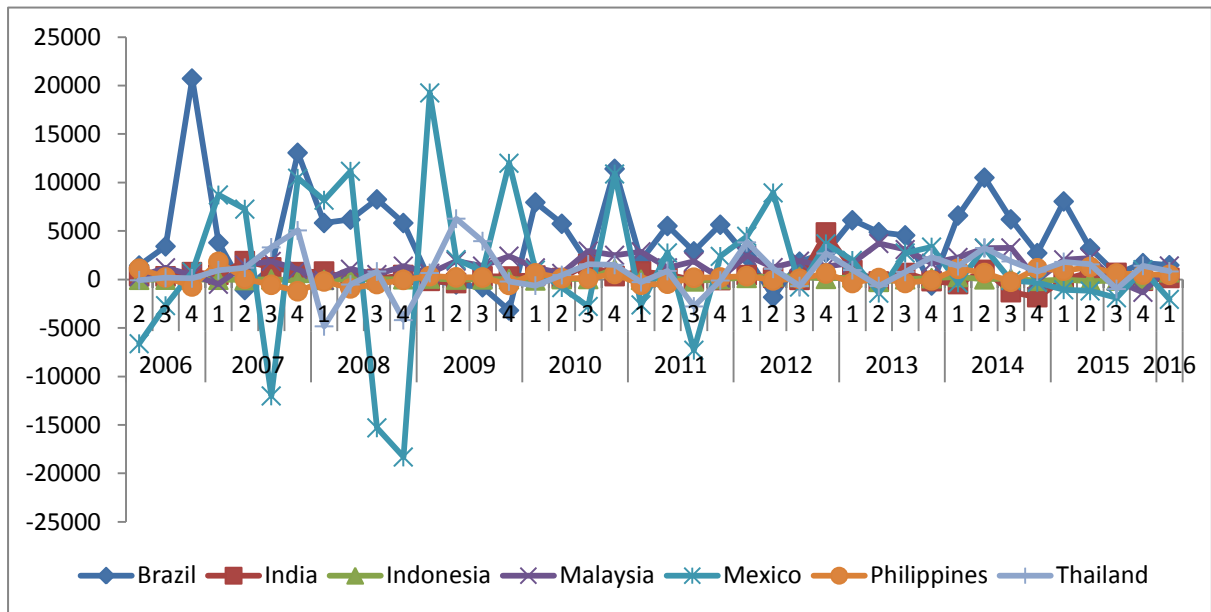
Source: IMF Balance of Payment Database (data.imf.org)

Graph A2: Foreign Direct Investment Inflow



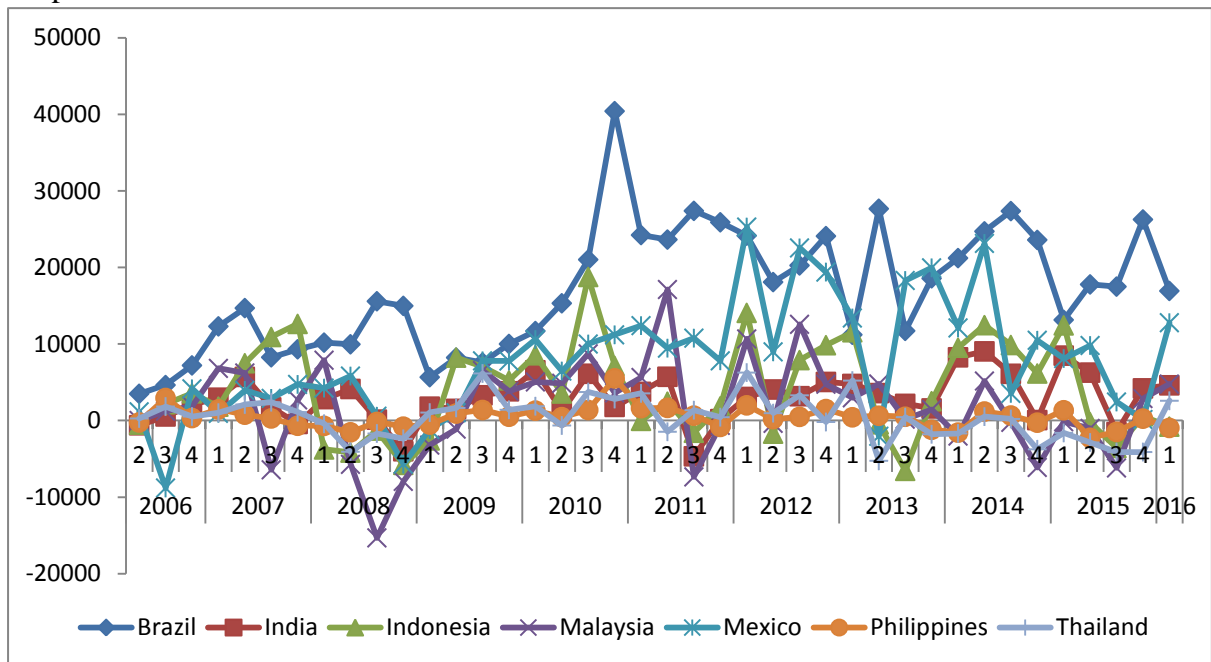
Source: IMF Balance of Payment Database (data.imf.org)

Graph A3: Portfolio Investment Outflow



Source: IMF Balance of Payment Database (data.imf.org)

Graph A4: Portfolio Investment Inflow



Source: IMF Balance of Payment Database (data.imf.org)