



Munich Personal RePEc Archive

# **Does Corruption Pay in Indonesia? If So, Who are Benefited the Most?**

Pradiptyo, Rimawan

Faculty of Economics and Business, Universitas Gadjah Mada,  
Indonesia

17 September 2012

Online at <https://mpra.ub.uni-muenchen.de/41384/>

MPRA Paper No. 41384, posted 17 Sep 2012 13:34 UTC

# Does Corruption Pay in Indonesia? If So, Who are Benefited the Most?<sup>1</sup>

---

Rimawan Pradiptyo<sup>2</sup>  
Department of Economics, Faculty of Economics and Business  
Universitas Gadjah Mada  
Indonesia

## Abstract

This paper aims to assess the discrepancies in sentencing corruptors by judges in Indonesia's judicial system. The data are based on the Supreme Court's decisions during the period of 2001-2009 which available in public domain in [www.putusan.mahkamahagung.go.id](http://www.putusan.mahkamahagung.go.id). The data comprise of 549 cases, which involved 831 defendants. The defendants have been classified into five groups depending on their alleged scales of corruptions (i.e. petty, small, medium, large and grand scale of corruptions).

The explicit cost of corruption during the period of 2001-2009 was Rp73.1 trillion (about US \$7.86 billion). In this paper, total financial punishment was estimated as the summation of the value of fines, seizure of assets (monetary only), and the compensation order sentenced by judges. The total financial punishment sentenced by the supreme judges during the period of 2001-2009 was Rp5.33 trillion (about US\$573.12 million), therefore Rp67.77 trillion (US\$7.28 billion) gap between the explicit cost of corruption and total financial punishment sentenced shall be borne by the tax payers.

Logistic and Tobin's logistic (TOBIT) regressions have been used to analyse both the likelihood and the intensity of sentencing offenders, respectively, with particular punishments (i.e. imprisonment, fines, compensation order, etc.). The results show that the probability and the intensity of sentencing across various types of punishment do not correspond to the scale of corruptions. Offenders who committed petty and small scales corruption tend to be punished more severely than their medium, large and grand corruptors.

**Keywords:** Corruption, Court Decisions, Probability of Sentencing, Intensity of Sentencing, Logistic Regression, Tobin's Logistic (TOBIT) Regression.

**JEL Classifications:** D02, D04, K14, K42

---

<sup>1</sup> I would like to express my gratitude to conference participants in Kolkata, India, Perth, Scotland, Cambridge, UK for constructive feedback. I am indebted to Harry Gemilang, Seri Damayanti, Sony Sasongko for excellent assistantship in collecting the data. All remaining errors are my responsibility.

<sup>2</sup> Contacting email address: [Rimawan@gadjahmada.edu](mailto:Rimawan@gadjahmada.edu), [Rimawan@feb.ugm.ac.id](mailto:Rimawan@feb.ugm.ac.id)

## 1. Introduction

According to the utilitarian approach, the decision of a potential offender to commit an offence or not depends on the expected costs and benefits of the conduct. The expected costs of conducting an offence has been modelled as the interaction between any costs incurred (financially and non-financially) by the potential offenders if they have would have failed in committing an offence and the probability of being caught. Similarly, the expected benefits of conducting an offence can be estimated as the probability of success in conducting an offence and any gains (tangible and intangible) arose from conducting the offence. Becker (1968) used decision theory to analysed offenders and potential offenders behaviour. Excellent literature surveys in this area have been conducted by various authors including Garoupa (1997), Eide (2000, 2004), Bowles (2000) and Polinsky and Shavell (2000, 2007).

Another group of economists who use game theoretical analysis tend to be more pessimistic about the effectiveness of punishment as a mean to deter offending (Tsebelis, 1989). This article triggered a long debate involving several authors, including Bianco/Ordershook/Tsebelis (1990), Weissing and Ostrom (1991), Hirshleifer and Rasmusen (1992), Tsebelis (1990, 1991, 1992, 1993) and Andreozzi (2004). Recently Pradiptyo (2007) refined the inspection game proposed by Tsebelis, and showed that actually there is not so much discrepancy in the solution between decision theory and game theoretical approaches.

Irrespective of whether the approach is using either decision theory or game theory, it is assumed that potential offenders are rational. Individuals are going to commit an offence if the expected benefits of the activity exceed the expected costs of offending. Consequently, in order to deter individual from committing an offence, the authority may increase the expected costs of offending bourned by potential offenders.

Attempts to increase the expected costs of offending can be done in several ways. The criminal justice authority may endeavour either to increase the probability of conviction, or alternatively, they may increase the severity of punishment. Indeed both possible scenarios are costly. In order to achieve the optimum level of deterrence, however, the criminal justice authority has two possible scenarios either by setting low probability of detection with high intensity of punishment or by setting high probability

of detection with low intensity of punishment (Becker, 1968, Garoupa, 1997, Garoupa and Klerman, 2002, 2004, Polinsky and Shavell, 2000, 2001, 2007).

A similar approach may be used in tackling corruptions. Any potential corruptors are rational individuals and accordingly they would conduct costs-benefits analysis prior to involve in corruptions. As applicable to other type of offences, the intensity of corruptions can be divided into several groups for instance small, medium and large scales of corruptions. The classification of the groups depends on the intensity of misallocation of resources owing to corruptions. Ideally, given the probability of detection and conviction, corruptors who committed larger scale of corruptions should receive sentence with higher intensity of punishment. In the case for which the courts determined to use financial punishment, then ideally a substantially higher intensity of financial punishment should be sentenced to more serious corruptors.

It should be noted that the characteristics of corruptors tend to be different in comparison to offenders conventional crimes. Table 1 provides comparison of characteristics between conventional offenders and corruptors. It may not be surprising, therefore, that combating corruptions is more difficult than tackling conventional crimes.

Table 1: Characteristics of Conventional Offenders and Corruptors

Conventional Offenders	Corruptors
<ul style="list-style-type: none"> <li>•The majority come from low income and low education background (Einat, 2004) <ul style="list-style-type: none"> <li>• In many cases they offended due to fulfilling necessities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•They come from high income and high education backgrounds</li> </ul>
<ul style="list-style-type: none"> <li>• Offending behavior is age sensitive (Bowles and Pradiptyo, 2005)</li> </ul>	<ul style="list-style-type: none"> <li>•The offending behavior is not age sensitive</li> </ul>
<ul style="list-style-type: none"> <li>•In many cases offenders were victims of bullying or crimes (Bowles &amp; Pradiptyo, 2005)</li> </ul>	<ul style="list-style-type: none"> <li>•The use of sophisticated techniques which may be difficult to prove it</li> </ul>
<ul style="list-style-type: none"> <li>• The detection rate tend to be high</li> </ul>	<ul style="list-style-type: none"> <li>• The detection rate tend to be lower since offenders may use their influence and power to prevent investigation</li> </ul>

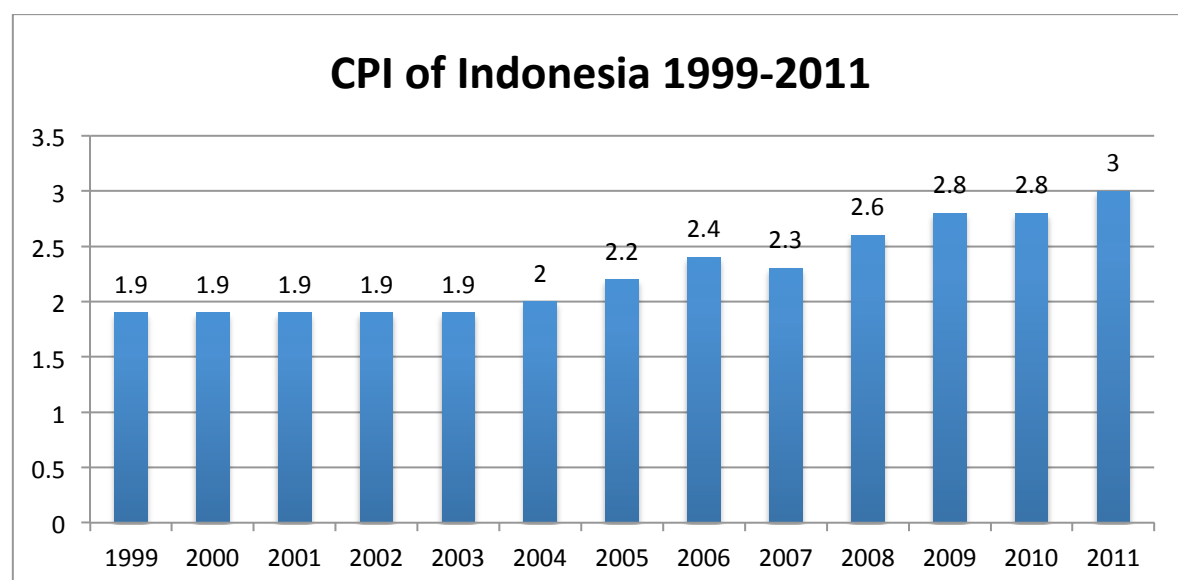
This paper aims to assess Indonesia's court decisions in combating corruptions across various scales of corruptions. The data used in this study are based on the Indonesia Supreme court decisions from year 2001-2009. The dataset consists of 549 cases,

involving 831 defendants. All cases have been published in the official website of the Supreme Court in the following URL: <http://putusan.mahkamahagung.go.id>. The gravity of corruption and various anti corruption programs in Indonesia is discussed in section 2. Section 3 discusses the judicial system in Indonesia. Logistic and Tobin's logistic regressions are used to evaluate the Supreme Court's decisions. The model and the results of the analysis are discussed in section 4 and 5, respectively.

## 2. Corruption and Anti Corruption Programs in Indonesia

The Corruption Perception Index (CPI) in 2011 by the Transparency International placed Indonesia as the 100<sup>th</sup> country out of 183 countries in the world. In 2011, the CPI for Indonesia was 3.0, a small increase from CPI in 2010 that was 2.8. In 1999 the CPI of Indonesia was just 1.9 (See Figure 1). Indeed, according to the CPI, there is an improvement of condition in Indonesia, with respect to the perception of the subjects who take part in as respondents for developing the CPI. The improvement may not, however, necessarily sufficient to show the improvement in Indonesia.

Figure 1: The Corruption Perception Index (CPI) of Indonesia 1999-2011



Source: Transparency International, 1999-2011.

Recently, a survey by Hong Kong-based Political & Economic Risk Consultancy Ltd in 2010 scored Indonesia 9.07 out of 10.00 and placed Indonesia as the most corrupt country in Asia-Pacific region. This result was higher in comparison to 2009, which was

7.69. It turns out that problem of corruption in Indonesia is more acute than other countries in the region such as Cambodia, the Philippines, India, Thailand and Vietnam.

Corruptions in Indonesia had been flourished since the end of President Soekarno's regime. Under President Suharto's regime, corruptions had become spread out to all level of bureaucracy. After the end of President Suharto's regime, reformations have been conducted in various fields, including politic, economic and also law. Anti corruptions programmes have been launched by the GoI post Suharto's era, ranging from:

1. Ratification of Law no 31/1999 or Anti Corruption Act, which then be amended in 2001 by Law no 20/2001;
2. Ratification of Law no 30/2002 which mandated the establishment of Corruption Eradication Committee (KPK) and the KPK has been fully operated since 2004;
3. Ratification of Law 15/2002 of Anti Money Laundering Act, which mandated the establishment of Indonesian Financial Transaction Reports and Analysis Centre (PPATK) and the institution, has been fully operated since 2005. The act, then, was amended by Law no 8/2010.
4. In 2003 the Ministry of Finance has pioneered bureaucratic reformation which have been followed by other government departments up until now.

The Anti Corruption bill has been ratified in year 1999 and was refined in year 2001. Indonesia has a penal law which is based in the Dutch penal law in 1811. Corruption has been considered as an extra ordinary crime; therefore it requires a special law to tackle it which is different from the Indonesia penal law.

In 2002, the GoI also ratified anti money laundering act, which is separate from the anti corruption act. The act provided the basis to form PPATK and the body has been fully functioning since 2005. Different from KPK, the PPATK does not have the power to bring defendants to courts. Instead, the PPATK functions as an intelligent unit, which provide information to law enforcement agencies such as police, KPK and office of prosecutor. Recently, the GoI refined the act in 2010 which provide a stronger position of PPATK to share any information that they obtained to other law enforcement agencies.

In year 2002, the parliament ratified a bill which became the foundation for the Corruption Eradication Committee. The Committee is an independent body which the main task is to tackle large-scale corruptions (i.e. Rp 1 billion or more). The Committee has been financed by government budget, however they report to the parliament and they do not report to President. The Committee has been fully operational since 2004. Since then, corruptions have been dealt by two groups of law enforcers. For large scale corruptions (Rp 1 billion or more) have been tackled by the Committee, whereas for medium and small scales corruptions (less than Rp 1 billion) have been tackled by Police and Public Prosecutors. It should be noted that the committee may have a more powerful authority than the police in investigating corruptions. Furthermore the committee has been equipped with more sophisticated instrument which enable them to intercept any type of communication between suspects and their counterparts.

### **3. Judicial System in Indonesia**

Indonesia follows continental law system and its' penal code is based on 1881 Dutch penal code. Although, the Dutch has amended its penal code in 1994, the Dutch the penal code 1881 still has been implementing in Indonesia until now. It should be noted that the judicial system in Indonesia does not recognise the use of juries, instead the decisions whether a defendant guilty or not depends on the decisions of board of judges.

Under Indonesia criminal justice system, all criminal cases should be trialled before District Courts. Each District Court is situated in a Kabupaten (district) and there are 497 districts in Indonesia. Judges' decisions in a district court may be appealed either by defendants or prosecutors if they dissatisfied with the decisions. In the event that the defendant does the appeal, which occurs in most corruption cases, then the case is referred to the High Court, which situated in the capital of each province. In the case for which the defendant does not satisfy with judges' decisions in the High Court, a further appeal can be made to the Supreme Court. On the contrary, if the prosecutor does not satisfy with judges' decisions in the District court, the case may be appeald directly to the Supreme Court.

After the Supreme Court sentenced the case, there is still an opportunity for conducting further appeal called a judicial re-examination by the Supreme Court. The judicial re-examination can only be pursued if there is new evidence, which has not been put

before trial previously. It should be noted that the cost of court in Indonesia is economical. The judicial system in Indonesia rules that there are three possible values of the court costs, namely Rp2500 to Rp10,000 (US\$0.29 – 1.16), irrespective of how long the trials have been conducted.

Figure 2: Appeal Process under Indonesia Judicial System

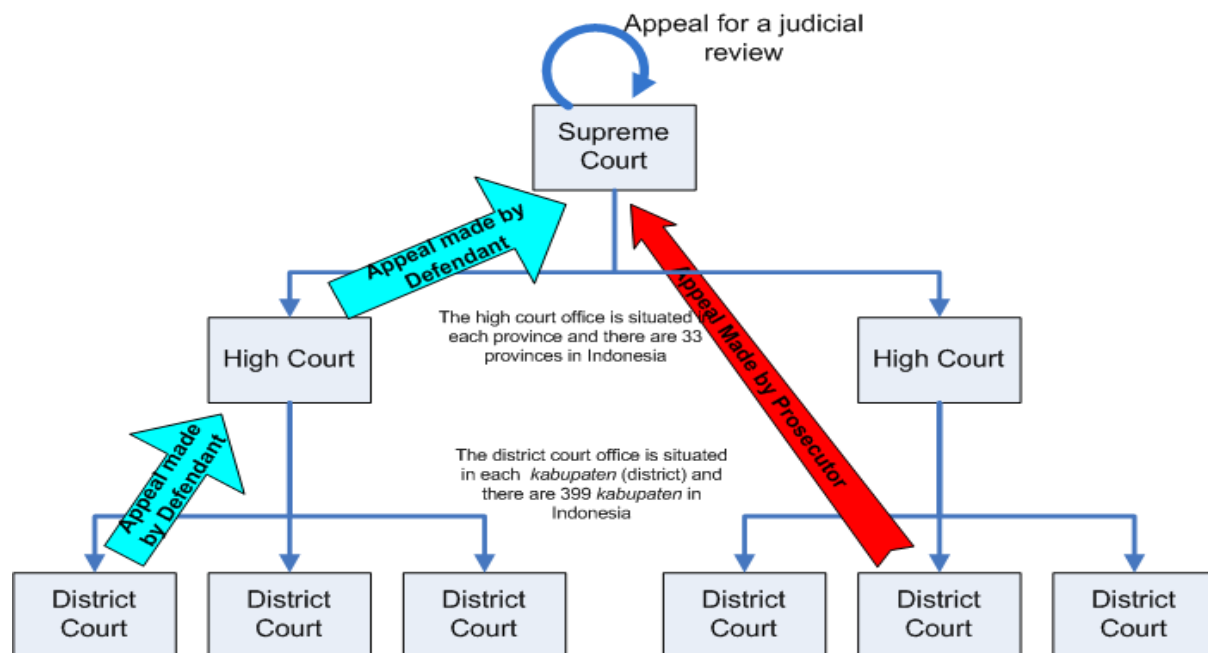


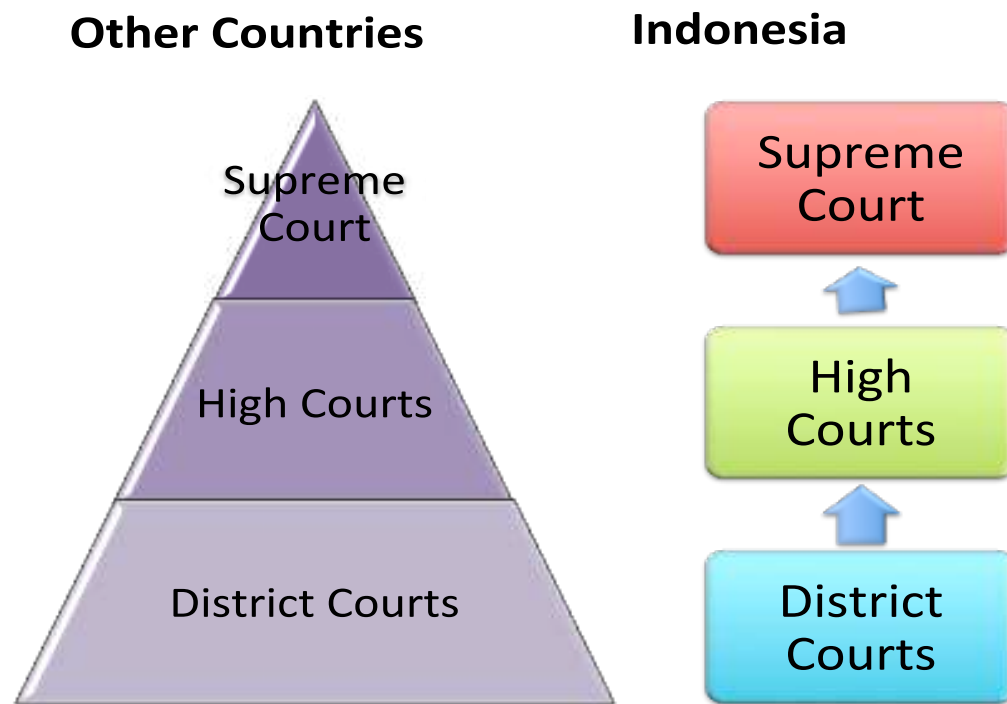
Figure 2 shows the complexity of judicial system in Indonesia, starting from the detection by Police to the judicial review in the Supreme Court. The data used in this study are based on the Supreme Court decisions, both with and without any judicial review. Similar to other types of crime, the underlying number of corruptions is unknown in Indonesia. As the only information obtained was the Supreme Court decisions, any attempt to estimate the detection rate of corruptions would be daunting.

There are strong tendencies that appeal have been made up until the Supreme Court for the corruption cases<sup>3</sup>. In the case for which all corruption cases in the District Court have been appealed up to the Supreme Court, then the unobserved heterogeneity number 1 and 2 can be ignored. Nevertheless, points 3-5 are more serious and unfortunately the information may not be available. In essence the number of cases sentenced by the Supreme Court might be a tip of an iceberg of the underlying corruption cases in Indonesia.

<sup>3</sup> Many thanks to Eddy OS Hiarej who informed me regarding this tendency.



Figure 3: Comparison of Appeal Cases in Indonesia and Other Countries



2

The conviction rate may be estimated from the data set and it should be noted that information in the Supreme Court decisions are very rich. Each the Supreme Court decision contains all information on the previous stage courts decisions. Therefore it is possible to trace back all information regarding the trials, evidence and also decisions in three different courts (i.e. District Courts, High Courts and the Supreme Court). By using a strict assumption that all corruptions cases put before the District Courts were appealed until the Supreme Court, then the conviction rate start from the State Court may be estimated<sup>4</sup>. It should be noted that none of the defendant or offender appeared more than one cases, therefore the data may not be able to support reconviction analysis.

Any attempt to analyse the data set may face unobserved heterogeneity issues. The unobserved heterogeneity arose from the fact that the data obtained record only any cases put before trials up until the Supreme Court. At least there are two potential source of unobserved heterogeneity. Firstly, a case in the District Court may be appealed either to the High Courts (by offenders) or to the Supreme Court (by

<sup>4</sup> An informal discussion with an Indonesia penal law expert, Dr. Eddy OS Hiarej, strengtened the assumption that almost all corruption cases have been appealed.

prosecutors). Secondly, some cases in the Supreme Court have been undergone a judicial review. In order to minimise the unobserved heterogeneity, both variables should be incorporated in the regression models.

Since the information is based on the Supreme Court decision, the analysis suffers from unobserved heterogeneity which were affected by several factors below:

1. The number of cases terminated up until the High Courts
2. The number of cases terminated up until the District Courts
3. The number of cases referred from Police to Prosecutors but not being prosecuted
4. The number of cases reported to and detected by police but not being processed or referred to prosecutors
5. The number of unreported/undetected corruptions

Under Indonesia's penal code, the intensity of punishment should be stated clearly for each type of offences in the Bill. There are various type of punishments in the Bill including imprisonment, parole, fines, subsidiary of fines, compensation order, subsidiary of compensation order, the seizure of evidence, the court costs and other sentences (see Appendix A). In this study we defined financial punishment as the summation of money levied through fines, compensation order and the amount of money seized as evidence. The courts may seized other types of assets which were suspected as the result from corruptions, such as cars, houses, apartments, etc, however these assets were not included in our calculation due to its complexity.

The values of court costs<sup>5</sup> and other sentences were also negligible. The values of the court costs were either Rp2500 (US\$0,27), Rp5000 (US\$ 0,54) or Rp10,000 (US\$ 1.08). These values, suprisingly, applicable for any type of offences. Other sentences were not applicable for most offenders and there were complexity in converting the order to monetary value.

---

<sup>5</sup> The court costs were either Rp2500 (US\$0,25), Rp5000 (US\$ 0,5) or Rp10,000 (US\$ 1). These values applicable for all types of offences.

#### 4. Model

The optimum deterrence effect of sentencing is subjects of two factors, namely the probability of conviction and the intensity of punishment. Irrespective of whether the analysis is based on decision theory or game theory, the deterrence effect of conviction arose from the combination of the both factors (Becker, 1968, Garoupa, 1997, Shavel and Polinsky, 2000, 2007, Pradiptyo, 2007).

The probability of conviction and also the probabilities of receiving a particular type of punishment have been estimated using Logistic regression. Logistic regression is part of limited dependent variable analysis, whereby the values of the dependent variable are binary (e.g. 1 or 0, yes or no, male or female, etc) as a function of a stream of explanatory variables. The result obtained from Logistic regression provides information on the direction and the level of significant of each explanatory variables in affecting the likelihood even in the dependent variable. Thus far, the coefficients in the Logistic regression do not mean anything apart from providing information on the direction and the significant of the variables. The contribution of each explanatory variables to influenced the dependent variable will be obtained if we estimate the marginal effect of the Logistic regressions.

The intensity of each punishment would be estimated by the use of Tobit Logistic (TOBIT) regression. The TOBIT analysis has been used since the value of dependent variable is bounded below, namely the data cannot be negative. As the minimum value of any type of punishment is zero, the parameter estimate would be biased if we use least square method. In order to overcome the problem, the TOBIT regression, which is part of maximum likelihood method, has been used to estimate the impact of various criminogenic factors to the intensity of various punishment.

Attempt will be made to present both Logistic and TOBIT regressions in a table, therefore the information on the probability of conviction and the intensity of sentencing can be observed and analysed simultaneously.

$$\begin{aligned}
D\_SC\_Guilty_i = & a + b_1 Gender_i + b_2 Ln(Age)_i + b_3 Ln(SocCost)_i \\
& + b_4 D\_SOE\_Emp_i + b_5 D\_MP_i + b_6 D\_Private_i + b_7 D\_Jawa_i \\
& + b_8 D\_GreaterJakarta_i + b_9 D\_Grand\_Corr_i + b_{10} D\_Large\_Corr_i \\
& + b_{11} D\_Small\_Corr_i + b_{12} D\_Petty\_Corr_i + b_{13} DC\_Guilty_i + b_{14} D\_HighCourt_i \\
& + b_{15} D\_Judicial\_Rev_i
\end{aligned}$$

Whereby

$D\_SC\_Guilty_i$  = Dummy variable whether the Supreme Court found defendant guilty (1 = Yes, 0 = Otherwise)

Gender = Gender of defendant (1 = Male, 0 = Female)

$Ln(Age)$  = Natural logarithmic function of age of defendant

$Ln(SocCost)_i$  = Natural logarithmic function of Social costs of corruptions estimated by prosecutors in nominal price (limited to explicit costs)

$D\_SOE\_Emp_i$  = Dummy variable whether a defendant worked as State-Owned Enterprise's Employee (1 = Yes, 0 = otherwise)

$D\_MP_i$  = Dummy variable whether the defendant were Member of the Parliament (1 = Yes, 0 = otherwise)

$D\_Private_i$  = Dummy variable whether a defendant worked in private sector (1 = Yes, 0 = Otherwise)

$D\_Jawa$  = Dummy variable whether the corruption was committed in the Island of Jawa (1 = Yes, 0 = otherwise)

$D\_GreaterJakarta$  = Dummy variable whether the corruption was committed in Greater Jakarta (1 = Yes, 0 = otherwise)

$D\_Grand\_Corr$  = Dummy variable whether the defendant committed grand scale of corruptions, i.e. Rp25 Billion or above (1 = Yes, 0 = Otherwise)

$D\_Large\_Corr$  = Dummy variable whether the defendant committed large scale of corruptions, i.e. from Rp 1 Billion to up to but not including Rp25 Billion (1 = Yes, 0 = Otherwise)

$D\_Small\_Corr$  = Dummy variable whether the defendant committed small scale of corruptions, i.e. Rp10 million to up to but not including Rp100 million (1 = Yes, 0 = Otherwise)

$D\_Petty\_Corr$  = Dummy variable whether the defendant committed a petty scale of corruptions, i.e. up to but not including Rp10 million (1 = Yes, 0 = Otherwise)

$DC\_Guilty_i$  = Dummy variable whether District Courts found defendant guilty (1 = Yes, 0 = Otherwise)

$D\_HighCourt$  = Dummy variable whether the case was appealed to the Supreme Court after being sentenced by the HighCourt (1 = Yes, 0 = Otherwise)

$D\_Judicial\_Rev$  = Dummy variable whether after the Supreme Court sentenced the defendant, the decisions were requested to be reviewed.

In the model above, the decisions made by District and High Courts serve as independent variables. The aims of using this variable is to investigate the consistency between the decisions made by the District and the High Courts in comparison to the decisions of the Supreme Court.

The occupations of defendants were classified into four groups, namely Civil Servant, State-Owned Enterprise's Employee, Senator and those who worked in private sector. In this model, civil servant has served as a reference to the other occupations. Furthermore, the corruptions were also classified into five different scales, namely grand, large, medium, small and petty corruptions. In the model above, the medium scale of corruptions has served a reference. The merit of using medium scale as a reference is the ability of the model to observe any difference in the intensity of punishment between large and grand corruptions in one side with petty and small corruptions on the other side. This approach enable us to deduce whether the court tend to treat different class of offenders differently.

In this study, the scale of corruptions have been classified into five groups, namely:

1. Petty corruption (up to but not including Rp10 million or US\$1,075),
2. Small corruption (from Rp10 million to up to but not including Rp 100 million or US\$10,753),
3. Medium corruption (from Rp 100 million to up to but not including Rp 1 billion or US\$107,527),
4. Large corruption (from Rp 1 billion to up to but not including Rp 25 billion or US\$2,688,172) and
5. Grand corruption (Rp 25 billion or above)

As previously discussed, the appeal system to the Supreme Court in Indonesia is quite unique. Not all cases which were appealed to the Supreme Court have got through High Courts. In order to observed possible unobserved heterogeneity among different routes of appeal to the Supreme Court a dummy variable named *D\_HighCourt* was included in the model. Similarly another dummy variable named *D\_Judicial\_Rev* has been employed in order to observed possible variation in the probability of conviction whether or not the judicial review has been conducted to the initial Supreme Court decisions.

Similar to the regression model to estimate the likelihood of conviction by the Supreme Court, a similar approach was used to estimate the likelihood of offenders being sentenced by various types of punishments. The Logistic regression model of the likelihood of sentencing various types of punishments are summaries i the following equation.

$$\begin{aligned}
D\_SC\_Punishment_i^j &= a + b_1 Gender_i + b_2 Ln(Age)_i + b_3 Ln(SocCost)_i \\
&+ b_4 D\_SOE\_Emp_i + b_5 D\_MP_i + b_6 D\_Private_i + b_7 D\_Jawa_i \\
&+ b_8 D\_GreaterJakata_i + b_9 D\_Grand\_Corr_i + b_{10} D\_Large\_Corr_i \\
&+ b_{11} D\_Small\_Corr_i + b_{12} D\_Puny\_Corr_i + b_{13} DC\_Guilty_i + b_{14} D\_HighCourt_i \\
&+ b_{15} D\_Judicial\_Rev_i
\end{aligned}$$

$D\_SC\_Punishment_i^j$  = Dummy variable whether the Supreme Court sentenced defendant i with punishment j

$DC\_Punishment_i^j$  = Dummy variable whether the Supreme Court sentenced defendant i with punishment j

The regression model in this analysis is similar to the regression model in the previous analysis, however, the difference lies in the sample of offenders who can be included for these analyses. The types of punishment are relevant only to those who were found guilty by the Supreme Court. Given that the subgroup of defendants were found guilty, the further question is which factors affect the likelihood of offenders were sentenced with a certain type of punishment as oppose to other possible punishments.

In order to estimate various factor which attributable to the intensity of each type of punishments sentenced to offenders, Tobin's Lnit (TOBIT) analysis has been conducted. The reason of using TOBIT regression is due to the fact that the intensity of punishment is always be positive or it cannot be lower than zero.

$$\begin{aligned}
SC\_Punishment_i^j &= a + b_1 Gender_i + b_2 Ln(Age)_i + b_3 Ln(SocCost)_i \\
&+ b_4 D\_SOE\_Emp_i + b_5 D\_MP_i + b_6 D\_Private_i + b_7 D\_Jawa_i \\
&+ b_8 D\_GreaterJakata_i + b_9 D\_Grand\_Corr_i + b_{10} D\_Large\_Corr_i \\
&+ b_{11} D\_Small\_Corr_i + b_{12} D\_Puny\_Corr_i + b_{13} DC\_Guilty_i + b_{14} D\_HighCourt_i \\
&+ b_{15} D\_Judicial\_Rev_i
\end{aligned}$$

where:

$SC\_Punishment$  = the intensity of punishment j sentenced to defendant i.

## 5. Results

Information from the dataset shows that the majority of defendants were male (93.1%) and only small fraction were female (6.9%). None of defendants who committed Grand scale alleged corruptions was female, however there were 45 male defendants (5,5%

)who were prosecuted for Grand scale corruptions . The number of defendants who were prosecuted for large corruptions were 201, of which 190 defendants were male (94.5%).

Table 2: Distribution of Defendants According to the Scale of Alleged Corruptions

		Scale of Corruptions					Total
		Petty	Small	Medium	Large	Grand	
Gender	Male	36	183	313	191	45	768
	Female	2	16	29	10	0	57
	<b>Total</b>	<b>38</b>	<b>199</b>	<b>342</b>	<b>201</b>	<b>45</b>	<b>825</b>
Location	Jawa	11	73	118	95	33	330
	Greater Jakarta	0	5	18	53	27	103
	Outside Jawa	27	124	224	105	12	492
	<b>Total</b>	<b>38</b>	<b>197</b>	<b>342</b>	<b>200</b>	<b>45</b>	<b>822</b>
Occupation	Civil Servant	26	137	126	61	8	358
	SOE Employees	1	9	33	25	12	80
	MP	1	25	115	76	4	221
	Private Sector	10	26	66	38	20	160
	<b>Total</b>	<b>38</b>	<b>197</b>	<b>340</b>	<b>200</b>	<b>44</b>	<b>819</b>

Source: Indonesia Supreme Court, calculated.

Table 2 shows that more than 50% of defendants committed their alleged corruptions in outside Jawa. Of 330 alleged corruption cases in Jawa 31,2% have been committed in Greater Jakarta (GreaterJakarta<sup>6</sup>). There is a tendency that the grand-scale of corruptions were committed in Jawa, especially in Jakarta. This may not be surprising as Jakarta is the capital city and the centre of administration in Indonesia. About 90% of money has been circulated in Jawa and more than 47% of money has been circulated in Jakarta.

Civil servants tend to dominate petty and small scales corruptions as opposed to individuals from the other occupations. On the other hand, the defendants who worked in private sector dominate the alleged grand scale of corruptions. Indeed, the coverage of the anti corruption act in Indonesia is limited to civil servants, member of parliaments and also state-owned enterprise employees, however, individuals who work in private sector may become defendants as they may involve in corruption of government procurements.

<sup>6</sup> This is stand for Jakarta, Bogor, Depok, Tangerang and Bekasi which comprises of 9 municipalities, which are Central Jakarta, South Jakarta, North Jakarta, West Jakarta, East Jakarta, Bogor, Depok, Tangerang and Bekasi.

Corruptions create misallocation of resources, therefore any attempt to estimate the cost of corruptions should be taken into consideration both explicit and implicit costs of corruptions. Unfortunately this is not the case in Indonesia as prosecutors, who mostly never received training in economics, have calculated the cost of corruptions limited to the explicit cost only. The consequences are that the costs of corruptions have been underestimated and there might be many cases of error types I and II in convicting defendants.

Table 3 shows that comparison between the total explicit costs, the total financial punishment prosecuted and total financial punishment sentenced by the Supreme Courts across various scales of corruptions. Offenders who commit petty scale of corruptions tend to be sentenced most severely than their counterparts. Although the total costs of corruptions they inflicted to society was Rp 93.4 million, they were prosecuted and sentenced for Rp1.7 billion (1800.3%) and Rp 1.2 billion (1234.8%), respectively. A similar anomaly occurs to offenders with small scale corruptions. The total financial punishment sentenced to them was more than double than that of prosecuted. The B:A ratio to this type of offenders was 186.6%, however the C:A ratio was 375.8%. Both types of offenders tend to be unfortunate as they received financial punishment more than the cost they inflicted.

The features of financial punishment sentenced for both petty and small scale corruptors may not be found on the other classes of corruptors. Indeed the medium scale corruptors were prosecuted for financial punishment for 120.9% above the cost of corruptions they inflicted. Nevertheless, the Supreme Court sentenced them with financial punishment worths 86.3% of their total cost of corruptions. The cost of corruptions attributable by this group was Rp84.8 billion, however they were sentenced with financial punishment worths Rp73.2 billion.



Table 3: Comparison between Cost of Corruption and Financial Punishment Sentenced

Scale of Corruptions	Offenders	Current Price			B:A (%)	C:A (%)
		Explicit Cost of Corruptions (A)	Total Financial Punishment Prosecuted (B)	Total Financial Punishment Sentenced by the Supreme Court (C)		
Petty	22	Rp93,4 Million (\$10,043.01)	Rp1,7 Billion (\$182,795.70)	Rp1,2 Billion (\$129,032.26)	1820.13%	1284.80%
Small	128	Rp5,1 Billion (\$548,387.10)	Rp9,6 Billion (\$1.03 million)	Rp19,3 Billion (\$2.08 million)	188.24%	201.04%
Medium	240	Rp84,8 Billion (\$9.12 million)	Rp102,5 Billion (\$11.02 million)	Rp73,2 Billion (\$7.87 million)	120.87%	86.32%
Large	122	Rp621,9 Billion (\$66.87 million)	Rp404,7 Billion (\$43.52 million)	Rp299,1 Billion (\$32.16 million)	65.07%	48.09%
Grand	30	Rp58,09 Trillion (\$6.24 billion)	Rp23,04 Trillion (\$2.48 billion)	Rp3,95 Trillion (\$424.73 million)	39.66%	6.80%
Total	542	Rp58,81 Trillion (\$6.32 billion)	Rp23,55 Trillion (\$2.53 billion)	Rp4,34 Trillion (\$466.67 million)	40.04%	7.38%
Scale of Corruption	Offenders	Constant Price 2009			B:A (%)	C:A (%)
Petty	22	Rp108,4 Million (\$11,655.91)	Rp1,8 Billion (\$193,548.39)	Rp1,2 Billion (\$129,032.26)	1660.52%	1107.01%
Small	128	Rp6,3 Billion (\$677,419.36)	Rp11,6 Billion (\$1.25 million)	Rp25,4 Billion (\$2.73 million)	184.13%	403.17%
Medium	240	Rp101,3 Billion (\$10.89 million)	Rp120,1 Billion (\$12.91 million)	Rp90,0 Billion (\$9.68 million)	118.56%	88.85%
Large	122	Rp735,5 Billion (\$79.09 million)	Rp482,5 Billion (\$51.88 million)	Rp363,1 Billion (\$39.04 million)	65.60%	49.37%
Grand	30	Rp72,22 Trillion (\$7.77 billion)	Rp31,79 Trillion (\$3.42 billion)	Rp4,87 Trillion (\$523.66 million)	44.02%	6.74%
Total	542	Rp73,07 Trillion (\$7.86 billion)	Rp32,41 Trillion (\$3.48 billion)	Rp5,35 Trillion (\$575.27 million)	44.35%	7.32%

Source: Indonesia Supreme Court, estimated

Offenders who committed large and grand scales of corruptions tend to be more 'fortunate' than their counterparts who committed petty to medium scales of corruptions. The offenders who committed large and grand scales of corruptions were prosecuted with financial punishment about 65.07% and 39.66%, respectively, of their cost they have been inflicted to society. The ratio between the total financial punishment sentenced and the cost of corruptions decreased to 49.37% and 6.74%, respectively, for large and grand scale of corruptors, when they were sentenced by the Supreme Court. Imagine, 30 grand scale corruptors inflicted the cost of corruptions to

society worth Rp58.09 trillion, however the Supreme Court punished them with financial punishment worth Rp3.95 trillion (6.8%). If the estimation has been done in real price, then using price in 2009 as the constant price, then all offenders inflicted the cost of corruptions Rp73.07 trillion. Surprisingly, they were sentenced by the Supreme Court to pay the total financial punishment worth only Rp4.87 trillion (6.7%).

Table 4: The Comparison of Average Imprisonment Prosecuted and Sentenced

Types of Corruptions	Number of Offenders	Average Period of Imprisonment Prosecuted (month) [A]	Number of Offenders	Average Period of Imprisonment Sentenced (mmmonth) [B]	B:A (%)
Petty	21	22.3	22	13.7	61.43%
Small	128	21.6	127	15.2	70.37%
Medium	237	53.2	240	32.8	61.65%
Large	122	79.0	122	43.5	55.06%
Grand	30	115.7	30	58.0	50.13%
Total	538	53.8	541	31.7	58.92%

Source: Indonesia Supreme Court, estimated

Further exploration on the sentencing for imprisonment found a similar pattern. Table 4 shows that, again, petty to medium scales of corruptors tend to be sentenced more severely in comparison to the other counterparts. The ratio of the average imprisonment sentenced to the average of imprisonment prosecuted by the Supreme Court were 55.0% and 50.1%, respectively, for both large and grand scales corruptors. In contrast, the same ratios were 61.4%, 70.3% and 61.6%, respectively for petty, small and medium scales of corruptors.

It should be noted that the length of imprisonment above was based on the Supreme Court's decision and it did not reflect the actual length of imprisonment. The actual length of imprisonment tend to be shorter as every year, especially on the independence day, the government grants remission to offenders including corruptors. In general the actual length of imprisonment was about 60% of the Supreme Court's sentencing.

The findings above give rise various unanswered questions which should be investigated further in the near future. Why do prosecutors and judges tend to treat offenders differently? Why do both petty and small scale corruptors tend to be treated harshly than the other counterparts? Why do prosecutors and judges tend to be much

more lenienced toward large and Grand scales of corruptors? What are the consequences which may arise due to the unfair sentencing as it was found above?

Table 5 provides information on various factors attributable to the probability of conviction in corruption cases in Indonesia. The result shows that the Supreme Court is highly likely to support District Courts' decisions. A defendant who was found guilty by the District Courts is highly likely to be found guilty by the Supreme Court. Obviously any attempt to appeal is costly, however defendants tend to pursue to appeal when District Court decided that they were guilty.

Table 5: Logistic Regression of Conviction by the Supreme Court

Logistic Regression Dependent Variable: SC_GUILTY Included observations: 811			
Variable	Coefficient	Std. Error	Prob.
C	1.852	2.796	0.508
Gender	0.077	0.370	0.835
LN(Age)	-0.810	0.506	0.110
LN(SocCost)	0.010	0.100	0.922
<b>D_Jawa*</b>	0.389	0.218	0.074
D_GreaterJakarta	-0.076	0.383	0.843
<b>D_SOE Empl***</b>	1.611	0.421	0.000
<b>D_MP*</b>	-0.393	0.237	0.096
D_Private	0.334	0.264	0.206
D_Grand	-0.258	0.795	0.745
D_Large	-0.302	0.332	0.362
D_Small	0.032	0.322	0.921
D_Petty	-0.347	0.621	0.576
<b>D_Guilty_DC***</b>	3.236	1.136	0.004
D_Appeal_HC	-0.622	1.137	0.584
<b>D_JudicialReview***</b>	1.627	0.406	0.000

Source: Indonesia Supreme Court, estimated

Note:

\*) significant at  $\alpha = 10\%$ ;

\*\*) significant at  $\alpha = 5\%$ ;

\*\*\*) significant at  $\alpha = 1\%$ .

Defendants who worked as State-Owned Enterprise's Employees tend to have a higher probability to be found guilty as opposed to those who worked in private sectors. Similarly, MPs who were prosecuted in corruptions tend to have a higher probability to be found guilty in comparison to those who worked in private sector. It should be noted, however, that this finding is significant only at  $\alpha = 10\%$ .

The result suggests that the probability of conviction in corruption cases do not depends on geographical distribution. Whether the case was committed in the island of Jawa or outside Jawa, or whether the case was committed in Greater Jakarta or outside Greater Jakarta, the result show that the probability of conviction is not statistically significant. The probability of conviction does not vary across various scale of corruptions, meaning that the probability of conviction faced by a petty scale corruptor cannot be differentiated with the probability of conviction faced by a grand scale corruptor.

The result suggests also that requesting a judicial review may be counterproductive to the defendants. Defendants who requested the Supreme Court to conduct a judicial review over the Supreme Court initial decision is more likely to be convicted and this result is significant at  $\alpha = 1\%$ .

According to Becker (1968) given the probability of conviction, a deterrence effect of punishment, then, is solely depends on the intensity of punishment itself. Ideally, those who create a high social cost to society should be sentenced with higher intensity. This imply that offenders who committed petty corruptions should be punished less severely in comparison to those who committed more serious corruptions.

Under the Indonesia criminal court code, there are several types of punishments including: a) fines, b) subsidiary punishment to fines (imprisonment); c) compensation order, d) subsidiary punishment to compensation order (imprisonment), e) the seizure of evidence, f) imprisonment, g) parole and h) other punishment. According to anti corruption act 1999, the maximum value of fines is Rp1 billion. The compensation value should be matched with the value of the social costs inflicted by the offenders.

Further assessment is conducted to explore factors which closely associated with particular types of punishments (e.g. fines, compensation order, etc.). For this purpose, restriction has been implemented to select only defendants who were sentenced guilty

by the Supreme Court. It might be interesting to conduct a similar exercise to the decisions of judges in High Courts, however, some cases referred to the Supreme Court may not necessarily be referred to the High Court, consequently the Supreme Court covers a broader cases that the High Courts.

### Fines and Subsidiary Punishment to Fines

The Logistic regression in Table 6 shows that defendants who previously worked as MPs tend to receive fines higher than their counterparts who worked in private sector. Similarly offenders who committed corruptions in Jawa were more likely to receive fines than their counterparts in outside the island of Jawa. It should be noted however that both results are significant at  $\alpha=10\%$ .

Table 6: The Probability and the Intensity of Fines

Variable	Logistic Regression		Tobit Regression		Logistic Regression		Tobit Regression	
	Dependent Variable: SC_FINES_YN		Dependent Variable: SC_FINES_NOM		Dependent Variable: SC_FINES_SUBS_YN		Dependent Variable: SC_FINES_SUBSIDAIR_R	
	Included observations: 516		Included observations: 516		Included observations: 515		Included observations: 511	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
C	-0.101	5.023	3.55E+08	2.26E+08	0.468	5.047	1.934	3.051
Gender	0.202	0.634	26535515	31535908	-0.029	0.652	0.338	0.419
LN(Age)	0.542	0.786	-2.50E+07	36424518	0.556	0.79	0.121	0.493
LN(SocCost)	-0.167	0.194	-1.00E+07	8541660	-0.185	0.195	-0.141	0.118
D_Jawa	0.594*	0.344	16457756	15507242	0.58*	0.345	0.12	0.211
D_GreaterJakarta	-0.91	0.704	39386153	26133560	-0.955	0.707	-1.036***	0.369
D_SOE Empl	1.301	0.759	5841997	23803386	1.212	0.756	0.433	0.324
D_MP	-0.557	0.385	11852625	18537363	-0.67*	0.391	-0.085	0.255
D_Private	0.083	0.401	36934698**	16877383	0.137	0.412	0.33	0.23
D_Grand	42.522	4.37E+08	2.62E+08***	59915277	42.502	4.38E+08	3.823***	0.826
D_Large	1.462**	0.703	7.56E+07***	26312999	1.44**	0.706	0.495	0.363
D_Small	-0.903*	0.546	-7.20E+07***	26036800	-0.992*	0.553	-1.298***	0.353
D_Petty	-0.536	1.203	-7.80E+07	53990614	-0.985	1.19	-2.008***	0.738
D_Fines_DC	4.201***	0.516	3825753***	547767.9	4.128***	0.488	0.628***	0.039
D_Appeal_HC	-0.965	0.592	-96000000**	40548845	-0.83	0.564	0.866**	0.348
D_Judicial_Review	-0.072	0.454	22574170	19904167	0.077	0.461	0.247	0.275

Source: Indonesia Supreme Court, estimated

Offenders who committed grand, medium and petty scales of corruptions have similar likelihood to be sentenced with fines. Offenders who committed large scale corruptions, however, were more likely to be sentenced with fines relative to those who committed medium scale corruptions ( $\alpha=5\%$ ). Surprisingly, offenders who committed small scale corruptions tend to be less likely to receive fines, although the result was significant at  $\alpha=10\%$ .

Result from Tobit regression shows that the intensity of fines did not depend on the social costs inflicted by the offenders. It should be noted that the value of fines is bounded above, namely that the maximum value of fines cannot exceed Rp 1 billion. In term of occupations, offenders who previously worked as civil servants and state-owned enterprise employees tend to be fined higher than their counterparts who worked in private sector ( $\alpha=1\%$ ).

Offenders who committed large and grand corruptions tend to receive higher fines than medium scale corruptors ( $\alpha=1\%$ ). On the other hand, small scale corruptors received less fines than medium scale corruptors ( $\alpha=1\%$ ). The result did not suggest, however, that petty scale corruptors received lower value of fines than the medium scale corruptors. This implies that the petty corruptors tend to be treated harsher than the rest of the group. Although the social costs of corruptions that have been inflicted by petty corruptors were much lower than those of medium corruptors, the intensity of fines received by both groups was not significantly different.

In order to make fines more credible, many authorities have to adopt a strategy of transforming the values of fines in relation to a term of imprisonment period, as a result, a failure to pay the fines will be compensated by serving time in prison. In the U.S., for instance, 25% of convicts sentenced by state courts in the year 2000 received fines as additional penalties (U.S. DOJ, 2003). In Israel during 1997-2000, fines were used in combination with other penalties in 34.7% of the cases (Einat, 2004). The use of complementary sanctions shows that fines in themselves are not sufficient as a credible sentence. Furthermore, the costs of policing and enforcing fines may not necessarily be lower than other types of sentences, and the higher the fine, the higher the costs of enforcing and policing it. Any attempt to increase the value of fines may increase the

number of defaults. In turn, this gives rise to an increase in the number of inmates in prison. As a result, fines may not be a good solution when tackling overcrowded prisons.

Table 6 shows that offenders who had occupation as members of parliament were less likely to be sentenced with subsidiary of fines ( $\alpha=5\%$ ). Offenders who committed corruptions in Jawa tend to receive subsidiary of fines as opposed to their counterparts in outside Jawa ( $\alpha=10\%$ ). Large scale corruptors were more likely to receive subsidiary to fines, whereas small corruptors were less likely to receive subsidiary to fines, in comparison to medium corruptors, although the results were weakly significant ( $\alpha=10\%$ ).

A counter intuitive result were obtained as the probability to receive subsidiary of fines cannot be differentiated among grand, medium and petty corruptors. Obviously this result is puzzling and raised a further question on how the judges made their decisions.

Result from Tobit regression suggests that offenders occupation were not attributable to the intensity of subsidiary to fines. Offenders in Greater Jakarta tend to receive less severe subsidiary of fines than those who live in outside Greater Jakarta. Large and Grand corruptors tend to receive more severe punishment than the medium corruptors. On the other hands, small and petty corruptors tend to receive less severe punishment than the medium corruptors.

### **Compensation Order and Subsidiary to Compensation**

Further assessment has been conducted for the Supreme Court judges to sentence defendants to pay compensation for offences they committed and the subsidiary punishments of compensation. It is stated clearly in the Anti Corruption Act that the value of compensation order should matched with the social cost of crime. Ideally all corruptors should be sentenced with compensation order as the social costs they inflicted to society tend to be huge so its create burden to the economy.

Table 7 shows that corruptors who previously worked in private sector were more likely to received compensation order as opposed to the other occupations ( $\alpha=5\%$ ). Corruptors in Greater Jakarta received a lower probability of compenstation order, even though their average value of corruptions tend to be higher than those from other parts in Indonesia.

Table 7: The Probability and the Intensity of Compensation Order

	Compensation Order				Subsidiary of Compensation Order			
	Logistic Regression		Tobit Regression		Logistic Regression		Tobit Regression	
	Included observations: 517		Included observations: 514		Included observations: 517		Included observations: 517	
Variable	Coeff	Std. Error	Coeff	Std. Error	Coeff	Std. Error	Coeff	Std. Error
C	-7.391	4.642	-6.11E+09	8.04E+09	-0.988	3.249	-38867.2	36201.6
Gender	0.454	0.57	-2.54E+08	1.04E+09	0.588	0.429	-951.7	4902.9
LN(Age)	0.449	0.731	1.93E+09	1.24E+09	-0.035	0.512	278.6	5747
LN(Social Cost)	0.185	0.179	-2.90E+07	3.18E+08	-0.069	0.128	1964.1	1412
D_Jawa	0.723**	0.317	-5.01E+08	5.31E+08	0.224	0.222	-611	2487.4
D_GreaterJakarta	-1.255**	0.511	1.38E+09	9.23E+08	-0.444	0.373	2063.3	4173.3
D_SOE Empl	0.575	0.502	-8.70E+07	8.31E+08	0.372	0.334	-2933.2	3855.3
D_MP	0.206	0.358	4.21E+08	6.36E+08	1.231***	0.269	-421.1	3010
D_Private	0.726**	0.365	-4.46E+08	5.84E+08	0.322	0.245	2059.4	2747.7
D_Grand	-2.664**	1.207	-1.12E+10***	2.63E+09	-1.329	0.955	5016.4	10019.9
D_Large	-0.836	0.559	-6.91E+08	9.82E+08	0.157	0.393	-5441.7	4437.6
D_Small	0.733	0.523	5301955	9.03E+08	-0.54	0.371	4237.4	4114.7
D_Petty	0.674	1.089	2.33E+08	1.91E+09	-0.943	0.772	8515.9	8719.1
D_Compensation_DC	4.134**	0.37	1.004***	0.004351	-0.003	0.009	25.9	84.4
D_Appeal_HC	-0.975**	0.458	-2.88E+08	8.06E+08	1.624***	0.369	-113	3882.2
D_Judicial_Review	0.326	0.431	-1.48E+08**	7.01E+08	0.365	0.303	4403.6	3211.2

Source: Indonesia Supreme Court, estimated

The likelihood of receiving compensation order cannot be distinguished among petty, small, medium and large corruptors. Controversially, however, the result suggests that grand corruptors were less likely to receive compensation order in comparison with the other group of corruptors. Obviously this result was attributable to the huge gap between the explicit social cost of corruption and the financial punishment imposed.

Although the likelihood of receiving compensation order was lower for grand corruptors, however, the Tobit regression result show that they tend to receive significantly higher intensity of compensation order ( $\alpha=1\%$ ). Unfortunately, however, that the value of compensation order for petty, small, medium and large corruptors cannot be distinguished between one from another. Either the value of compensation order to those groups were too high or too low, obviously the disposal did not give any sense of justice. This occur as both the probability of conviction and the intensity of



punishment were decided without any consideration to the value of the social costs inflicted.

Similar to fines, the credibility of compensation order can be increased by complemented with imprisonment if offenders failed to pay the compensation order. Table 7 shows that offenders who were ex-member of parliaments were more likely to receive subsidiary of compensation order as oppose to the other offender groups. The Tobit regression result shows that none of the independent variables in the model affect the intensity of subsidiary of compensation order. This suggests that the amount of subsidiary of compensation order has been determined by the judges without taken into consideration all the factors above.

## 6. Conclusion

This study shows that the judicial system in Indonesia tend to treat corruptors differently. The discrimination has occurred to petty and small scale corruptors, who tend to be sentenced much heavily than the gravity of corruptions that they committed. In contrast, large and grand scale corruptors tend to be treated much more leniently in comparison of the gravity of corruptions that they committed.

There is a strong evidence to suggest that the courts suffer a lack of consistency in determining the probability and the intensity of punishments across different groups of offenders. There is also a strong evidence to suggest that the probability and the intensity of punishments tend to be determined idiosyncratically. Both prosecutors and judges, did not take into consideration the gravity of the corruptions committed to sentence offenders. This pattern of sentencing has weakened the deterrence effect of the punishments and ironically provides a signal to potential corruptors that somehow corruption does pay in Indonesia.

## References

- Becker, G.S. 1968. "Crime and Punishment: An Economic Approach," 70 *Journal of Political Economy* 1-13.
- Bowles, R.. 2000. "Corruption,". in B. Boudewijn and G. De Greest, eds. *Encyclopedia of Law and Economics*, Vol. 5, *The Economics of Crime and Litigation* 460-491. Edward Elgar.
- Bowles, R and N. Garoupa. 1997. "Casual Police Corruption and the Economics of Crime." 17 *International Review of Law and Economics* 75-87.

- Bowles, R., F. Gordon, R. Pradiptyo, C. McDougall, A. Perry, and R. Swaray. 2004. "Costs and Benefits of Sentencing Options -- Report to the Home Office," *unpublished manuscript*, Centre for Criminal Justice Economics and Psychology, University of York.
- Bowles, R. and R. Pradiptyo. 2004. "An Economic Approach to Offending, Sentencing and Criminal Justice Interventions -- Report to Esmee Fairbairn Foundation," presented to *Esmee Fairbairn Foundation*, London.
- Bowles R and **Pradiptyo, R.** (2005), A Study on Young Adults and the Criminal Justice System, *Barrow Cadbury Trust.*, London, UK. URL: <http://www.bctrust.org.uk/snapshots/economics-young-adult-crime/economics-young-adult-crime.pdf>
- Brace, N, R Kemp and R Snelgar (2003) *SPSS for Psychologists; A Guide to Data Analysis using SPSS for Windows*, 2nd eds, Palgrave MacMillan, New York.
- Brand, S., and R. Price. 2000. "The Economic and Social Costs of Crime," *Home Office Research Series Paper 217*. London: Home Office.
- Chapman, B., A. Mackie and J. Raine. 2002. "Fine Enforcement in Magistrates' Courts," Home Office Development and Practice Report 1, London, Home Office.
- Department for Constitutional Affairs (DCA). 2004. *Magistrates' Courts Business Returns--Annual Report 2002-2003*. London: Department for Constitutional Affairs.
- Dubourg, R., J. Hamed, and J. Thorns. 2005. "The Economic and Social Costs of Crime Against Individuals and Households 2003/04," *Home Office Online Report 30/05*. London: Home Office.
- Einat, T. 2004. "Criminal Fine Enforcement in Israel; Administration, Policy, Evaluation and Recommendations," 6 *Punishment & Society* 175-194.
- Fung, P. 2004. "On the Effective Use of Stigma as a Crime-Deterrent," 48 *European Economic Review* 715-728.
- Garoupa, N. 1997. "The Theory of Optimal Law Enforcement." 11 *Journal of Economic Surveys* 267-295.
- Garoupa, N., and D. Klerman. 2002. "Optimal Law Enforcement with a Rent-Seeking Government," 4 *American Law & Economics Review* 116-140.
- Garoupa, N., and D. Klerman. 2004. "Corruption and the Optimal Use of Nonmonetary Sanctions," 24 *International Review of Law & Economics* 219-225.
- Gneezy, U., and A. Rustichini. 2004. "Incentives, Punishment and Behavior", in Camerer, Loewenstein and Rabin, eds. *Advances in Behavioral Economics*. Princeton Univ. Press.
- Levitt, S.D., and T.J. Miles. 2007. "Empirical Study of Criminal Punishment," in A.M. Polinsky and S. Shavell, eds. *Handbook of Law and Economics 1*, North Holland.
- Maddala, G.S. (2001) *Introduction to Econometrics*; 3rd eds, John Wiley and Son, LTD, Chichester.
- De Mesquita, B., and L.E. Cohen. 1995. "Self Interest, Equity, and Crime Control: A Game-Theoretic Analysis of Criminal Decision Making," 33 *Criminology* 483-518.
- Passell, P., and J.B. Taylor. 1977. "The Deterrence Effect of Capital Punishment: Another View," 67 *American Economic Review* 445-451.
- Polinsky, A.M., and S. Shavell. 2000. "Economic Theory of Public Enforcement of Law," 38 *Journal of Economic Literature* 45-76.
- Polinsky, A.M., and S. Shavell. 2001. "Corruption and Optimal Law Enforcement." 81 *Journal of Public Economics* 1-24.

- Polinsky, A.M., and S. Shavell. 2007 forthcoming. "The Theory of Public Enforcement of Law," in A.M. Polinsky and S. Shavell, eds. *Handbook of Law and Economics 1*, North Holland.
- Rasmusen, E. 1996. "Stigma and Self-Fulfilling Expectations of Criminality," 39 *Journal of Law and Economics* 519-544.
- U.S. Department of Justice (DOJ). 2003. "Felony Defendants in Large Urban Counties 2000." Washington DC: U.S. Department of Justice.

## Appendix A: Summary of Anti Corruption Act 20/2001

Section / Part	Offence Types	Minimum			Maximum			Top
		Prison (year)	and / or	Fines (million)	Prison (year)	and / or	Fines (million)	
Sec. 5 Part 1a,b	Offering a bribe to Civil Servants or Bureaucrats	1	Or	50	5	Or	250	
Sec. 5 Part 2	Civil Servants or Bureaucrats receive bribery as mentioned in parts 1A & 1B above.	1	Or	50	5	Or	250	
Sec. 6 Part 1a, b	Offering a bribe to any court staff and expert witnesses to alter their decision in the favour of the individual who offer a bribe.	3	And	150	15	And	750	
Sec .6 part 2	Any court staff and expert witnesses who received a bribe as mentioned in part 1a and 1b above.	3	And	150	15	And	750	
Sec . 7 Part 1a	Embezzlement of procurement of government goods and services provision	2	And or	100	7	And or	350	
Sec . 8	Fraud and Forgery committed by Bureaucrats for their own benefits.	3	And	150	15	And	750	
Sec . 9	Fraud and forgery committed by Bureaucrats in attempts to destroy and damage administrative evidence which may be used for prosecution.	1	And	50	5	And	250	
Sec. 10a	Damaging and loosing any kind of administrative evidence which can be used for prosecution.	2	And	100	7	And	350	
Sec. 11	Civil Servants or Bureaucrats received present or promise due to their position in the government, and the present may hinder them to work professionally.	1	And or	50	5	and or	250	
Sec. 12a,b,c ,d	Receiving gratification or discount for procurement by Bureaucrats, court staff, expert witnesses who is believed is going to affect to their decisions.	4	And	200	20	And	1000	Live
Sec. 12e,f,g, h, i	Extortion committed by bureaucrats, court staff.	4	And	200	20	And	1000	Live
Sec 12B Part 1& 2	Any gratification which is suspected as a form of bribery to bureaucrats.	4	and	200	20	And	1000	Live

