Growth of Felonies after the 1997 Financial Crisis in Korea

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Abstract

Ever since the financial crisis in 1997, South Korea has witnessed a sharp increase in felonies (heinous crimes: homicides, robbery, rape, and arson), crimes which directly threatens human body or life. In this paper, we assume that the structural socioeconomic transformation led by the financial crisis increased crimes in this society, and assess the effectiveness of criminal deterrence policy by the Korean government. Our analysis on criminal deterrence policies-policing, sentencing, and corrections – proves that the efforts of Korean government were insufficient to ameliorate the rising trends in crime. For the past ten years, the investment of human resource and budget in the police has been virtually stagnant, as well as in prosecutors' investigation activities, causing a huge decline in arrest rates and prosecution rates. Comparing the pre- and the post-financial crisis period, the average length of prison sentence by the courts has declined. We also found that the increase in the number of repeat offenders convicted of more than a third offense pushed felonies upward, although the government hired more officers and allocated larger budget into prison and probation. In order to curve down the rising crime and prevent possible aggravation of social safety by the current global economic turmoil, it is crucial to invest more resources into criminal deterrence and improve policy effectiveness.

1. Introduction

Ever since the Asian financial crisis in 1997, the Korean economy has undergone serious economic shifts, such as declining economic growth rate, a rising unemployment rate, widening income disparity, and growing poverty. Due to extensive socio-cultural changes brought about by these structural transformations of the Korean economy, South Korea has witnessed a sharp increase in felonies (heinous crimes), crimes which directly threatens human body or life.[1]

Considering it is a nation's basic function to ensure people's safety, it is crucial that the government identifies the causes of rising crime and formulates effective policies to combat it. Furthermore, the countermeasures employed against crimes are vital for building a foundation of long-term economic growth. An increase in crime not only harms individual victims, but also creates an enormous economic loss to society as a whole, because the deterioration of community security impedes free economic activity. In other words, achieving reductions in crime is necessary for both economic growth and social safety.

There have been a number of past studies on crime analysis or its policies, which have emphasized the rising trends of crimes since the economic turmoil in 1997.[2] However, these studies have mainly focused on the causes of rising crime (e.g. that the worsening economic condition accelerated certain push factors of crime, or that society as a whole had become more violent). Yet, these studies neglected how the government responded to ameliorate the situation.

In this paper, we assess the effectiveness of criminal deterrence policy by the Korean government, while assuming that the structural socioeconomic transformation induced more crimes in the society swept by the 1997 Asian financial crisis. When a country experiences deteriorating macroeconomic performance, its government either reduces resources for deterring crime or changes policy priorities for distributing a given amount of resource. This eventually leads to insufficient resource investment in criminal deterrence. Moreover, when ministries and offices in charge of criminal deterrence fail to succeed in policy coordination regarding changes in policy conditions, it is likely that the effectiveness of criminal policy will be weakened.

If the policy measures of the Korean government were less appropriate to deter crime, then the rise in crime, after the financial crisis, stems more from the failure of government policy rather than socioeconomic conditions vulnerable to crimes. That would suggest that rising crime could have been less severe than current levels if appropriate government policies had been implemented. Hence, this study attempts to clarify the issue, whether crime skyrocketed as the result of policy failures, rather than an inevitable outcome of socio-economic

[1] The definition of heinous crime or felony (homicide, robbery, arson, and rape) is described in Section 3.
[2] Park (2008), Kim et al. (2007), Chang (2008), Choi (2002)

structural changes. We compare criminal policies in the pre- and post- Asian financial crisis period, and suggest significant policy implications.

The deterrence policy of crime can be categorized into three operations: the prevention of crime, the arrest and punishment of criminals, and correction activities. The National Police, Prosecutor's Office, the Supreme Court, and the Ministry of Justice are in charge of these activities. The evaluation of crime-related policies can be carried out by examining the followings criteria: first, whether sufficient resources were invested in order to implement these three criminal deterrence policies; second, whether the resources were effectively used; third, whether the policy regarding criminal deterrence was coordinated and managed in a coherent manner; fourth, whether the government was successful in tackling crime.

This paper is organized as follows. In section 2 we provide a theoretical framework for the analysis of criminal deterrence policy. In section 3 this study reviews the rising trend of index crime as a proxy for public security. We will also examine problems with crime statistics - whether or not the increase in reported cases reflects the rise in the actual amount of crime, since the number of actual crime differs from the size of reported case. Section 4 examines policy effectiveness of policing, investigation and prosecution, sentencing, and correction activities. In section 5 we conclude with the summary of analysis and policy implications.

2. Theoretical Framework of Criminal Deterrence Policy

In general the establishment and implementation of government policy begins with defining an objective of the policy. After setting an objective, it must be clear how one can measure the objective's accomplishment, what policy instruments can be used to attain that goal, and through what channel must policy instruments influence said goal. These four elements of policy requirement also apply to designing criminal policy.

The objective of criminal policy, or criminal deterrence policy, is to provide public security and to protect people's life and property by deterring the occurrence of crime. In order to assess the extent to which an authority attains this policy objective, it is useful to use a quantitative index. The most popular proxy is crime rate; namely, the amount of crime per population. [3] We can gauge how well the government achieves criminal deterrence and the quality of our public safety by comparing the level of crime in Korea with other countries and examining the long-run trend.

Among several policy measures, Gary Becker categorizes criminal policy instruments

[3] Crime rate is usually computed per 100,000 people in Korea. In this paper, the rate is estimated by dividing the amount of crime by 100,000 people, unless specified otherwise.

into deterrence and punishment, and claims that one can substitute the other.[4] As many of the policy instruments targeting crime deterrence contain both crime prevention and ex-post measures, the framework suggested by Becker may not be so helpful in analyzing criminal deterrence policies. For instance, we can say that it is an ex-post measure if an offender is incarcerated after crime is committed. However, imprisonment can be also seen as preventive, since the increased threat of punishment induces potential criminals not to commit crimes. Therefore, we suggest that criminal policy can best be systemically analyzed when a policy is examined with respect to the government organizations and their mandates: policing, sentencing, and correction activities.

First, policing refers to a physical initiative to prevent potential victimization, and the police are in charge of this procedure. We use three proxies for measuring the amount of resources spent to support policing: the number of police officers; the amount of expenditure on police; and the equipment capacity per police officer. Apprehension refers to the procedure to investigate and take custody of criminals, which is carried out by both the prosecutor's office and the police. The level of resource inputs devoted to arrest activities can be also measured by indices such as annual expenditures and workforce. Though policing and apprehension conceptually differ from each other, it is difficult to tell how much of the police workforce or budgets are spent on each activities. Therefore, two procedures are analyzed together for our convenience. The optimal level of resource input in policing and apprehension, and the effectiveness of policy are evaluated with intermediate variables such as crime rate and the probability of being prosecuted.

Second, sentencing is determined by a prosecutor's conviction of the accused, followed by a judge's ruling. In principle, it is also influenced by how the National Assembly establishes and amends penal laws and ordinances. There usually exists a positive correlation between the severity of punishment and criminal deterrence effect. Namely, the higher the level of penalty, the lower the probability of potential criminals committing crimes, and the repeat offence rate decreases for those who finish their sentence.[5] The level of punishment intensity can be examined by computing average sentencing length.

Third, correction is carried out by the Ministry of Justice. Their main job is to physically implement sentencing by the court and educate offenders in order to prevent future crimes. There are two ways to examine correctional activity: correction in prison and social correctional treatment, such as probation. The amount of resources invested in the correctional policy is usually explained through figures such as annual expenditures on correction, the number of prison and probation officers. While the effectiveness of the policy is evaluated by

[4] Becker (1968)
[5] Cooter and Ulen (2008)

initially examining the management condition of prisoners and probationers, the primary criteria for successful correction policy is to see whether those who received correctional education commit repeat offenses or not. In this sense, the repeat offense rate of prisoners and probationers is a significant variable for judging a policy's effectiveness.

The three policy instruments examined above influence criminal deterrence through different channels, and cost differently in their implementation. The government decides the optimal combination of these policies to successfully deter crimes. Yet, possibilities for coordination failure arise from decentralized decision-making procedures hindering effective and coherent criminal policy formulation. This is because those policies are exercised by the Police, the Prosecutor's Office, the Supreme Court, and the Ministry of Justice; whereas the amount of budget, the most critical factor in policy implementation, is planned by the National Assembly and the Ministry of Strategy and Finance. For example, when the government finds the current sentencing practices excessively severe and decides to alleviate the intensity of punishment for the purpose of protecting human rights, more policemen must be hired to suppress a predictable jump in crime, led by shortened sentence length. Given this inflexible decision-making procedure and organizational structure of the Korean government, it is important to empirically examine possible policy coordination failure. In the next section, we explore the current level of crime in Korean society and its long-term trend.

3. Trend of Felony

The most widely used benchmark of public safety is the number of crimes occurring in a certain period of time. Crime, the breach of one or more rules or laws for which some governing authority or force must ultimately prescribe punishment, varies by its type of violations. Crime involves the breach to human life and property (e.g. homicides or robbery), white-collar crimes (e.g. the violation of the Securities and Exchange Act and malfeasance in office), and minor offenses like traffic offense and noise pollution.

This paper focuses on felonies, instead of all crimes, for the purpose of examining public security in Korea. Prosecutors and the Police tend to list homicides, robbery, arson and rape as 'violent crime' (a heinous crime or felony). Since felonies are serious threats to human body and life, they provide useful indicators to show how safe the Korean society is.[6]

According to *the Criminal Analysis* published by the Prosecutor's Office, about 21,000 cases of felony were committed in 2007 (Table3.1). Felonies account for 1.1% of all criminal

[6] The Prosecution divides crime into penal offense and special law offense. Penal offense is classified into 'violent crime (heinousness)', 'violent crime (violence), 'property crime' and so on. This paper calls 'violent crime (heinousness)' as either heinous crime or felony.

cases, and 2.5% of penal law cases. Homicide, robbery, arson, and rape account for 5.4 %, 21.4%, 8.1%, and 65.1% respectively. Comparing 2007 to the late 1960s, felonies increased more than six times (Figure3.1).[7] During the same period, the population had increased by about 70 percent, which implies that felonies increased at a faster rate than population growth. The felony rate, defined as the number of felonies per 100,000 people, increased from 10 per 100,000 in the late 1960s to 43 per 100,000 in 2007, showing a four fold increase.

The notable feature regarding this rise in felonies has been its non-linear increasing trend. From the late 1960's to the mid-1970's, felonies were recorded around 3000-5,000, at which point they started rising to about 10,000 in the early 1980's. While the number had been relatively steady at about 10,000 cases from the early 1980 to the mid-1990's (about 15 years), it began accelerating in 1997 and has now doubled to 21,000 by 2007. The structural shift shown between the Asian Financial Crisis to the present can also be detected in the felony rates.[8]

The structural change observed for heinous crimes is also present for its every component: homicide, robbery, arson, and rape. From the late 1960's to 2007, homicide, robbery, arson, and rape surged twice, 4.5 times, 8 times, and 10 times respectively, making the year 1997 as a watershed (Figure3-2). Table3.2 indicates to what degree each crime had contributed to the overall increase of felonies from 1977 to 2007. One notices the soaring increase in arson and rape during the post-financial crisis period.

There are two issues to be addressed before analyzing the causes of this inexorable rise in felonies. First, did heinous crimes increase to the point that crime ranks as a major social and economic issue? We raise the question because the rise in crime rates since 1997 might be considered negligible if the absolute amount of increase is not high.

To answer this question, we compare the crime statistics with those of other nations. As each nation has different rules and laws, and aggregation standards for statistics of crime, a mere comparison would not be helpful. Instead of analyzing all crimes, we choose homicide rates in OECD countries. Intentional homicide rates from 2000 to 2005, reported by UNDP, show that the homicide rates in Korea were higher than average for OECD countries ([Table3-3]).[9]

Second, does the long-term rise in heinous crime statistics reliably reflect real shifts in crime? It may not be the case when considering the reporting effect. In general, empirical

[7] Although the *Criminal Analysis* is published since 1964, we use data from 1967 for statistical stability and consistency.

[8] The rise in the late 1970s is also noteworthy. However, we focus on the surge in the post-financial crisis and reserve the 1970s rise for other chance.

[9] UNDP has published *Human Development Report* almost annually since 1990, and crime statistics has been on the report from the very beginning. While crime statistics were limited to few nations until 2006, the report includes all member state from the 2007/2008 issue.

studies use the *reported* crime rather than *actual* crime, due to the lack of availability of true measures. For example, the number of rapes usually increases when reporting rates rise. The increase in reporting rates stems from many factors: victims are more willing to accuse offenders; a rise in police officers increases the probability of criminal arrest; and technological innovation, such as the DNA testing, improves the overall investigation. Therefore, when reported cases increase, rape seems to be on the rise despite the fact that the actual numbers are not increasing. If the rise in heinous crime is mainly attributed to the growing reporting rate, it would be misleading to interpret that felonies are increasing based on statistics shown in this section. Unless we have statistics on the number of actual crimes, not reported ones, it is very difficult to answer, in principle, the question of whether or not reported cases rightfully reflect real changes in the number of crimes.

However, some evidence implies that the dramatic rise in heinous crime statistics in Korea cannot be attributed to the alleged increase of crime due to reporting. First, homicides and arson have less incongruence between reported cases and occurred incidents. Homicides are the most accurately measured, because it is known to have relatively high ratio of reported case to actually committed cases. Arson statistics also have high reporting rates compared to others; people mostly report arson to police to put out fires; a thorough investigation is generally carried out regarding the causes of arson for damage compensation and insurance payment.

Over the last forty years, homicides have quadrupled and arsons have risen by eight times, and this surge has mainly taken place since 1997. The increase in the amount of crime since 1997 was so large that the rising reporting rates can explain only a fraction of it. It is hard to refute the fact that heinous crimes have accelerated from the late 1990's, even excluding rape and robbery statistics, which are difficult to accurately estimate.

Moreover, the fact that reporting bias is less present for felonies than other crimes minimizes the alleged incongruence between our dataset and reality. For example, the elasticity for reporting rates with respect to the changes in police numbers (victims' tendency to report the offense to the police) is higher for theft than robbery. More generally speaking, the number of heinous crimes is not as elastic as other crimes in terms of the responsiveness in the reporting rates of a crime result of changes in size of policemen. This is because the difference between the number of committed crimes and reported crimes are relatively small for heinous crimes.

Drawing from this inference, Figure 3-4 indicates an interesting implication. Taking the average of 1970's – 1980's value indexed as 1, the overall crime and violent crime increased 3.5 times and about 3 times respectively, whereas heinous crime increased more than four times. The fact that heinous crime shows a more dramatic rise than other criminal cases demonstrates that the soaring heinous crime can not be simply overlooked as an exaggerated trend stemming from the rise in reporting rates.

Furthermore, the trend of police staffing suggests that the rise in reporting rates is not the main cause of the rising heinous crime. In general, reporting rates may rise if the police presence increases, as the perceived likelihood of a crime being solved increases. The police force must show a dramatic increase since 1997, or the growth rate of police number should be higher than the previous years if we attribute the acceleration of crime to the reporting effect associated with the increasing number of police. If the changes in the number of police since 1997 do not coincide with our expectation, we can refute the argument that the rise in crime is due to a reporting effect. In the next section, we explore the trend of police forces, which is important not only in terms of the main purpose of this paper, but also as a starting point for understanding what the basic trend is.

4. Criminal Deterrence Policy of the Korean Government

(1) Policing and Apprehension

The main job of police officers is to prevent and investigate crime, and arrest criminals.[10] The prosecutors direct and supervise the work of police, and have a duty and right to investigate crimes.[11] How successful police and prosecutors have been in preventing crimes and arresting criminals can be evaluated in terms of resource inputs and outputs: the number of police and prosecutors, their respective budgets; and crime rates and arrest rates.

First, let's examine changes in the size of police forces. From the mid-1970's to the mid-1990's, the police force increased from about 57,000 to 160,000, but started to decline in 1996, and has since become stable at around 147,000 (Figure 4-1 (A)). The number of police forces per 100,000 populations also shows structural changes: the number doubled from 16 in 1975 to 34 in 1995, later decreasing to 30 per 100,000 people by 2007.

For a more thorough analysis, we broke down the police forces into police officers, combat police, and an administrative workforce. The number of police officers tripled from 33,000 in 1960 to 96,324 in 2007 (Figure 4-1 (B)). This 90 percent increase (an extra 63,000 police officers), namely 57,000, was hired between 1960 and 1997. Since the 1997 financial crisis, only 6,695 police officers - 10 percent of that total increase - have been newly recruited.[12] As for combat police, the number has seen the rapid increase from the 1970s to the 1990s, hitting roughly 60,000. Since 1996, however, it declined to 50,000, at which point the figure went below 50,000 in the mid-2000's. The size of administrative workers also showed a steady

[10] The Police Law of Korea, Article 2 and 3.
[11] The Law on the Prosecution Office of Korea, Article 3
[12] Since 1998, however, the number of police officers per 100,0000 populations has stopped growing at 20 for the past ten years

drop, from 8,000 to 4,000 by 2007, half of the size in 1995. In sum, the size of police forces has been de facto frozen, while the proportion of police officers in the total police force has gone up.

The capacity of police forces must be also analyzed not only with the size of forces, but also with the available resources which is distributed per police officer. More specifically, police cars, electronic devices, and equipment for scientific investigation are also an important criteria to evaluate the effectiveness of thwarting crime. The budget expenditures for police, in real terms, surged ten times between 1975 and 2006, with real expenditures per police officer also increasing five times during the same period (Figure4-2). Unlike the police workforce, the annual expenditure in police shows a linear increase during the entire period. This implies that there could be an increase in resource inputs available per police officer for policing and arrest.

However, the proportion of labor cost in the total spending and its trend directly oppose the presumption we made above (Figure 4-2 (B)). While 50 percent of total police budget was spent for labor costs between the early 1980's and the mid-1990's, the proportion of labor cost increased to 65 percent in the mid-2000's, which is 15%p greater than the initial level. The increase in the proportion of labor costs, despite the stable police size, implies that the expenditure increase was mostly used for raising wages instead of improving the police department's ability to tackle crime. In order to support this claim, this paper estimated E, which denotes the annual expenditure per police population in the non-labor sector, which is the amount of expenditure one police workforce uses for policing activities.

$$E = \frac{Total\ \ Expenditure - Labor\ \ Cost}{Total\ \ Police\ Employees} \text{-------(1)}$$

Figure 4-2 (B) shows the long-term trend of E. One can see that non-labor expenditures increased from the early 1980's to the mid-1990's, but halted after the financial crisis. This suggests that the expenditure increase during the post-financial crisis was mainly spent on increasing wages of police officers, not for increasing the number of police or improving policing capability of each police officer.

Let's examine the level of prosecution resources. The number of prosecutors has shown a steady rise from 700 in the late 1980's to 1,700 in 2007. Employees in the Prosecutor's Office, excluding prosecutors, doubled from 4,000 in 1988 to 8,000 in 2007 (Figure4-3), with prosecution expenditures in real term increased 4.5 times from 1988 to 2007.

However, it is premature to conclude that prosecution resources show a steady growth. The number of the assistant/ancillary workforce per prosecutor has declined from 8 to 6 people since the 1990's. The amount of expenditure per prosecutor also stopped growing since 1997

(Figure 4-3).[13] Therefore, despite the increase in the number of prosecutors, assistant employees, and annual expenditures, the decline in the resource input per prosecutor suggests that the investment has not been sufficient enough to improve investigation capability.

The indicators of criminal deterrence prove that the government's resource investment in crime sanction and prosecution has been running short to curb the spread of crimes during the past ten years. The first evidence is the arrest rates of heinous crime, which is a proxy of crime investigation capability. The arrest rates were consistently around 96 percent from 1977 through 1997, whereas the rates declined to 90 percent by 2007 (Figure 4-4).

Other evidence to backup this argument is the number of prosecuted offenders and the prosecution rates, which also shows a drop after the financial crisis. These two figures explain how successful the prosecution office is in filing charges against the arrested. The number of the prosecuted individuals decreased, despite the increase of crime since the economic turmoil of the 90's. Prosecution rates, indicating roughly 50 percent before the financial crisis, also started to decrease and stabilized around 30 percent in the mid-2000s (Figure 4-5(A)). When we broke down the prosecution rates by crime category, the rates of homicide and rape had not changed much, while robbery and arson demonstrated a dramatic decline, leading to a fall of overall prosecution rates for heinous crimes (Figure 4-5 (B)).

The heavy fall of arrest and prosecution rates is significant in two ways. First, the investigation capability of police and the prosecution has not been improved to deal with the social environment that pushes crime upward. Second, the failure in preventing repeat offense poses a potential danger to increase heinous crime. In addition to the two indicators, which assess the level of the police and prosecution officer's abilities to fight crime, crime rates, already discussed in Section 3, also have increased at great level.

From our analysis in this section, we conclude that the stagnated investment in resources for the police and prosecutors was significantly detrimental to tackling the rising crime levels since the Asian financial crisis in 1997-1998.

One additional issue regarding police forces is whether felonies increase due to the reporting bias effect, which might drive from the growing size of police forces. As mentioned in the previous section, one of the strongest arguments for attributing the increase in crime statistics to reporting effect, instead of the rise in actual crime, was that the hiring of more police pushed the reporting rates upward. To back up this claim, there should be a greater increase in police growth rate after 1997, which is not the case when we consider the stagnant level of police.

[13] We do not rule out the possibilities that the decline in the assistant workforce per prosecutor is the consequence of office computerization and increased efficiencies, reducing the number of administrative employees

(2) Sentencing

The sentencing in criminal trials is determined by the seriousness of the crime, the penal laws in question, and the way a judge interprets and applies the laws to the case at hand. Among the factors that influence sentencing, the penal law on heinous crime has shown almost no changes since the establishment of the criminal law in 1953. There was a small amendment to the criminal law in 1995. It was intended to change the unit of fine from "hwan" from "won" but the actual sentence has not been changed. Therefore, when the severity of punishment changes, it must be mainly explained by the sentencing practices of the court.

We can examine shifts in the sentenced length in-between the financial crisis and now by computing the average length sentenced for each crime. We denote AS_t as the average length of a sentence at the first trial for heinous crime in year t.

$$AS_t = \frac{\sum_{i=1}^{N_t} \delta_{it}}{N_t} \quad -----(2)$$

N_t : The number of defendants at the first trial at year *t*
δ_{it} : The length of sentence for defendant *i*

However, there are a few obstacles to be addressed before calculating the average sentencing and tracing a pattern. First, due to a difference regarding crime categories in two primary sources for our dataset, we were unable to use Formula 2. The information on the sentenced length for a defendant was included in the "*Yearbook of Judicature*". This book provided statistics according to the name of an offense in the criminal law, categorizing "homicide," "theft and robbery," 'rape and harassment," and "arson and accidental fire", unlike the "*Criminal Analysis*", published by the Supreme Public Prosecutor's Office, which lists crime statistics by each name of an offense, such as "homicide", "robbery", "rape", and "arson".[14]

To solve this problem, we defined semi-heinous crime, as a proxy for felonies, which followed the category of crime in "*Yearbook of Judicature*". By defining "homicide," "rape and harassment," and "arson and accidental fire" as semi-heinous crimes, we were able to analyze how the decisions of the courts changed the length of sentencing. Compared to heinous crimes,

[14] The Yearbook of Judicature published arson and accidental fire as a separate crime category, as well as robbery and theft until 2001. Rape and harassment has been classified as one single category even before 2001. Homicide has been also reported as single category.

semi-heinous crimes exclude robbery, but include accidental fire and adultery. We exclude "theft and robbery" because the size of theft is substantially large that the number was greater than the total for all categories of heinous crimes. Since theft is not normally listed as a heinous crime, if we were to include it in our analysis, the number of theft cases might mislead the real trend in sentencing regarding heinous crimes (Table 3-1).

In semi-heinous crime, "rape and harassment," and "arson and accidental fire" also contains name of offenses that are not in the scope of heinous crime. As the size of number included in our analysis is relatively small, and we conclude that it does not cause a serious distortion on our estimation. Therefore, we first estimate the average sentencing of heinous crime by quantifying the average length of semi-heinous crime, and determine factors that might give misleading patterns, drawn from definitional differences, in order to gauge the reliability of our estimation.

Second, we need to use weighting for computing average sentencing lengths. The data source in the *Yearbook of Judicature* provided categories of sentencing and the number of criminals sentenced with some range of length, not the actual length of each sentencing. For example, data on penal servitude for a definite term was classified by "less than one year," "more than three years," "more than five years," and "more than then ten years." In other words, the information given in the book is how many criminals are imprisoned for a certain range of term. Therefore, it is required to give weights to each sentencing range in order to calculate the average length of sentence for semi-heinous crime.

$$AS_t = \frac{\sum_{j=1}^{N_t} \alpha_j d_{jt}}{N_t} \quad -----(3)$$

d_{jt} : The number of defendants at each range of sentence
α_j : The average length of sentence or weight of each range of sentence

Third, punishment can take several forms: confinement to prison for definite terms or for life, capital punishment, monetary penalty, or suspended sentencing. It is difficult to quantify the court's decision and to calculate the average length of imprisonment. If the ratio of each sentence to all sorts of crime has been uniformly maintained, we can use Formula 2 to calculate the sentence length and to see the long-term pattern. Unfortunately, the ratio of each sentence to category of crimes has been changing for the past thirty years. In the late 1970's, forty percent of those convicted were sentenced either to capital punishment or imprisonment, while the number declined to twenty percent in the mid-2000's (Figure 4-6 (A)). In case of semi-heinous crime, since the quality of crime is comparably serious, the average prison sentence remained at

a high level compared to other criminal cases, yet the ratio has shown a drop from approximately 60 percent in the late 1970's to nearly 40 percent in the mid-2000's (Figure -6 (B).

To minimize misleading outcomes from the variety and the changing proportion of sentencing types, this paper estimates the average prison sentence by setting two rules. We first compute the average period of sentence AS_t only for penal servitude for a definite term. Table 4-1 describes the range of prison sentence in the *Yearbook of Judicature*, with weight α_j for each range section. Although the most of sentence range section states its minimum and maximum, it is not a good idea to set a median value for α_j because the sentence range of "more than ten years" does not have a maximum value. Therefore, as shown in Table 4-1, we weigh 15 years for "more than ten years" section, and review the possibility of overestimation and underestimation of the average sentence.

We use the *Yearbook of Judicial Affairs* from 2005 instead of the *Yearbook of Judicature* for the calculating of average sentence length for definite imprisonment. The *Yearbook of Judicature* does not publish the number of defendant in each sentence section from 2000 beyond. Fortunately, the *Yearbook of Judicial Affairs* reports the number of defendants by sentencing range since 2005, in a same way as the *Yearbook of Judicature* did until 2000.

In addition, we estimate a new average that also covers non-numeric sentencing such as imprisonment for life, monetary penalty, and suspended sentencing. We set monetary penalty and suspended sentencing as zero, and imprisonment for life as 30 years for the value of α_j. This paper will also check the appropriateness of weighting values in many ways in the later section.

Fourth, we needed an assumption regarding the quality of crimes for the period of our analysis in order to evaluate the severity of sentencing. It is impossible to conclude that the courts favored weaker sentencing than from previous years merely because the average value had decreased. For instance, even if it falls into the same category of homicide, there might be more homicides cases which offenders twenty years ago have committed murder, chopped the body into pieces, and threw it into river than recent years. Neither can we claim harsh sentencing is more favored by the court based on increasing length of average sentence, because there are possibilities that offenders today might murder victims with greater cruelty. Therefore, without any information on the quality of crime, changes in the average of prison sentence would not play as an evidence to assess the courts' decision.

In our analysis, we assume that the quality of crime after the financial crisis has

become more serious compared to that of the pre-financial crisis time. Our assumption coincides with the general public perception that the push factors of crimes have increased due to deteriorated socio-economic conditions and the growing violence in the society. We formulate an inequality as below, setting QC_t as the average quality of crime.

$$QC_{before1997} < QC_{after1997} \quad \text{---------} (4)$$

Presuming that the level of punishment intensity is the same, the average length of imprisonment must increase corresponding to the deteriorating trend of the seriousness of crime. Furthermore, if the Korean government is aware of the substitute relationship between the number of police and the severity of sentencing, it must increase the prison sentence length in order to cope with the effect of the non-increasing number of police during the post-financial crisis.

Therefore, we make a null hypothesis whether the sentencing policy responds coherently to socioeconomic transformation or policing policies. Our null hypothesis is that average sentence before 1997 is longer than the average after 1997. If the measured length of sentencing before 1997 is greater than after 1997, it is impossible to reject the null hypothesis. This implies that not only the decision by the court on sentencing period has not become stricter. Instead, the decreasing intensity of punishment underestimates the actual length of the decline given that the quality of crime has become more serious.

$$AS_{before1997} \geq AS_{after1997} \quad \text{---------} \quad (5)$$

Combining all four factors, the outcome of our estimation on the prison sentence is shown in Figure 4-7. Figure 4-7 shows us that the average length of prison sentence during the post-financial crisis increases roughly one year longer than the pre-financial crisis. This might lead us to reject the null hypothesis that the sentencing becomes more severe.

However, our analysis on the genesis of the decline supports the null hypothesis and concludes that the average term of sentencing after 1997 shortened compared to the previous period. The rise in sentencing length stems from two factors: the decline in the proportion of defendant sentenced to “less than 3 years” in prison and the increase in the proportion of “5 to 10 years”, and “more than 10 years” (Figure 4-8). The drop in the proportion of defendant sentenced to “less than 3 years” in prison is accompanied by the rise in the proportion of monetary penalty and suspended sentencing and the decrease in the proportion of defendants

sentenced for imprisonment. In other words, the violation of criminal laws mostly sentenced to less than three years in prison is now likely to be sentenced by court to monetary penalty or suspended sentencing.

The enlarged size of people sentenced to "more than 10 years" must be interpreted to be the sign of less severe sentencing when we take account of the number of defendants with life-time sentencing and death penalty. Figure 4-9 demonstrates that the number of people with life-time sentencing and death penalty has been decreasing or stagnant. Furthermore, capital punishment is considered to be de facto life sentence as it has not been implemented since 1998. [15]Therefore, the increase in defendants sentenced to 'more than 10 years" can be interpreted that less severe term are sentenced to the people, who must have sentenced to life or to death penalty in the past. Suggesting another evidence of the weakened sentencing practices, we can not again reject the null hypothesis.

After considering all these factors, we reach a conclusion that the probability of receiving a suspended sentence or monetary penalty increases in the less severe crimes whereas the probability of being sentenced to death penalty or to imprisonment for life decreases compared to the pre-financial crisis period. Simply put, the real severity of sentencing has not become greater. Figure 4-6 which shows the average sentencing proves our reasoning. The average sentencing, including imprisonment, monetary penalty, suspended sentencing, life-time imprisonment, and death penalty, does not differ much when we compare the pre- and post-financial crisis time.[16] In conclusion, the outcome implies that we cannot reject the null hypothesis (Formula 5), and that the ruling of the courts changed in a way to water down the effect of criminal deterrence, considering the average seriousness of crime has worsened and the number of crime cases has increased.

(3) Correction

The primary role of the correctional system is to execute the court's decision of sentence to the criminal, ultimately guide and educate criminals, and rehabilitate and reintegrate them as healthy members of a society.[17] The correction of criminals is mainly classified into two parts: correction in official facilities, such as prisons; namely, incarceration, and social correctional treatment. Social correctional treatments include probation and parole, social

[15] The total number of people executed is 902 (19 people per year) from 1948 to 1998. From 1989 to 1998, the execution had shown a decline. There has been no execution beyond 1998.

[16] Even if we give higher weight to death penalty than imprisonment for life, there is no chance that the declining trends in death penalty render Figure 4-7 invalid. Same reasoning applies to the likelihood when the weight given to imprisonment for life is overestimated.

[17] The Law on Sentencing and Treatment for Prison Inmates, Article 1.

welfare service command, and so on. Among these forms of social corrections, the probation and parole system is the most relevant system for preventing repeat offenses. Probation refers to a sentence which may be imposed by a court in lieu of incarceration. An offender on probation is ordered to follow certain conditions set forth by the court, under the supervision of a probation officer for the purpose of rehabilitation.[18] Traditionally, correction programs have focused on incarceration, but the emphasis on social correctional treatment programs, which supervise and guide suspended offenders and the released in society, is increasing in recent years.[19]

Correctional facilities and probation systems are in need of human resources and physical investment for their activities. Trends of resource inputs in the correctional activities are as follows. The number of prisoners per prison officer decreased from 7 in the early 1980's to 3 in the mid-2000's (Figure 4-10 (A)). The real expenditure per prisoner quadrupled from 1981 through 2007.

As shown in Figure 4-10, resource input in prisoners has been increasing since the 1980's. But the increasing trend in the pre- and post-financial crisis can be explained by different reasons. During the pre-financial crisis, while both prison population and expenditures (factor inputs) increased, spending in prison has grown faster than the prison population, ultimately increasing expenditures per prison population. During the post-financial crisis, however, the resource input per prisoner precipitated because the prison population decreased whereas the expenditures either increased or at least maintained their previous level (Figure 4-10 (B), (C), (D)).

The probation system was first introduced for juvenile delinquency in 1989, and later extended to all ages. This implies that the government's effort to prevent repeated crimes has shown improvements in quality in between financial crisis and the present. The number of probationers per probation officer sharply increased since 1997, when adult offenders also became eligible for probation. But the number has shown a steady downturn at 150 people per probation officer because probation officers have increased (Figure 4-11). In sum, the size of government workforce in incarceration and probation proves that the government raised its labor inputs since the financial crisis.

However, it is difficult to conclude that the increased level of resources in correctional programs have been effective in preventing released prisoner from committing future crimes. The proportion of repeat offenders among felony criminals has increased. In the early 1980's, the number of first time offenders, who committed felonies, was about 9,000, occupying about

[18] Hyunamsa, (2007), p.1088

[19] The Criminal Law, Article 59-2, 62-2, 73-2, The Juveniles Law, Article 32, The Law on Probation and Parole, Article 3.

70 to 80 percent of all felony criminals. Yet, the number of first offenders decreased to 4,000 in 2005, whereas the size of offenders convicted of more than a third crime was pushed to more than 6,000 by 2007, demonstrating the biggest share. (Figure 4-12).

Although we are cautious to claim that the failed investment in correctional policy programs increased the number of heinous crimes committed by the repeat offenders, the growth in repeat offenders implies that invested resources in correctional programs needs greater effective allocations. More in-depth discussions and empirical analysis on how effective correctional facilities and probation system are used in preventing repeat offenses must be followed to examine this issue. The correctional system needs coordinated action with sentencing by the courts. And once the probation and parole system turns out to be ineffective in correctional education for certain crimes, it is desirable that offenders with those crimes be incarcerated on a more long-term basis.

5. Conclusion

The Korean economy successfully overcame the macroeconomic downturns driven from the Asian financial crisis in a very short period of time. The economic shock, however, generated a variety of social problems, one of which was the increase in felonies, or degradation of public safety. This paper examined the possibility that the Korean government has not implemented criminal policies in the best manner to solve this problem, assuming that the financial crisis generated socio-economic changes more favorable for criminality. In other words, we reviewed whether or not the government changed its policy priorities to address the extremely vulnerable social conditions to criminality, stemming from the economic recession. We also examined whether the government organizations failed to respond respectively or to make coordinated actions, eventually causing a dramatic increase in crimes which was more than incontrollable.

In this paper, we examined criminal deterrence policies – policing, prosecution, sentencing, and correction system - by checking resource inputs and policy effects. We concluded that the government's policy measures were far more inappropriate to cope with the socio-economic transformations during the post-financial crisis. Human and physical resource inputs into the police have virtually stopped, as have similar resources for the improving of investigative capabilities for prosecutors. Therefore, arrest and prosecution rates have dropped since 1997. With respect to sentencing, the Korean judicial system has not increased the severity of punishment. Given the degrading in the quality of crime and the decreasing amount of inputs into the policing and prosecution, the government should have increased the severity of punishment to deter crime. Lastly, felonies increased due to the rise in the number of repeat

offenders with more than a third offense though resource inputs in correctional system have shown a huge growth for imprisonment and probation. In sum, the insufficient efforts in respective policies and the coordination failure of these criminal policies have given substantial impact on doubling felonies since the economic downturn.

This research brings explicit policy implications. In order to prevent possible additional degradation of public safety, stemming from the socioeconomic transformation after the financial crisis and the current global economic woes, the government must put more efforts into increasing the effectiveness of policy and to investing more resources into said policies. To achieve this goal, it is necessary to review the policy priorities of the government at the root. Furthermore, extensive empirical research on the effect of resources available should be carried out so as to systemically support the improvement of policy effectiveness. Lastly, this paper emphasizes cooperation and the institutional mechanisms that foster policy coordination among the Police, the Prosecutor's Office, the Ministry of Justice, and other relating government organizations.

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Table 2-1 Theoretical framework of criminal deterrence policy

(A) Policy measures and goals of criminal deterrence

Policy Measures	Policy Instruments	Intermediate Variables	Policy Goal
Policing	Police Forces and Expenditure	Arrest Rates	Control the number of crime and crime rate
	Prosecutor Workforce and Expenditure		
Sentencing	Prosecutor's demanded sentence		
	Sentence by the courts		
Correction	Workforce in Correctional Activities	Repeat Offense Rates	
	Expenditure in Correctional Activities		

(B) Government organizations in charge of policy instruments

		Government Organizations			
		The Police	The Prosecution	The Court	The Ministry of Justice
Criminal Deterrence Policy	Policing	○			
	Apprehension	○	○		
	Sentencing		○	○	
	Correction				○

Table 3-1 The number of crimes and trial cases in 2007

Crime Occurrence and Treatment (*Criminal Analysis*)				The first criminal trial (*Yearbook of Judicature*)	
Name of Offense	Reported case	The Prosecuted	Cases in Trial	Name of Offense	Received case
Criminal Offense	845,311	269,521	63,695	Criminal Offense	110,388
Homicide	1,124	674	674	Homicide	762
Robbery	4,470	1,394	1,397	Robbery and Theft	14,044
Theft	212,530	22,353	10,736		
Arson	1,694	402	392	Arson and Accidental Fire	803
Accidental Fire	1,908	405	27		
Rape	13,634	4,052	2,017	Rape and Adultery	2,153
Adultery	613	41	36		
Others	609,338	240,197	48,416	Others	92,626
Special Law Offense	1,120,666	772,952	53,134	Special Law Offense	139,784
Total	1,965,977	1,042,473	116,829	Total	250,172
Heinous Crime	20,922	6,525	4,480		
Semi-Heinous Crime	18,973	5,574	3,146	Semi-Heinous Crime	3,718

Notes: Heinous crime includes homicide, robbery, arson, and rape. Semi-heinous crime includes homicide, robbery and theft, arson and accidental fire, rape and adultery. Refer to section 4 (2) for the discussion on crime definition.

Source: *Criminal Analysis* 2008, pp.50-55, 343-345,
Yearbook of Judicature 2008, pp.864-873.

Table 3-2. Proportion of felonies and growth rate

	1977	1987	1997	2007	1977-2007
Number of crimes					
Heinous Crime	5229	9135	11914	20964	
Homicide	516	631	815	1094	
Robbery	1204	3023	4425	4577	
Arson	330	558	885	1690	
Rape	3179	4923	5790	13604	
Proportion (%)					
Heinous Crime	100.0	100.0	100.0	100.0	
Homicide	9.9	6.9	6.8	5.2	
Robbery	23.0	33.1	37.1	21.8	
Arson	6.3	6.1	7.4	8.1	
Rape	60.8	53.9	48.6	64.9	
Average annual growth rate (%)					
Heinous Crime		6.2	2.9	6.5	5.2
Homicide		3.4	2.4	3.9	3.2
Robbery		12.1	6.4	1.5	6.7
Arson		4.9	5.9	9.3	6.7
Rape		5.0	2.0	9.6	5.5

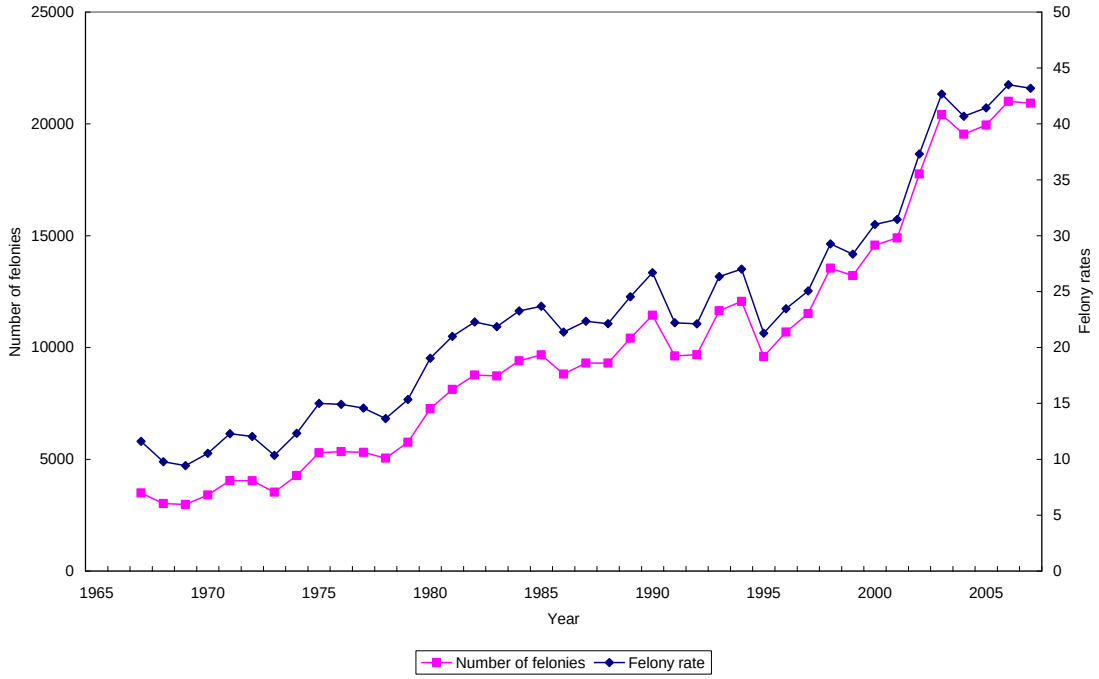
Notes: The number of cases is the three-year average before and after the year. The average for 2007 is the average of 2006 and 2007. The average annual growth is computed by first estimating a growth rate for a year, and computing the average of 10 years.

Source: *Criminal Analysis*

Table 4-1 Weight given to a sentence range for computation of the average prison sentence

	Suspended Sentencing	Fines	Imprisonment for definite terms					Imprisonment for life	Death Penalty
			Less than a year	1-3 years	3-5 years	5-10 years	More than 10 years		
Weight	0	0	0.5	1.5	4	7.5	15	30	30

Figure 3-1 The number of Felonies and felony rates, 1967-2007

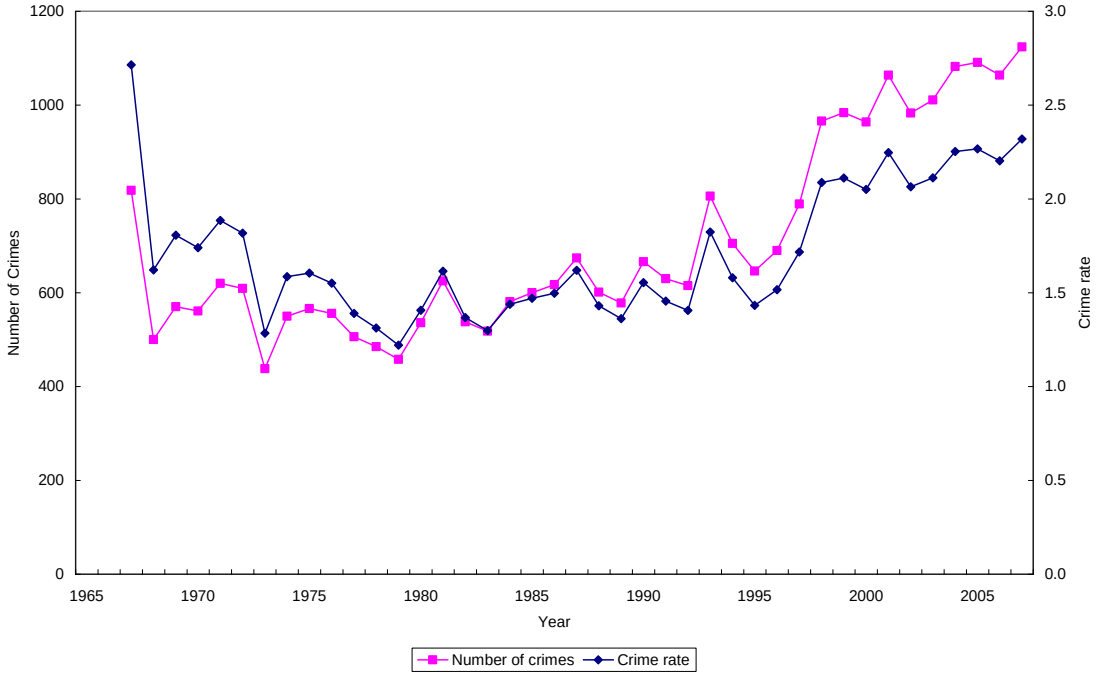


Notes: Crime rate is computed per 100,000 people.

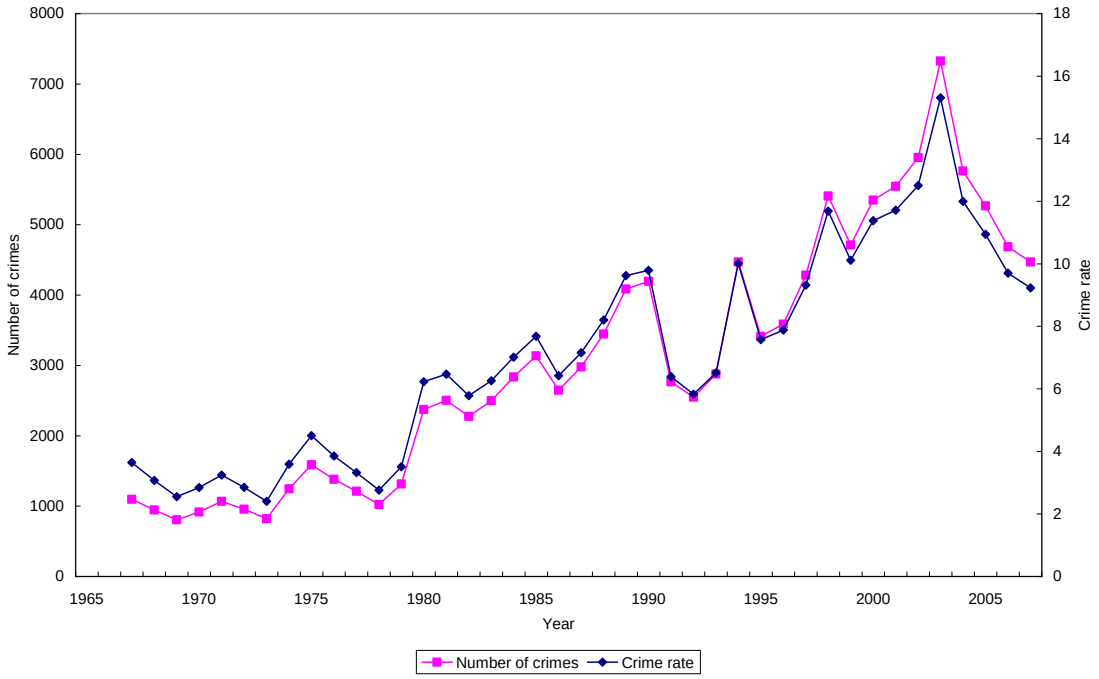
Source: *Criminal Analysis, Korea Statistical Yearbook*

Figure 3-2. The number of heinous crimes and crime rate by category, 1967-2007

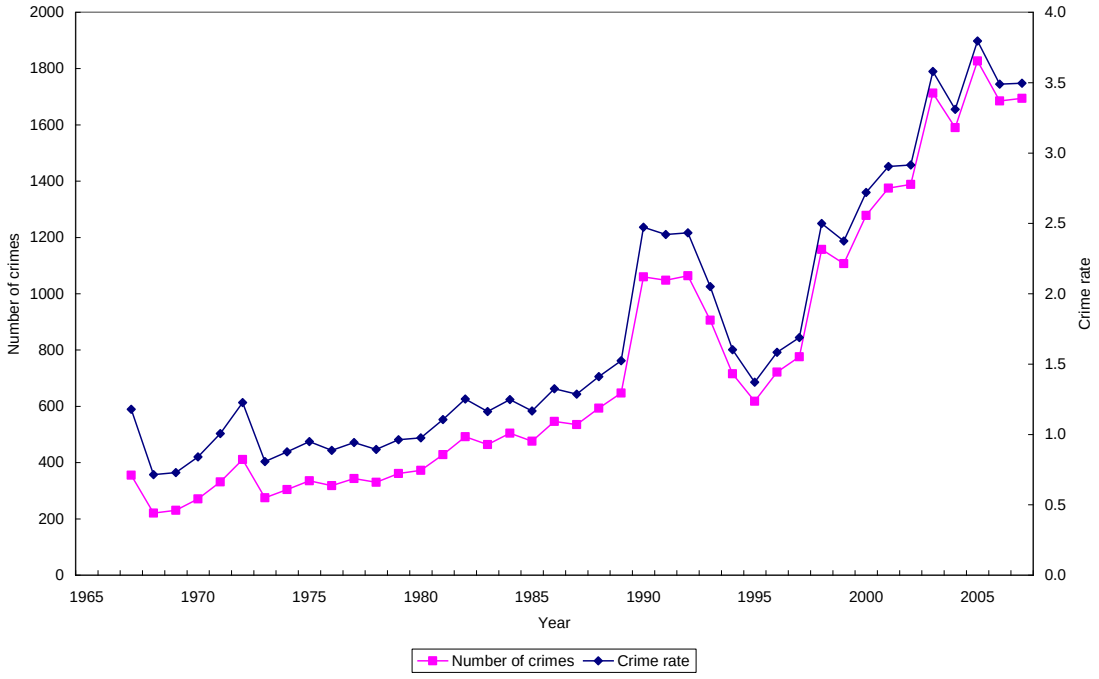
(A) Homicides



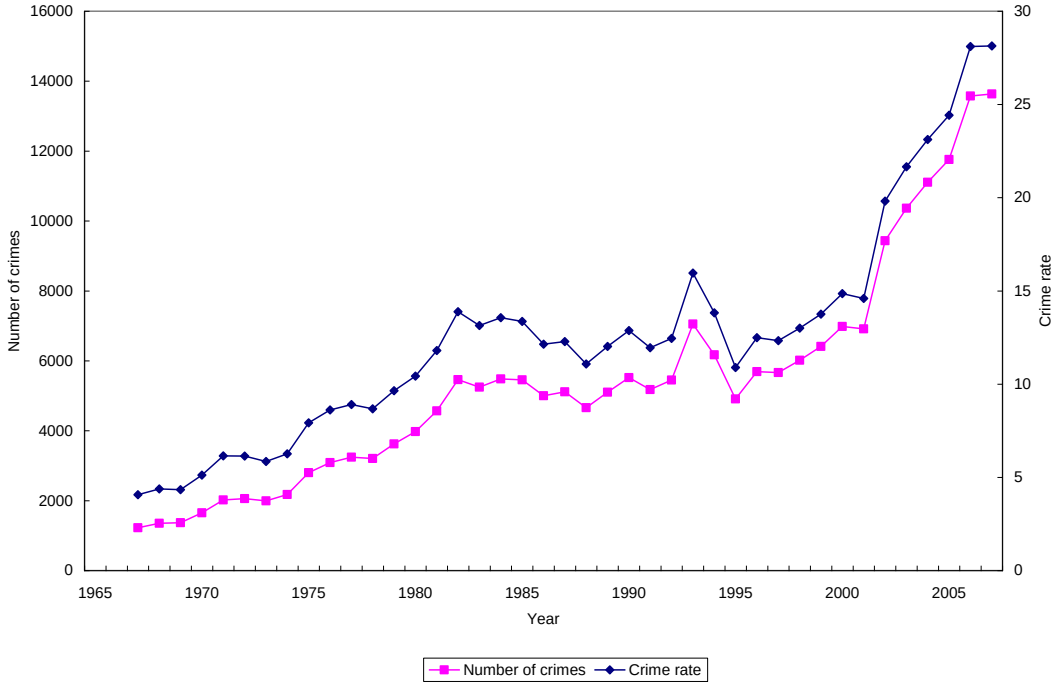
(B) Robbery



(C) Arson



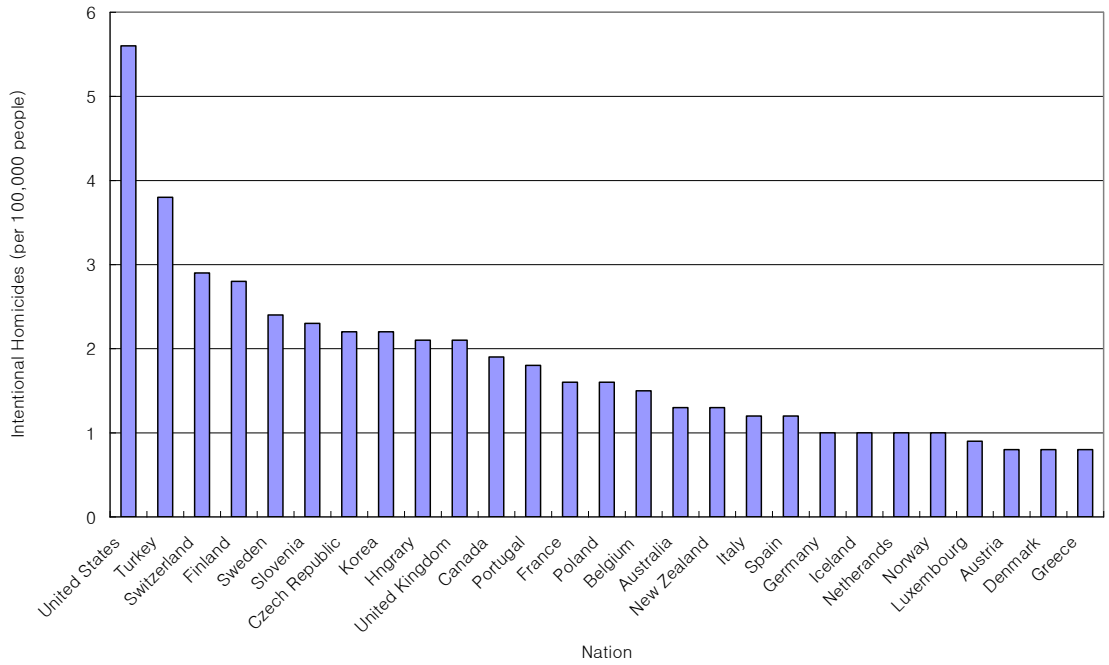
(D) Rape



Notes: Crime rate is computed per 100,000 people

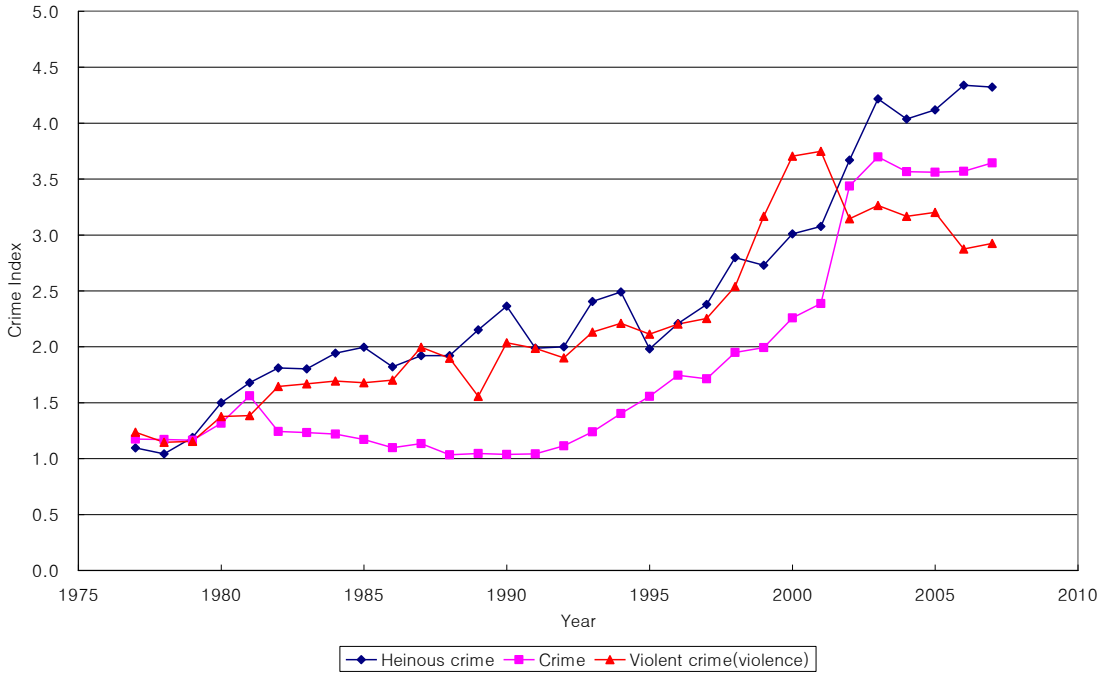
Source: *Criminal Analysis, Korea Statistical Yearbook*

Figure 3-3 Intentional crime rates of the OECD nations, 2000-2004



Notes: Crime rate is computed per 100,000 people. The homicide rates of Mexico marks 13 per 100,000 people, the highest among the OECD nations, but excluded in this figure. The average of homicide rates in the OECD countries is 2.16 (1.77 excluding Mexico), median is 1.6.
Source: UNDP, *Human Development Report 2007/2008*, pp. 322-325

Figure 3-4 Heinous crime, violent crime (violence), and all crimes, 1977-2007

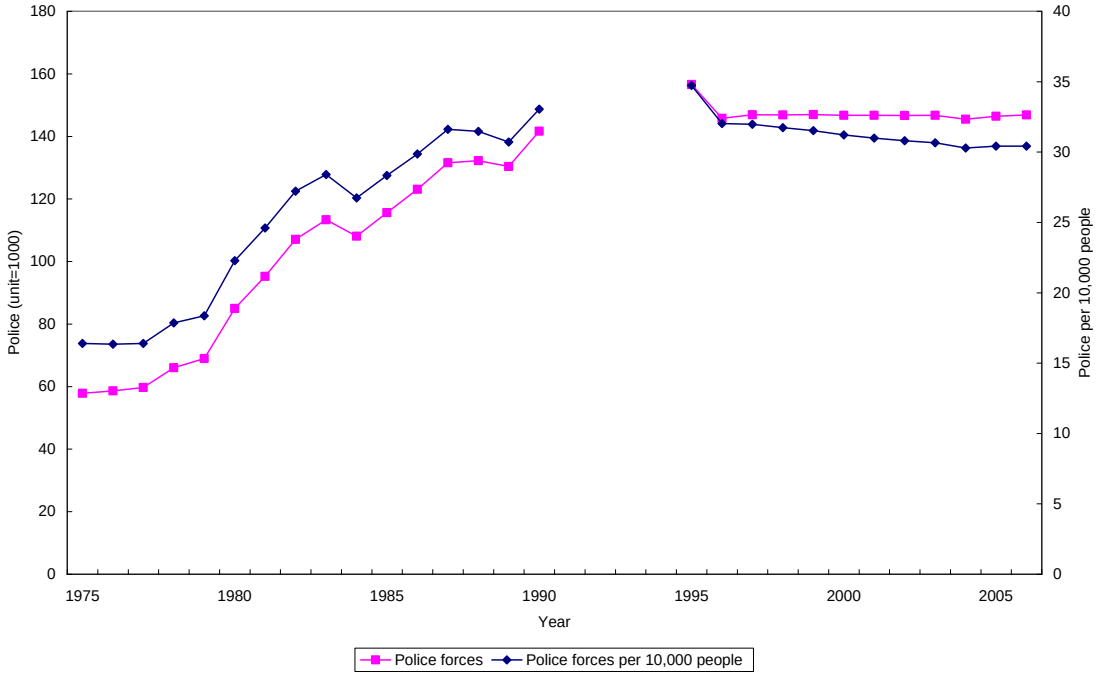


Notes: The average of crimes occurred in 1970 - 80s is indexed as 1.

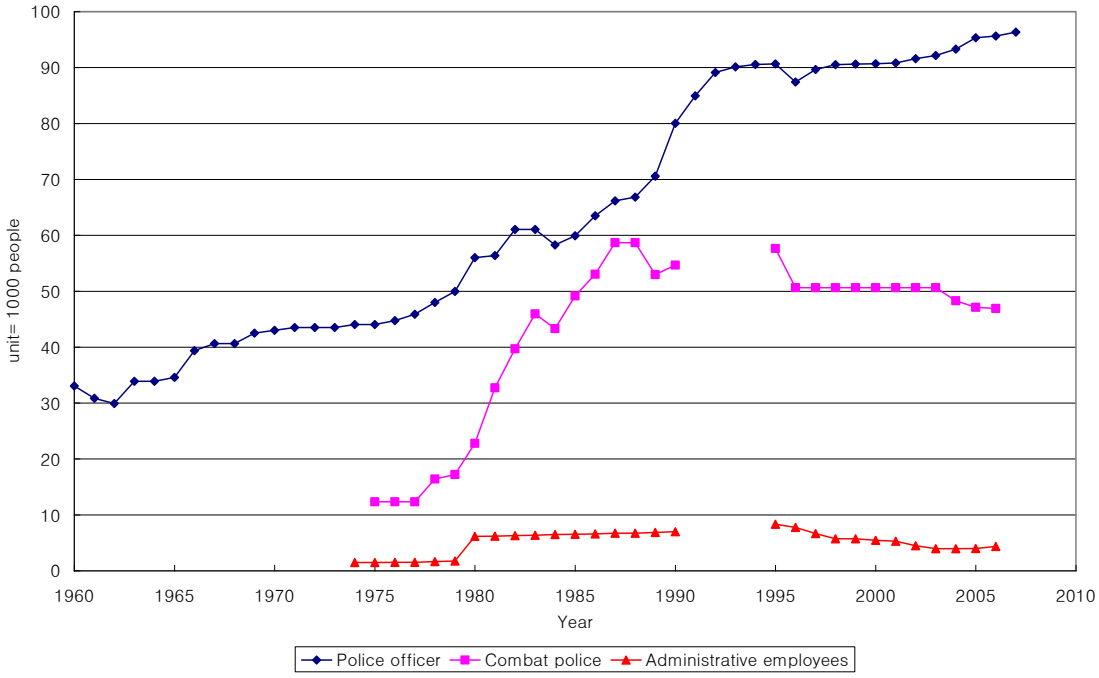
Source: *Criminal Analysis*

Figure 4-1 Trends in Police

(A) Police, 1975-2006



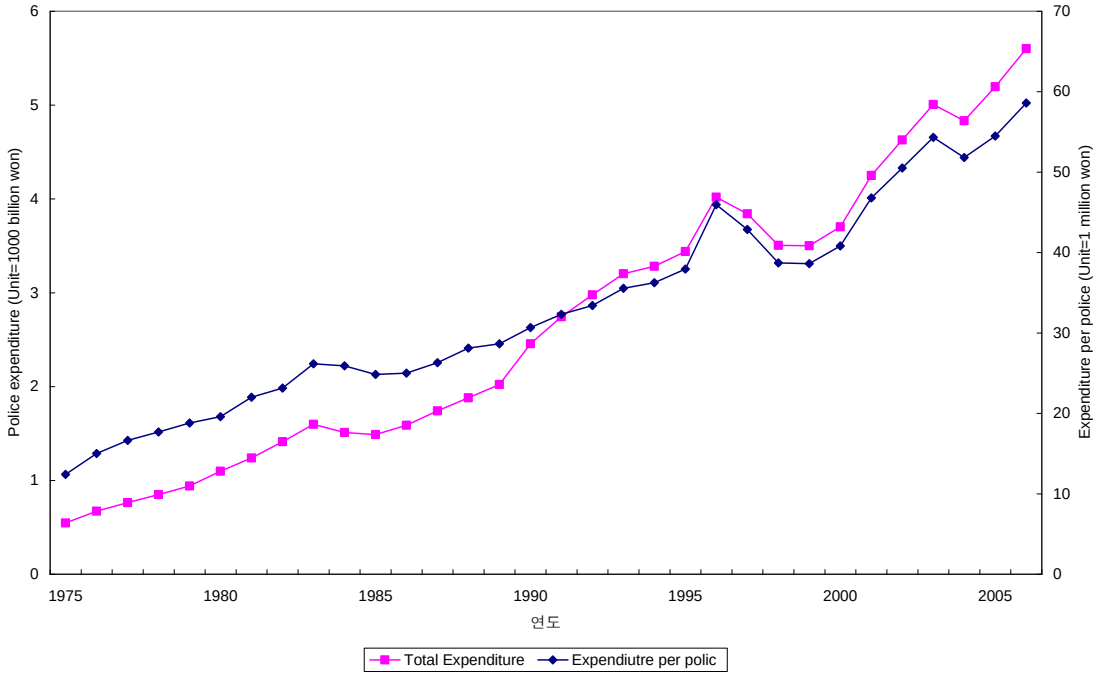
(B) Police officers, combat police, administrative employees, 1960-2007



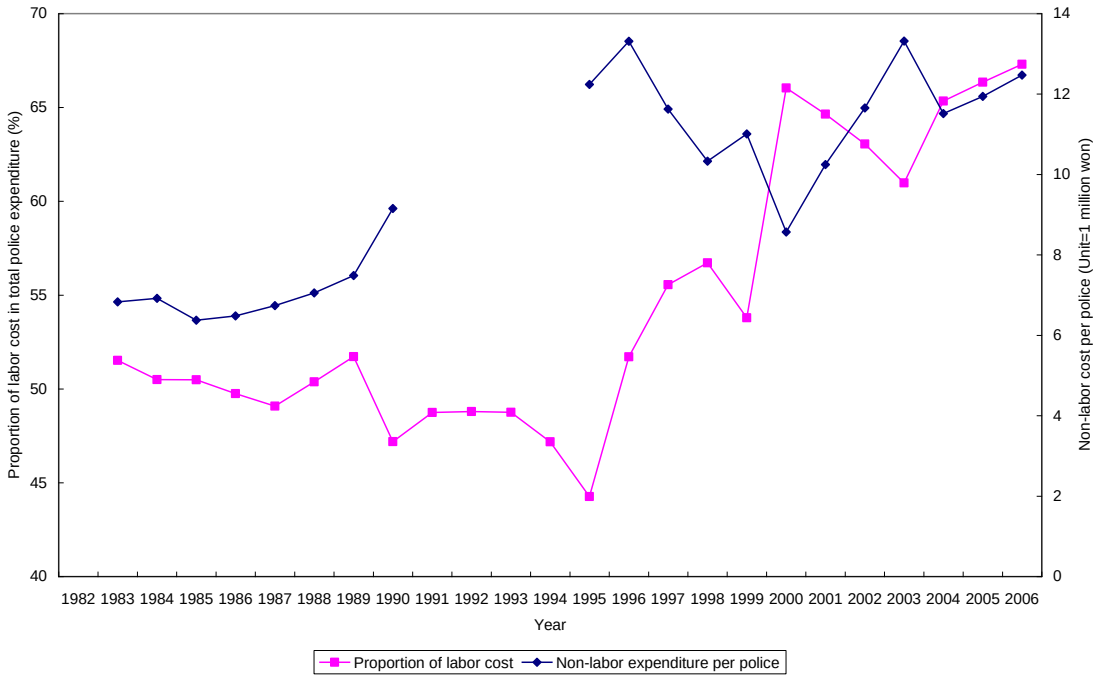
Source: *The Whitepaper of police, Statistical Yearbook of Police, KOSIS*

Figure 4-2 Trends in Police expenditure (real term, 2000=1)

(A) Police expenditure, 1975-2006



(B) Proportion of labor cost in police expenditure and expenditure on non-labor cost per police, 1982-2007



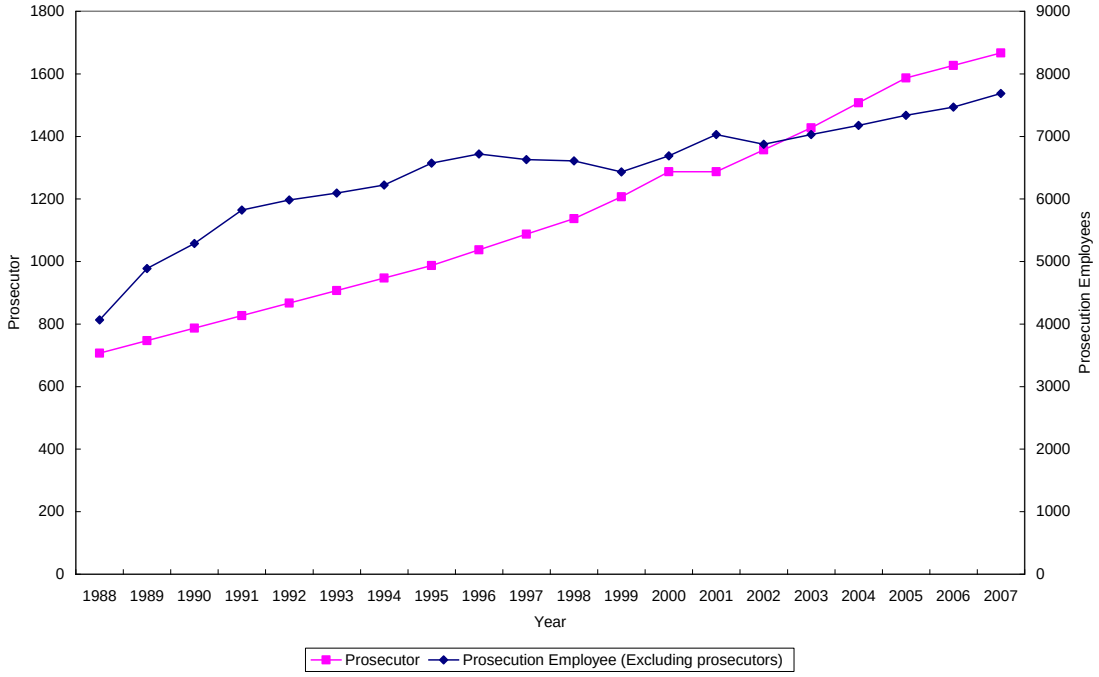
Notes: We divided total police expenditure by the number of police officers because there are many years that the number of total police employees is not available.

$$Raitoof\ \ labor\cos t = \frac{Labor\cos t}{Total\ PoliceExpenditur e}$$

Source: *The Whitepaper of police, Statistical Yearbook of Police*

Figure 4-3 Trends in workforce in the Prosecution and expenditure

(A) Workforce in the Prosecution

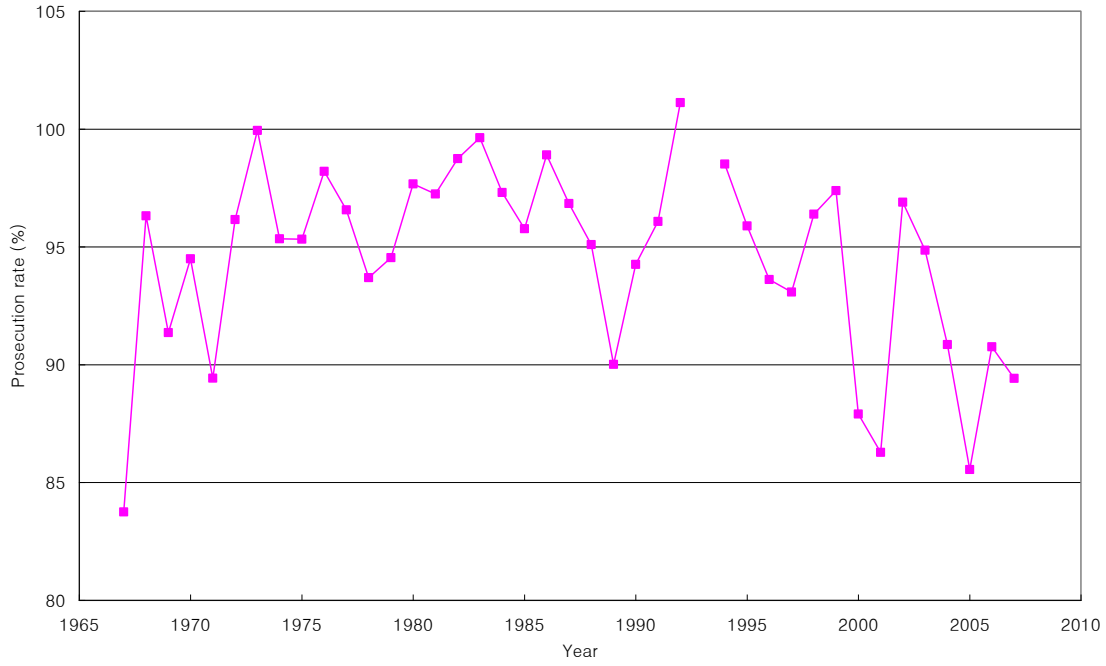


(B) Assistant employees per prosecutor and real expenditure

Note: $\text{Assistants per prosecutor} = \frac{\text{Total Prosecution employees} - \text{Prosecutors}}{\text{Prosecutors}}$

Source: The Law on Prosecutors, *Yearbook of Judicial Affairs*

Figure 4-4 Arrest rate of offenders, 1967-2007



Note: 1977-1997 – the average: 97.1 %, median 96.6%,

1998-2007 - the average: 91.1 %, median 90.8%.

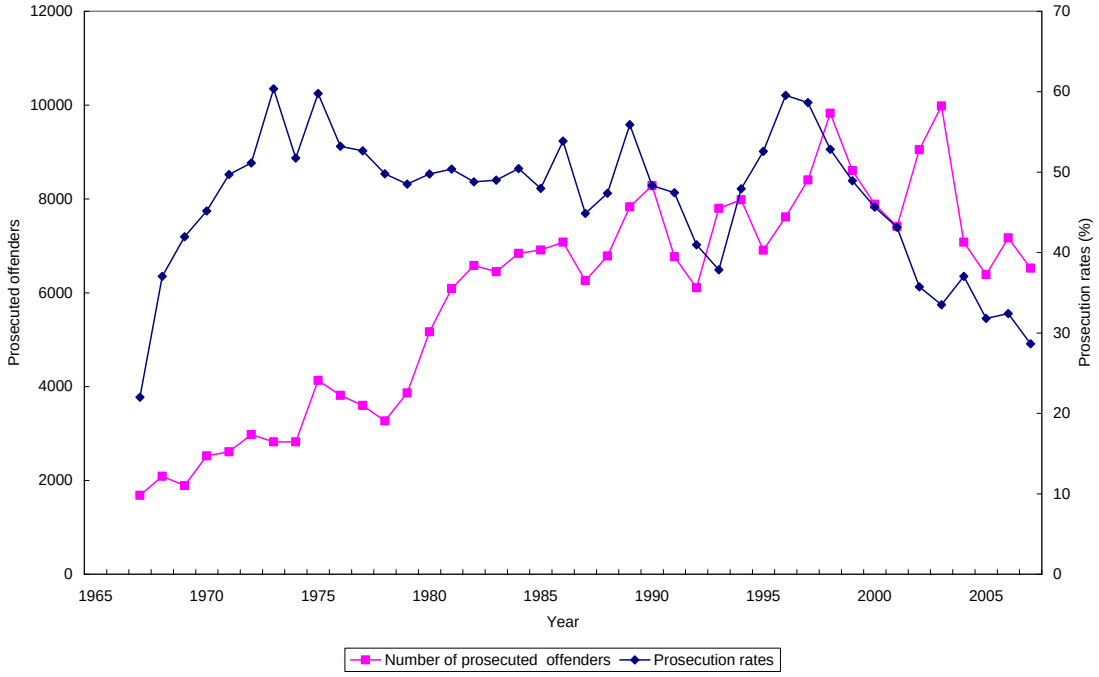
$$Arrest\,Rates = \frac{Arrested\,cases}{\mathrm{Re}\,ported\,cases}$$

We excluded the arrest rate in 1993 because the number is 115%

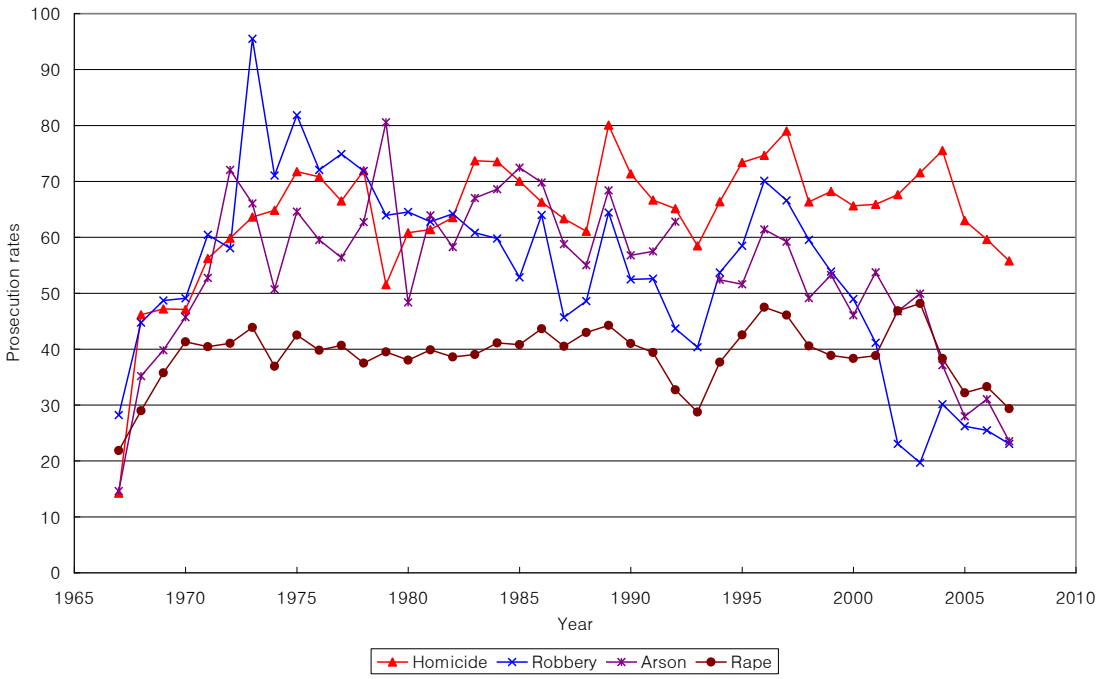
Source: *Criminal Analysis*

Figure 4-5 Prosecution rates and the number of people who are prosecuted, 1967-2007

(A) All crimes



(B) Prosecution rates by crime category

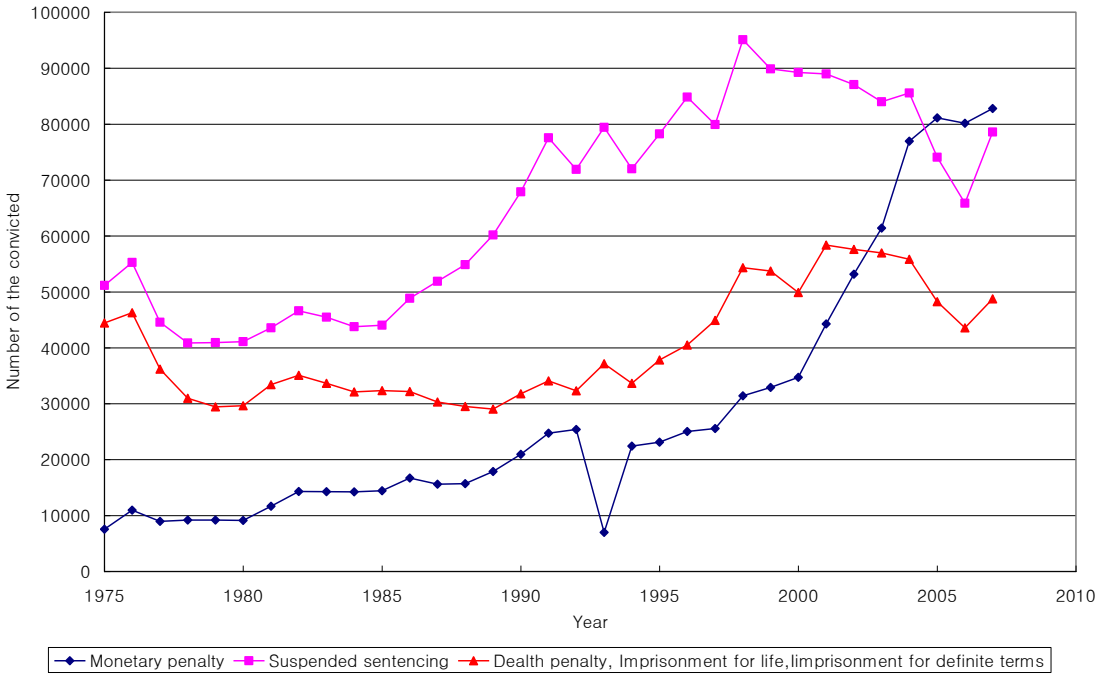


Notes: Prosecution rate = Number of prosecuted offenders/ Number of arrested offenders

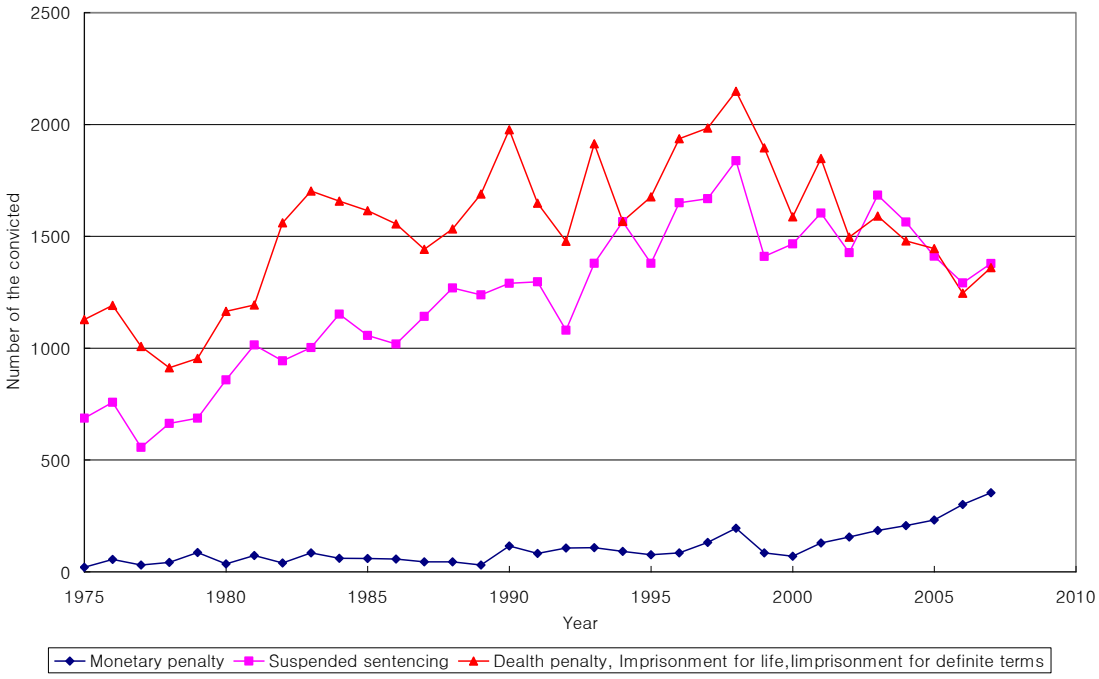
Source: *Criminal Analysis*

Figure 4-6 Sentencing: imprisonment, suspended sentencing, monetary penalty

(A) Criminal offense

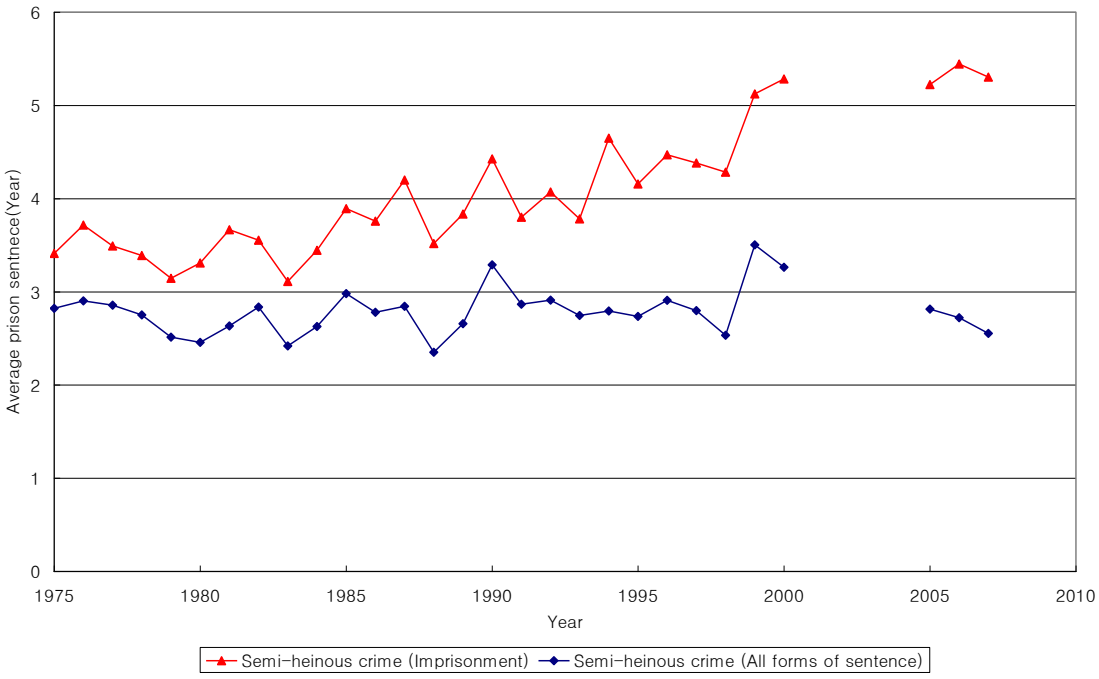


(B) Semi-heinous crimes



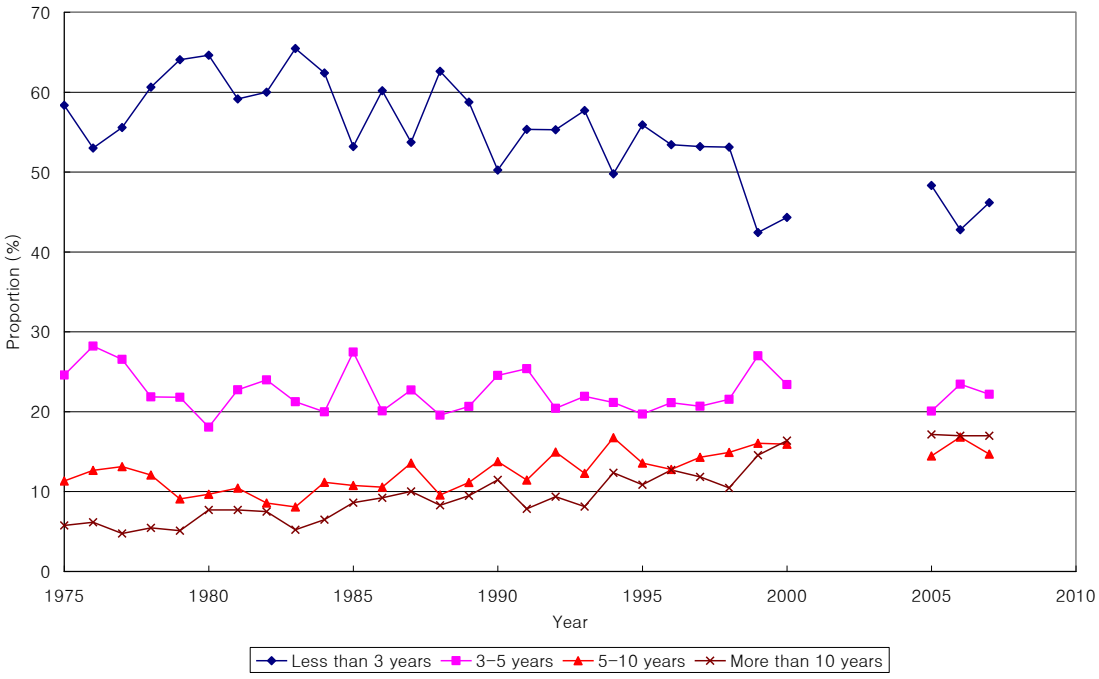
Source: *Criminal Analysis*

Figure 4-7 Sentencing of semi-heinous crimes



Source: *Yearbook of Judicial Affairs, Yearbook of Judicature*

Figure 4-8 Proportion of each sentence length at the first criminal trials

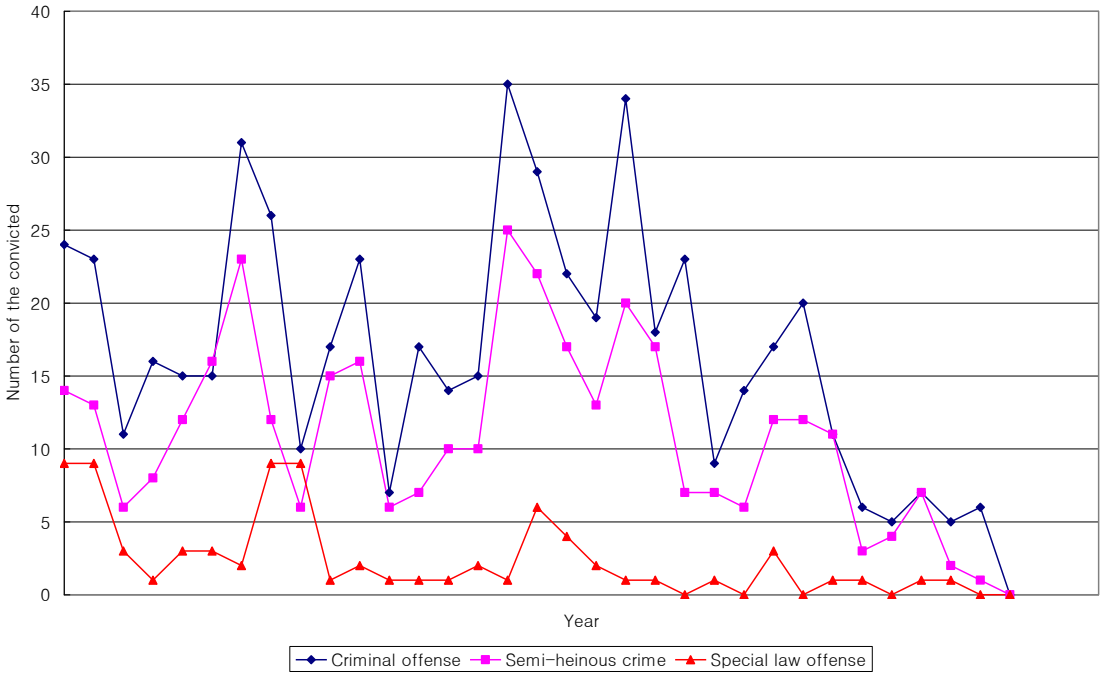


Notes: Number of cases sentenced to “Less than 3 years” is the sum of “Less than 1 year” and “Less than 3 years”

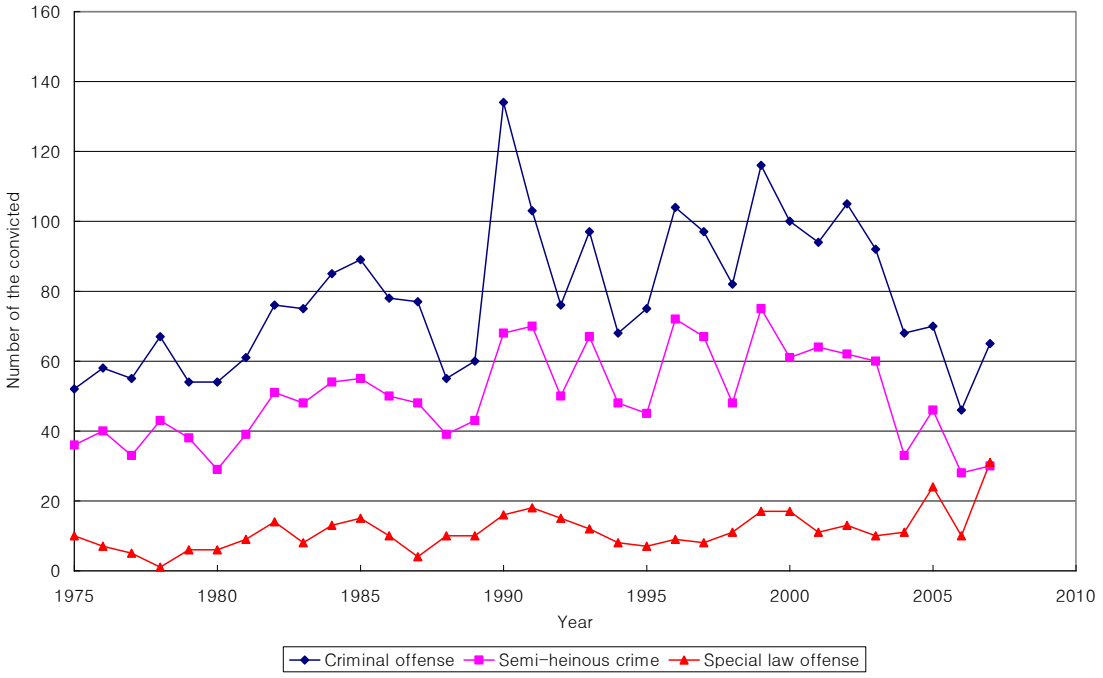
Source: *Yearbook of Judicature*

Figure 4-9 Number of cases sentenced to imprisonment for life and death penalty, 1975-2007

(A) Death penalty



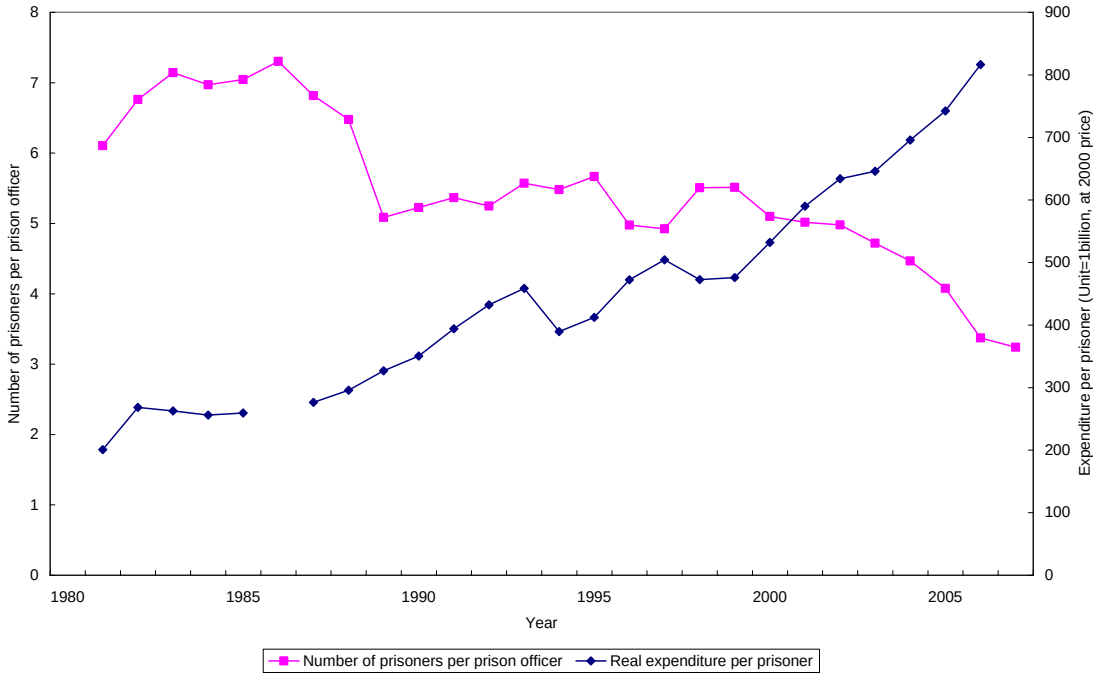
(B) Imprisonment for life



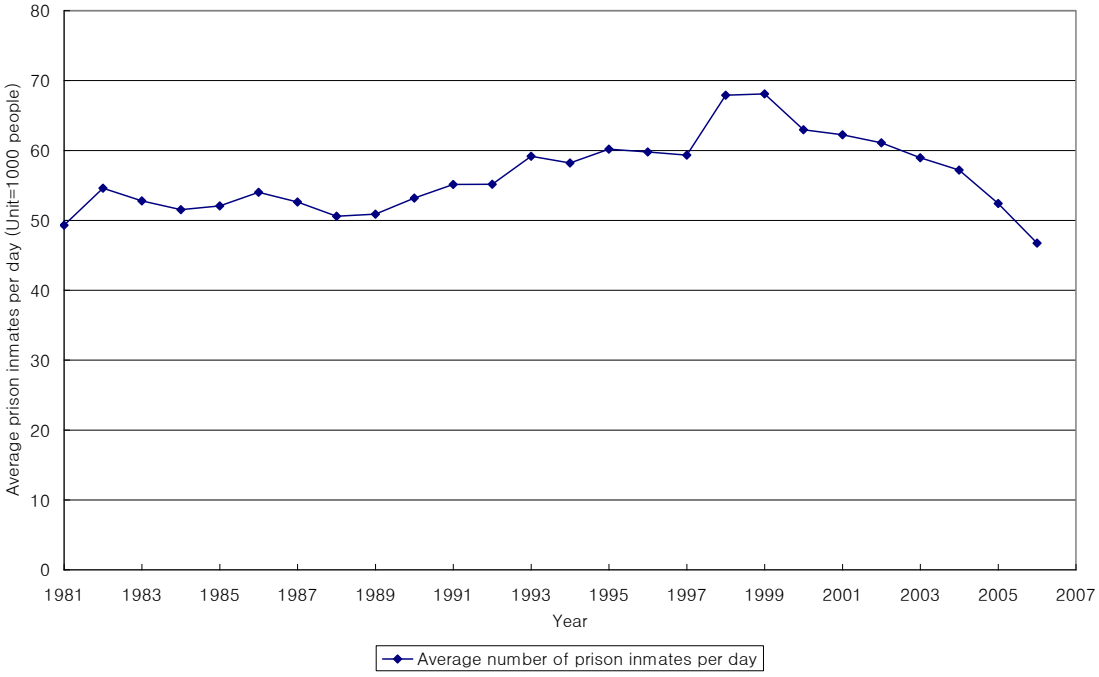
Source: *Yearbook of Judicial Affairs, Yearbook of Judicature*

Figure 4-10 The number of prisoners and resource input, 1981-2006

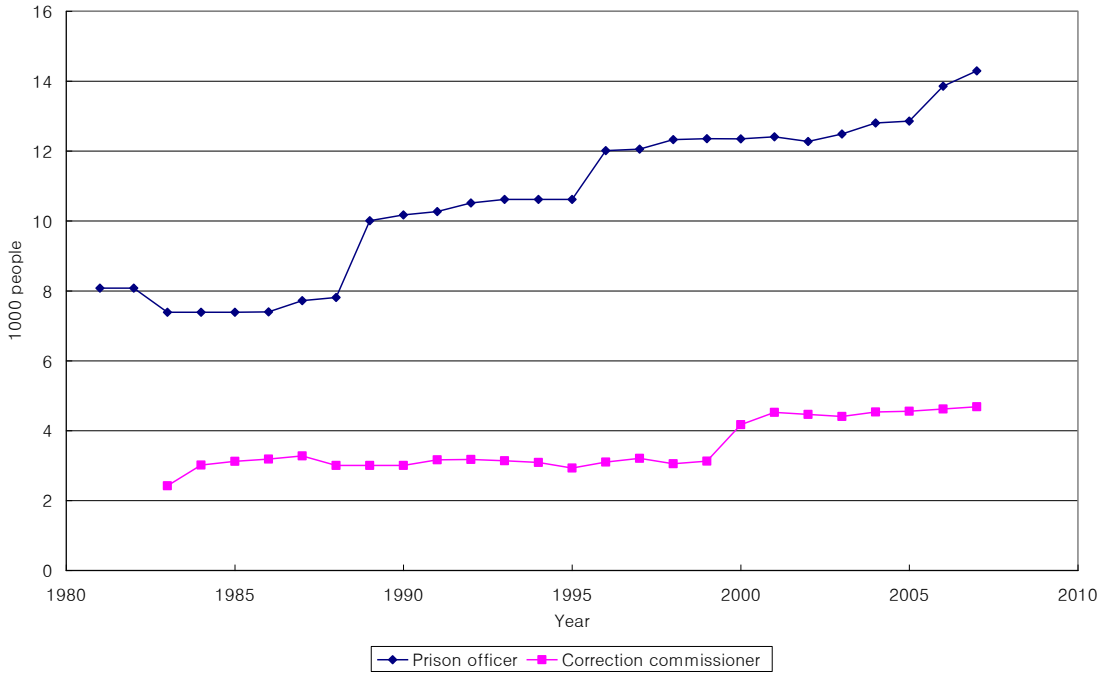
(A) The number of prisoners per prison officer and the real expenditure per prisoner



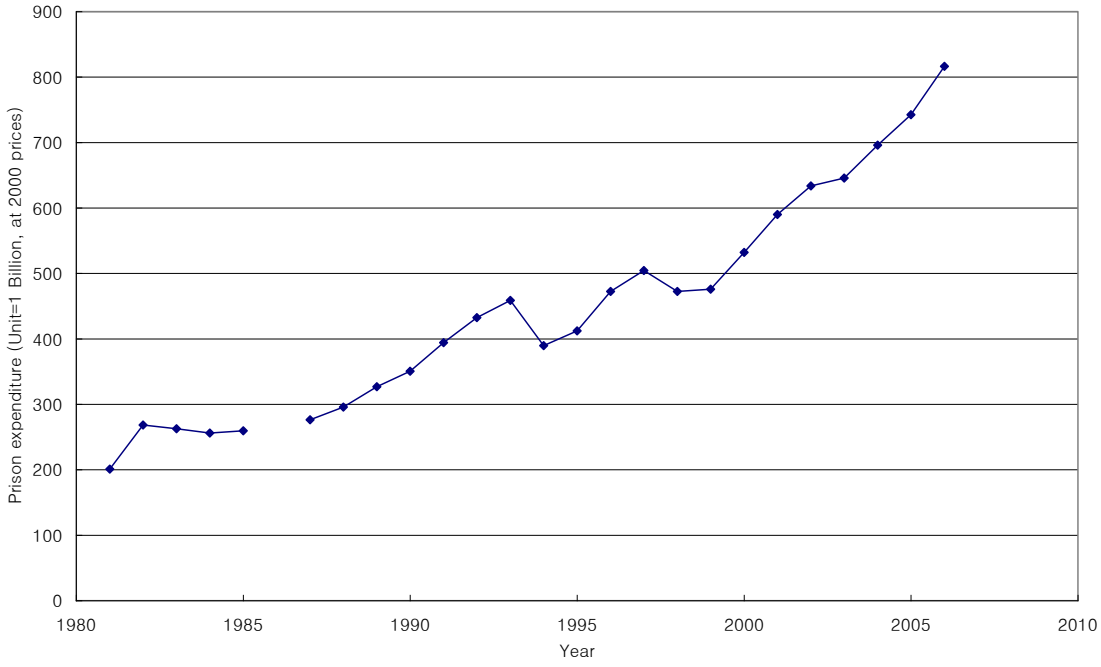
(B) Average number of prison inmates per day



(C) The number of human resource



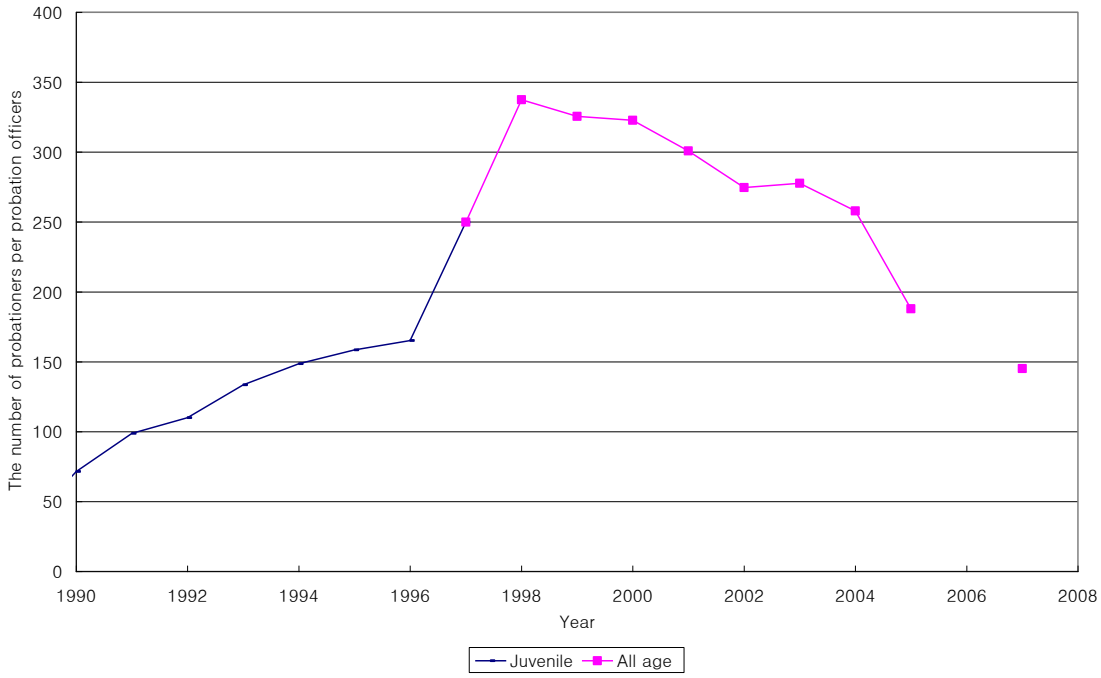
(D) Prison expenditure (At 2000 prices)



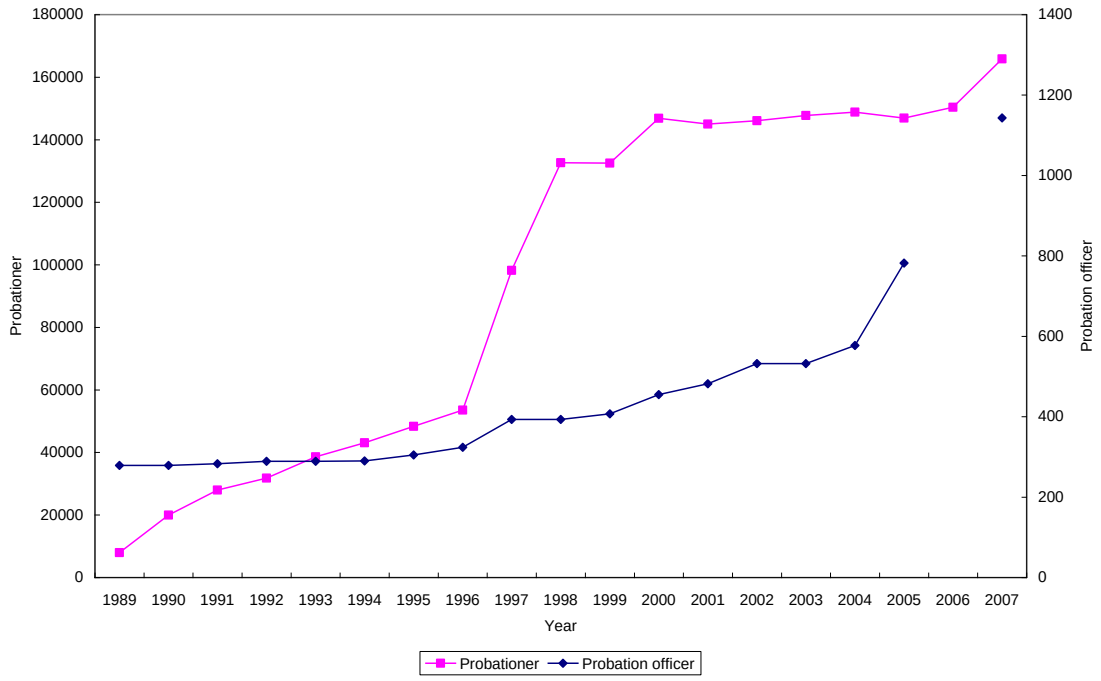
Source: *Yearbook of Judicial Affairs*

Figure 4-11 The number of probationers and resource input

(A) The number of probationers per probation officers

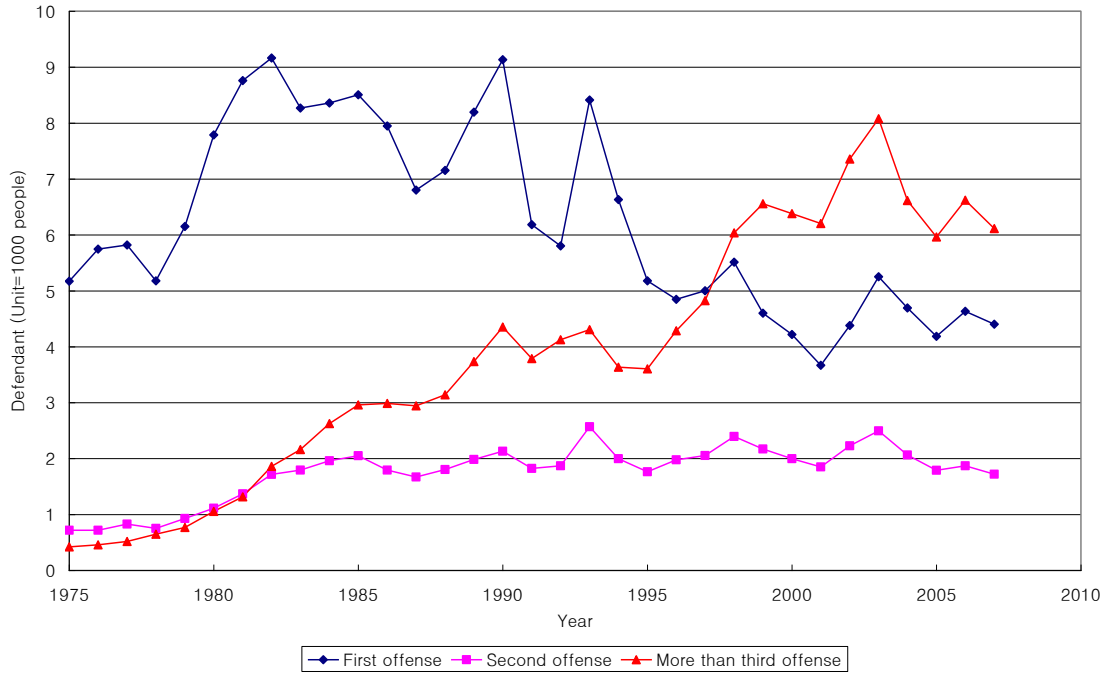


(B) Government workforce in probation and probationers



Source: *Yearbook of Judicial Affairs*

Figure 4-12 Repeat offenders among felony criminals, 1975-2007



Source: *Criminal Analysis*

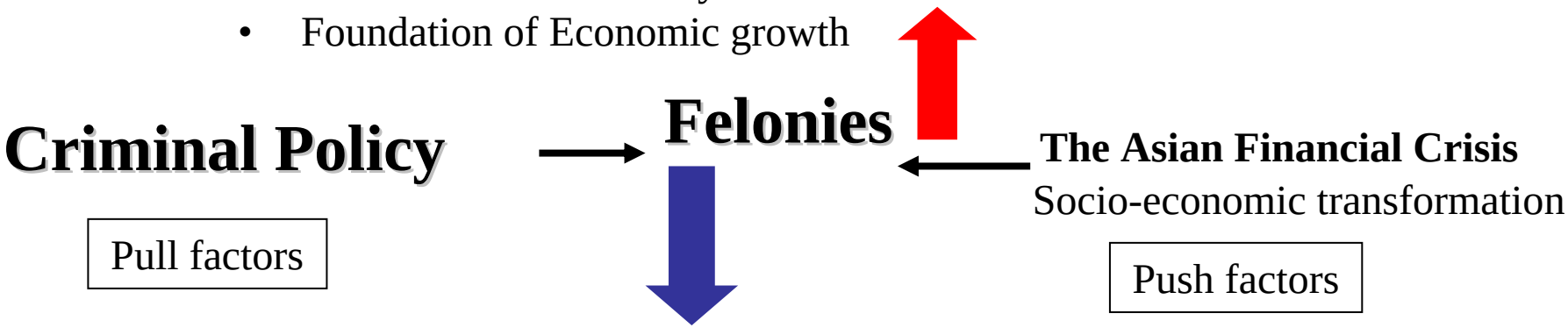
Growth of Felonies after the 1997 Financial Crisis in Korea

Duol Kim

Jee Eun Kim

I. Introduction

- Indicator of social safety
- Foundation of Economic growth

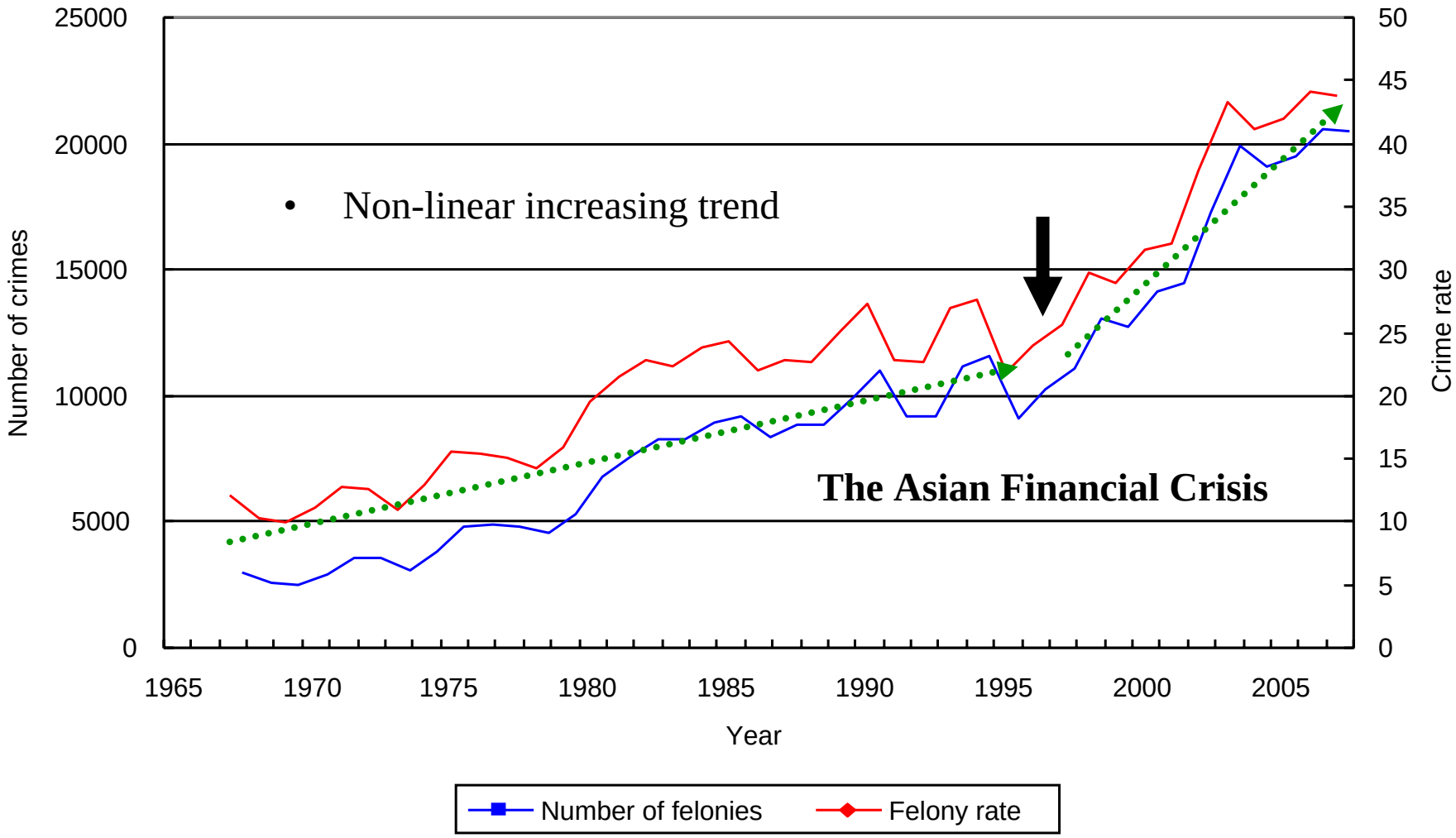


1. Policing
2. Sentencing
3. Correction

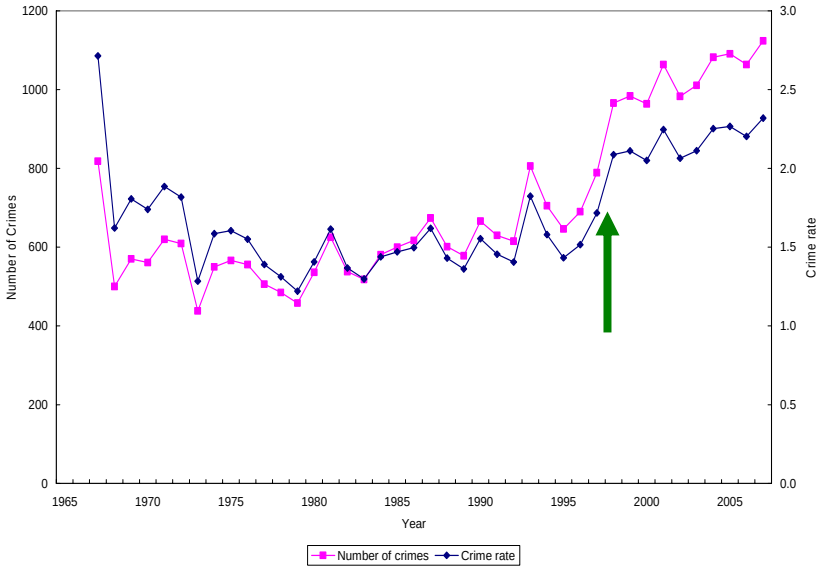
→ Resource Investment

→ Policy Effectiveness

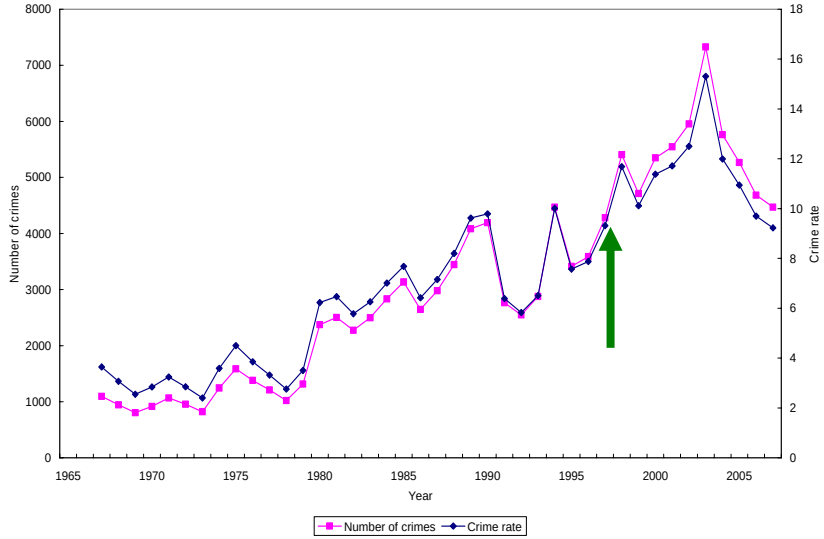
II. Trend of Felony



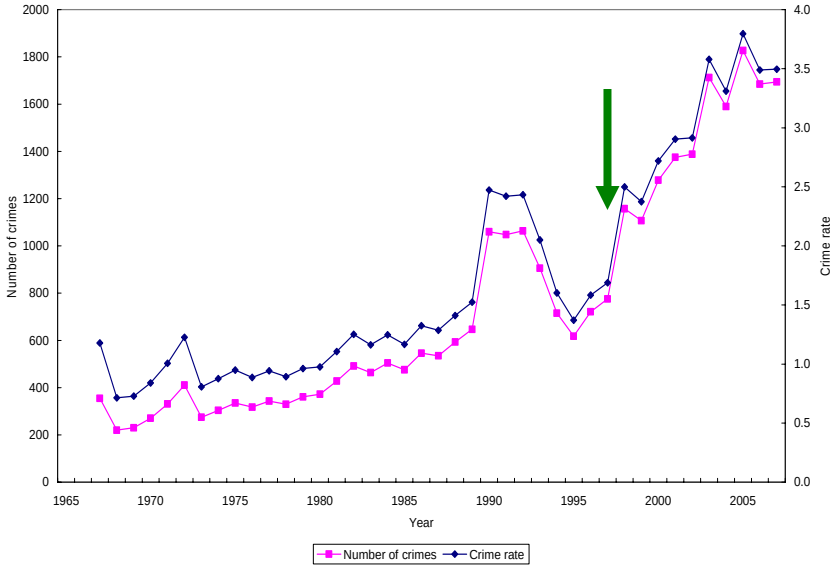
Source: The Supreme Public Prosecutor's Office, *The Criminal Analysis*



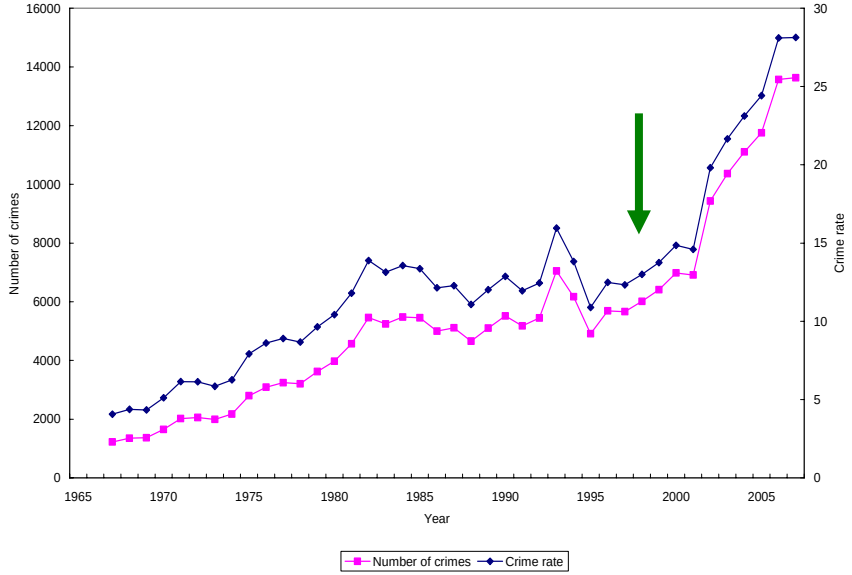
Homicide



Robbery



Arson



Rape

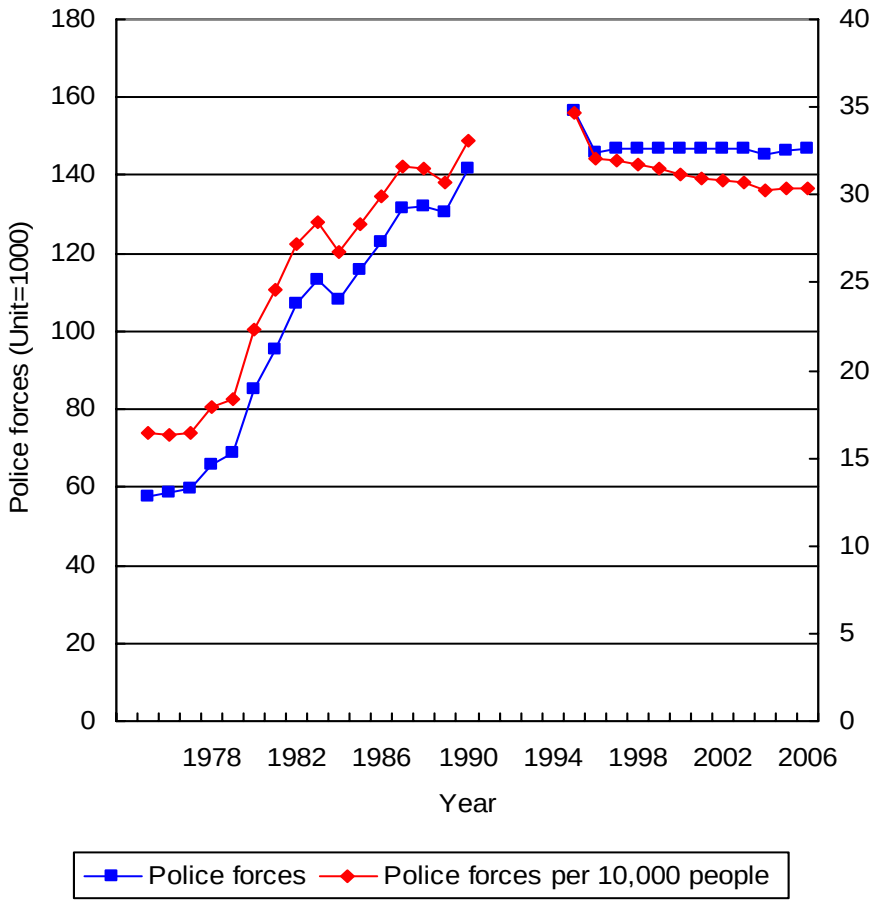
Source: The Supreme Public Prosecutor's Office, *The Criminal Analysis*

III. Criminal Deterrence Policy

Policy Measures	Policy Instruments	Intermediate Variables	Policy Goal
Policing	Police Forces and Expenditure	Arrest Rate	Reduce the number of crime & crime rates Public Security
	Prosecutor workforce and expenditure	Prosecution Rate	
Sentencing	Prosecutor's demanded sentence		
	Sentence by the courts		
Correction	Workforce in Prison & Probation	Repeat Offense Rates	
	Expenditure in Prison & Probation		

(1) Policing : Police

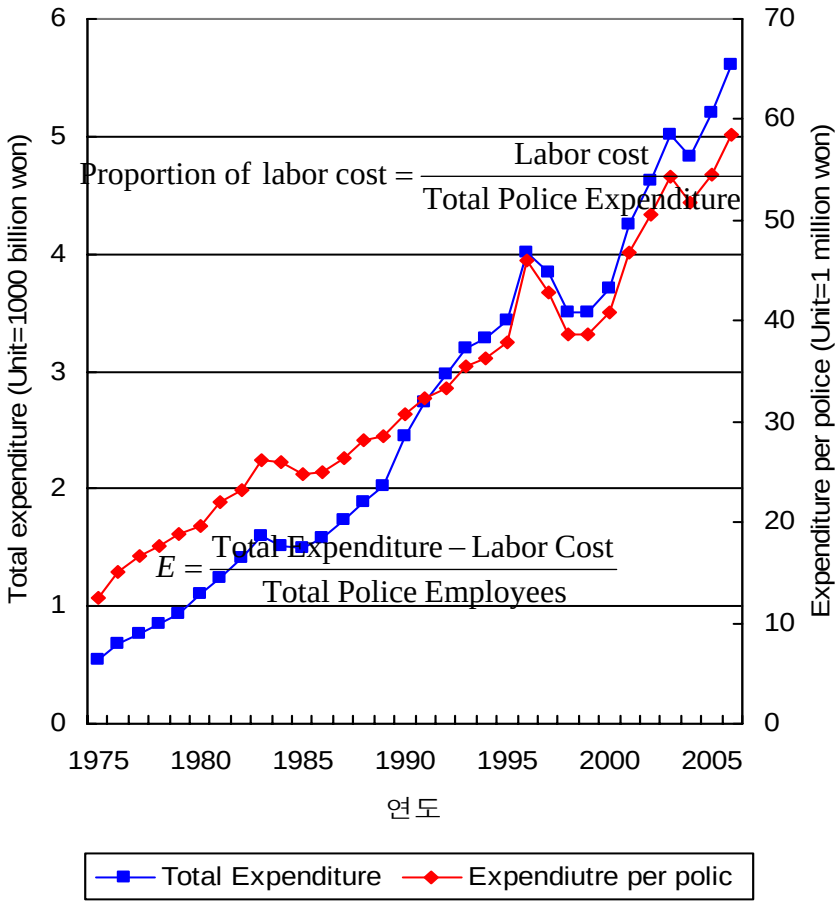
Police, 1975-2006



Source: *The Whitepaper of Police*, *Statistical Yearbook of Police*

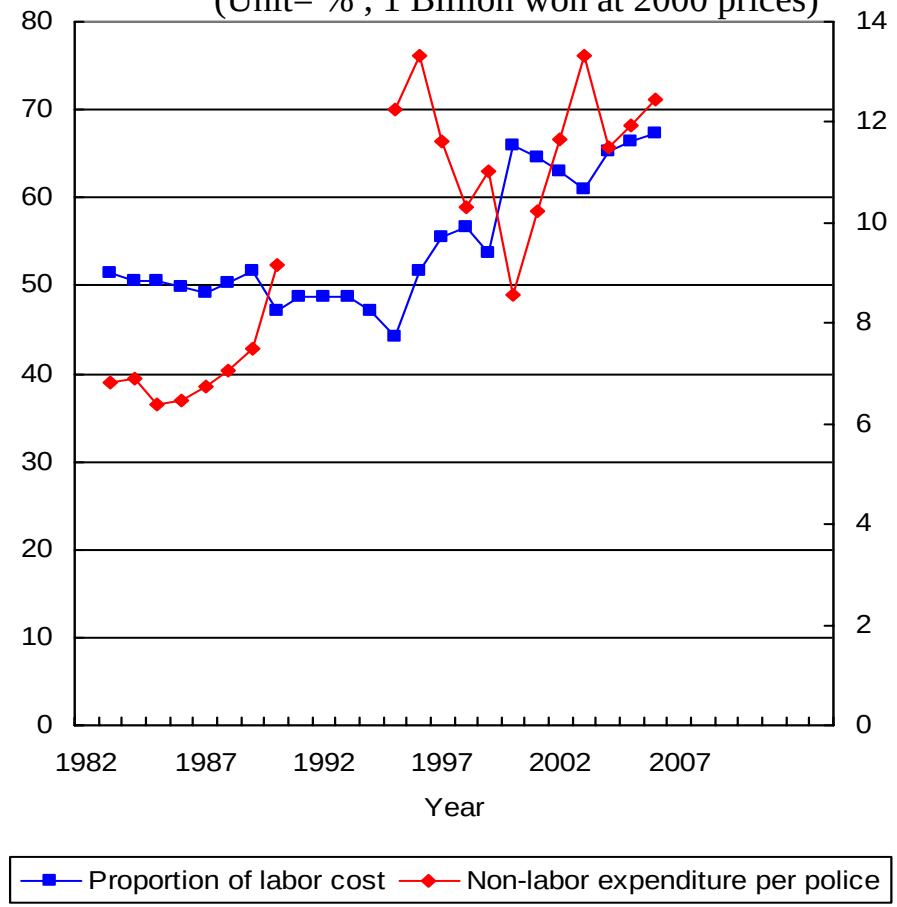
(1) Policing : Police

Police Expenditure, 1975-2006



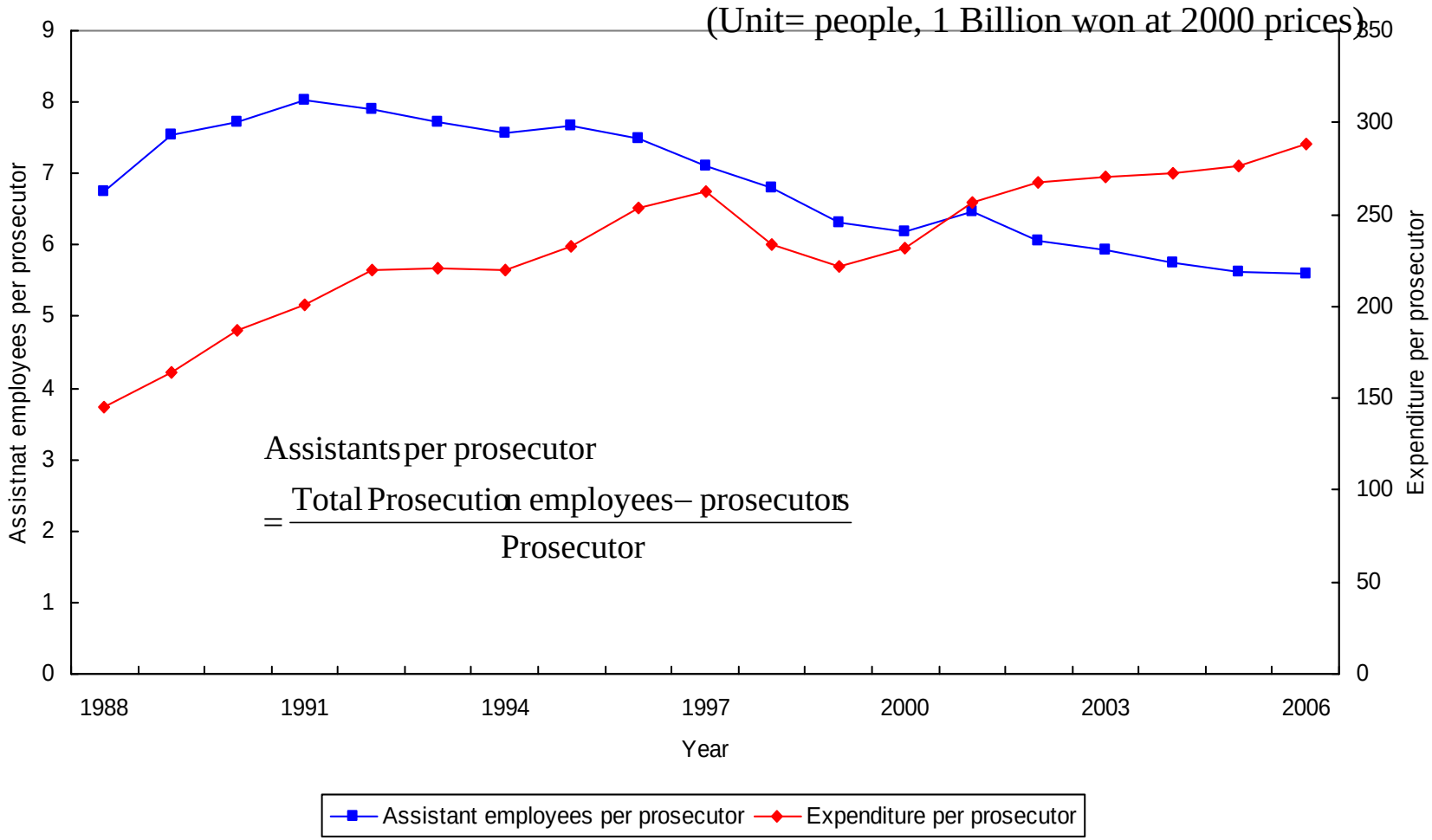
Proportion of labor cost in police expenditure and Expenditure per police in non-labor cost , 1982-2007

(Unit= % , 1 Billion won at 2000 prices)



Source: *The Whitepaper of Police*, *Statistical Yearbook of Police*

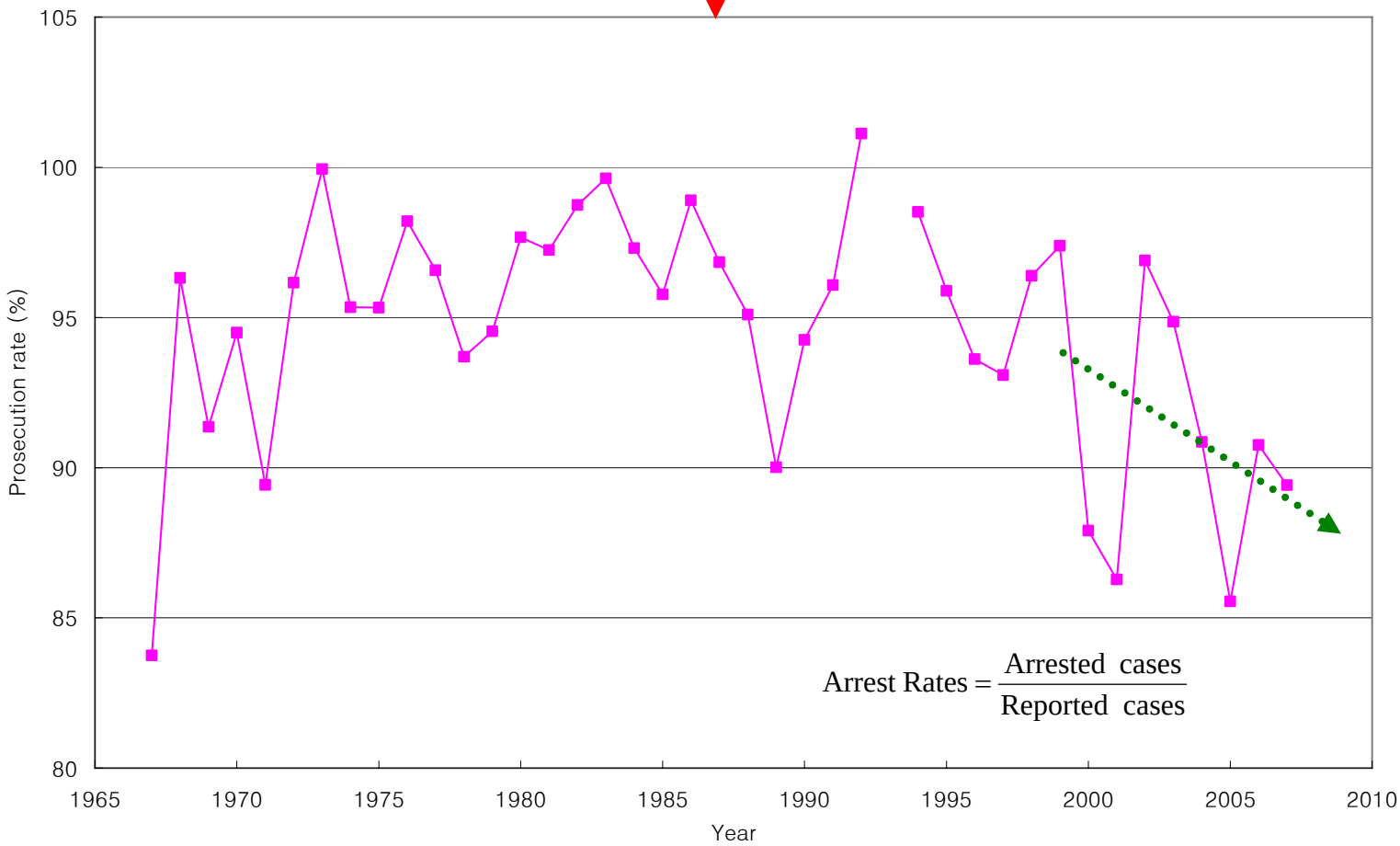
(1) Policing : The Prosecution office



Source: *The Yearbook of Judiccatre*

(1) Policing

1) Arrest rate of offenders, 1967-2007



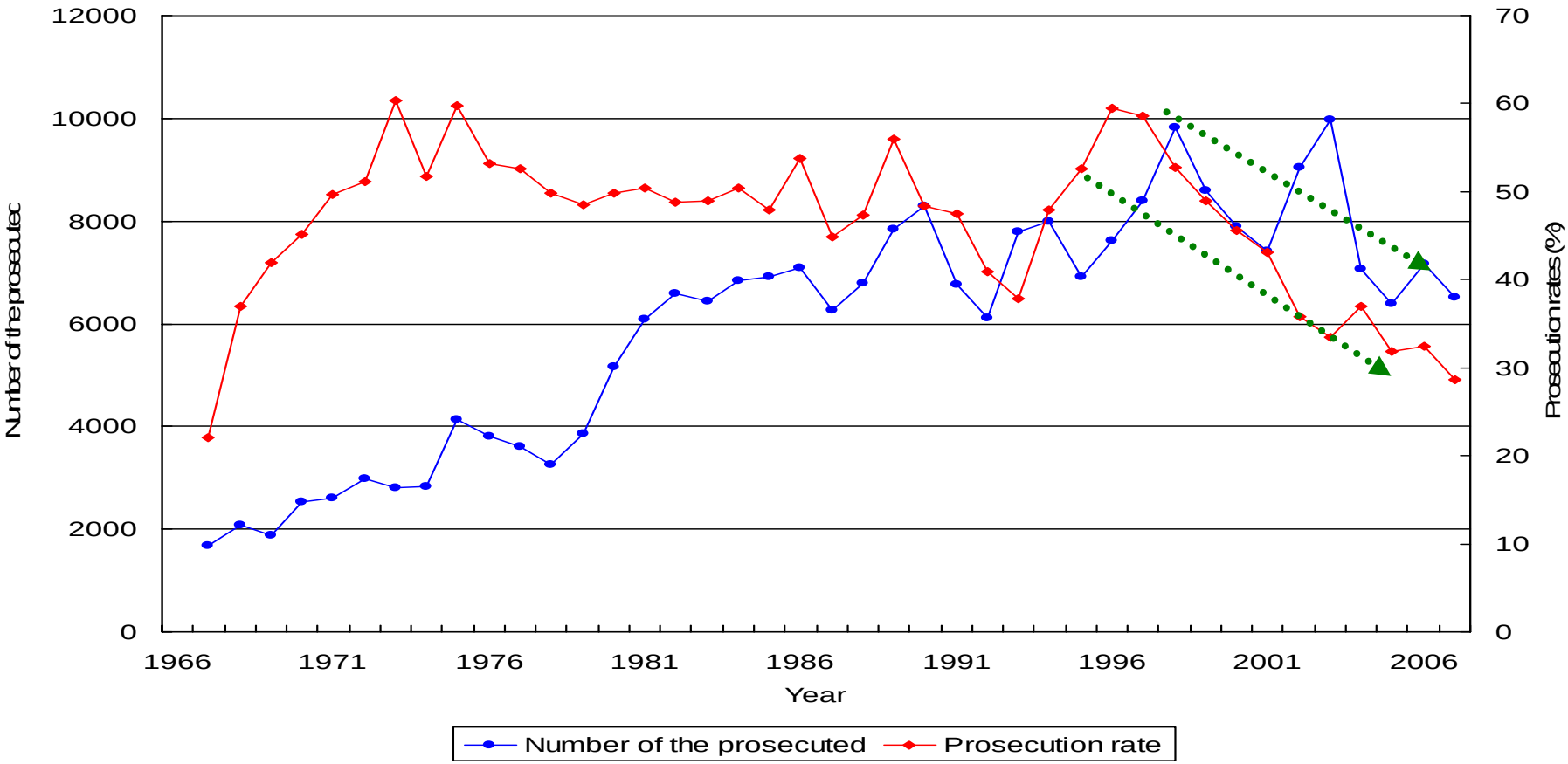
Source: The Supreme Public Prosecutor's Office, *The Criminal Analysis*

(1) Policing

2) Number of the prosecuted

Prosecution rate, 1967-2007

$$\text{Prosecution rate} = \frac{\text{Number of prosecuted offenders}}{\text{Number of arrested offenders}}$$



Source: The Supreme Public Prosecutor's Office, *The Criminal Analysis*

III. Criminal Deterrence Policy

Policy Measures	Policy Instruments	Intermediate Variables	Policy Goal
Policing	Police Forces and Expenditure	Arrest Rates	Reduce the number of crime & crime rates
	Prosecutor Workforce and Expenditure	Prosecution rates	
Sentencing	Prosecutor's demanded sentence	Average Sentence	
	Sentence by the courts		
Correction	Workforce in Prison & Probation	Repeat Offense Rates	
	Expenditure in Prison & Probation		

(2) Sentencing

- Average length of Sentence

$$AS_t = \frac{\sum_{i=1}^{N_t} \delta_{it}}{N_t}$$

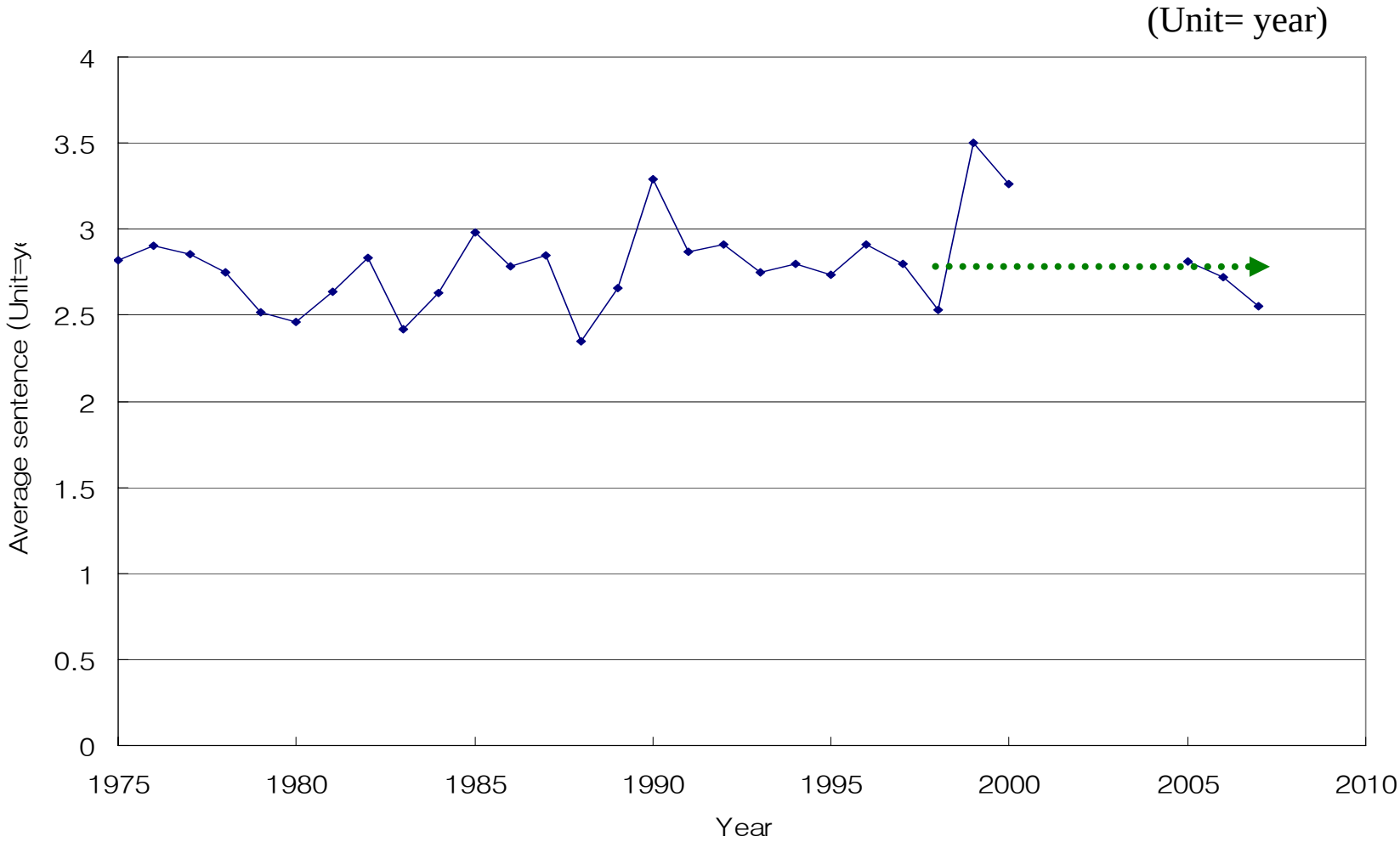
δ_{it} : The length of sentence for defendant i

N_t : The number of defendants at the first trial at year t

$$H_0: \quad AS_{before\,1997} \geq AS_{after\,1997}$$

(2) Sentencing

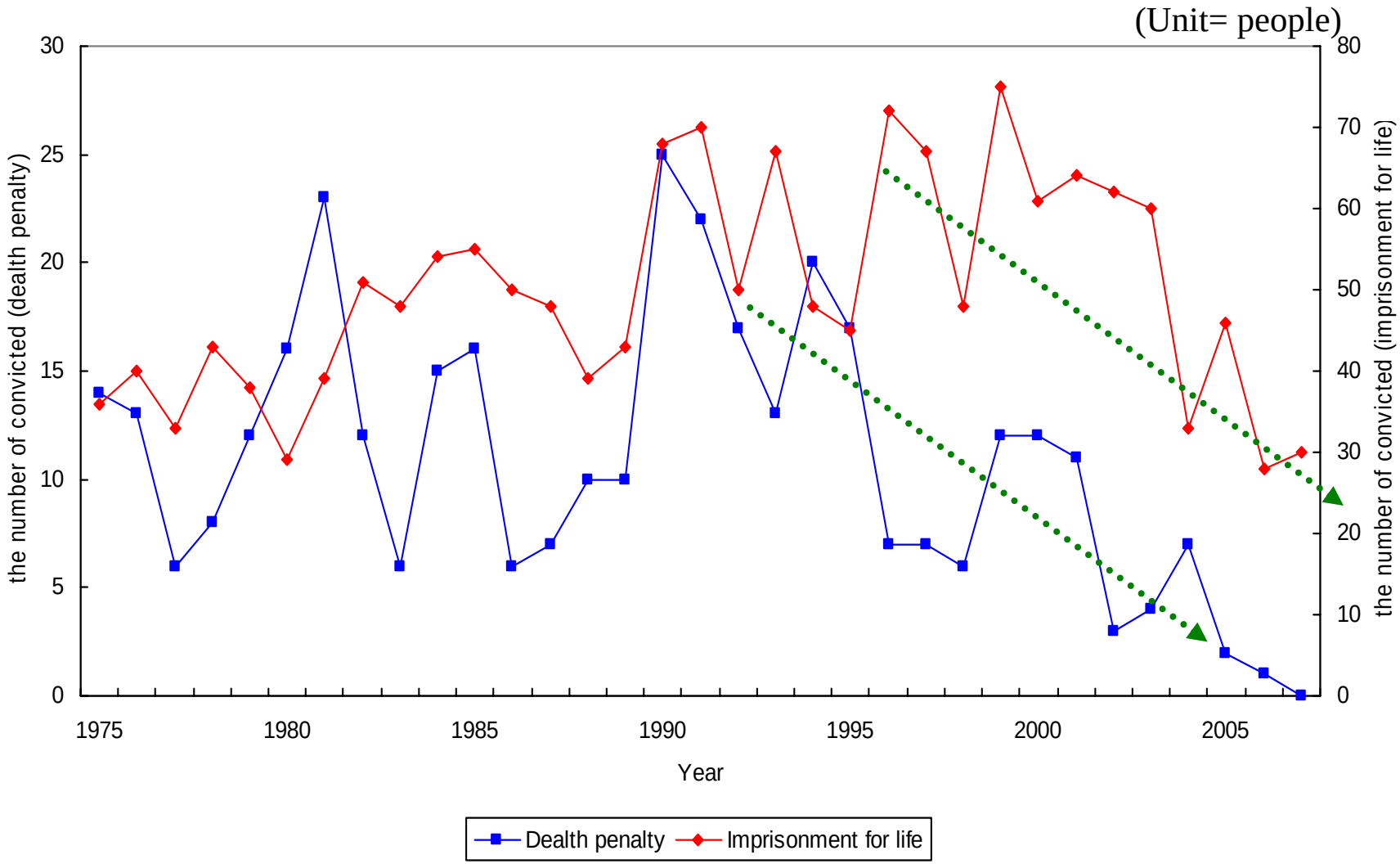
Average Sentence of felonies



Source: *The Yearbook of Judicature, Yearbook of Judicial Affairs*

(2) Sentencing

Number of cases sentenced to imprisonment for life and death penalty, 1975-2007



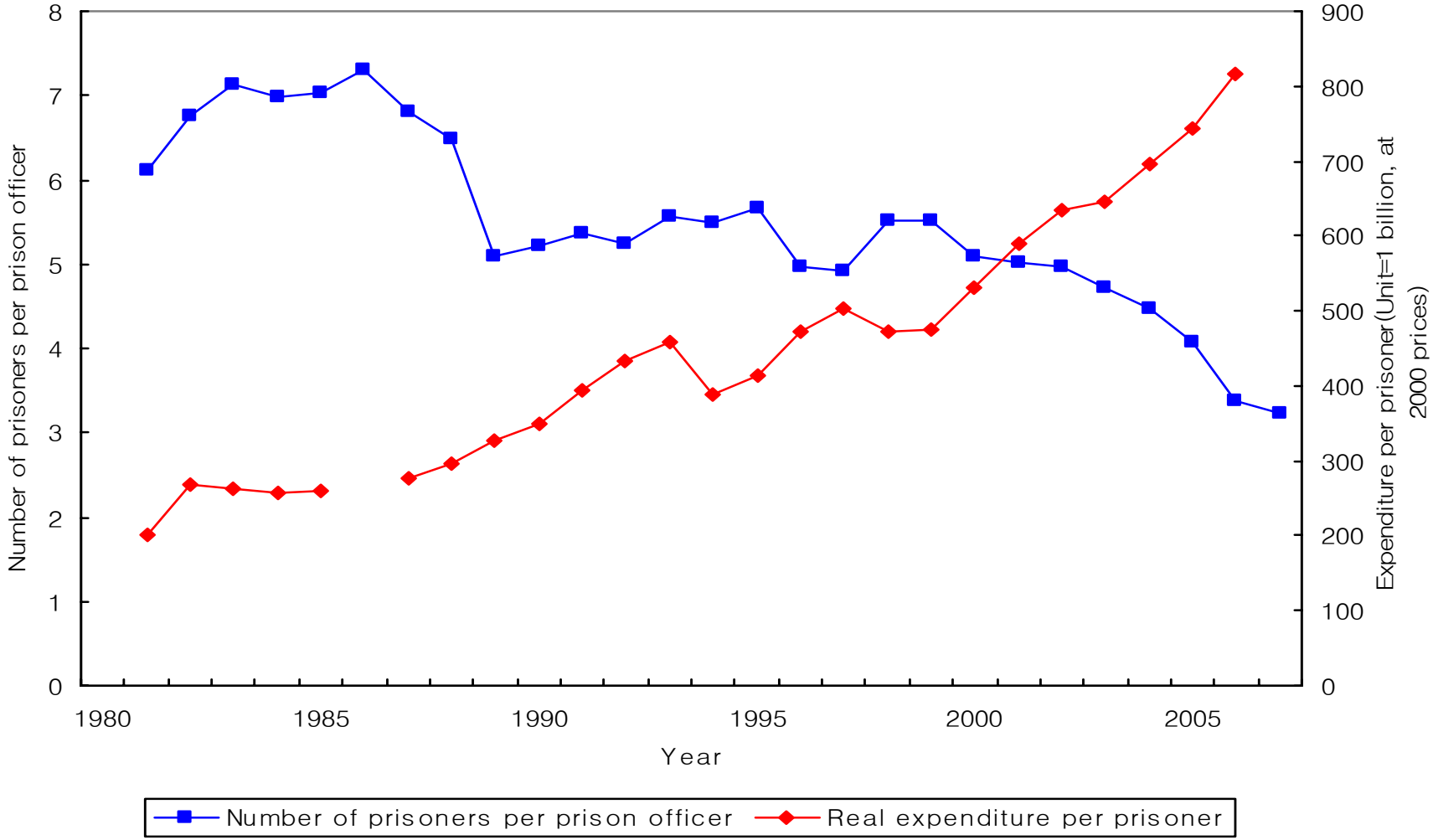
Source: *The Yearbook of Judicature, Yearbook of Judicial Affairs*

III. Criminal Deterrence Policy

Policy Measures	Policy Instruments	Intermediate Variables	Policy Goal
Policing	Police Forces and Expenditure	Arrest Rates	Reduce the number of crime & crime rates
	Prosecutor Workforce and Expenditure	Prosecution rates	
Sentencing	Prosecutor's demanded sentence		
	Sentence by the courts		
Correction ↗	**Workforce in Prison & Probation**	**Repeat Offense** →	↗
Correction ↘	**Expenditure in Prison & Probation** →		

(3) Correction - Prison

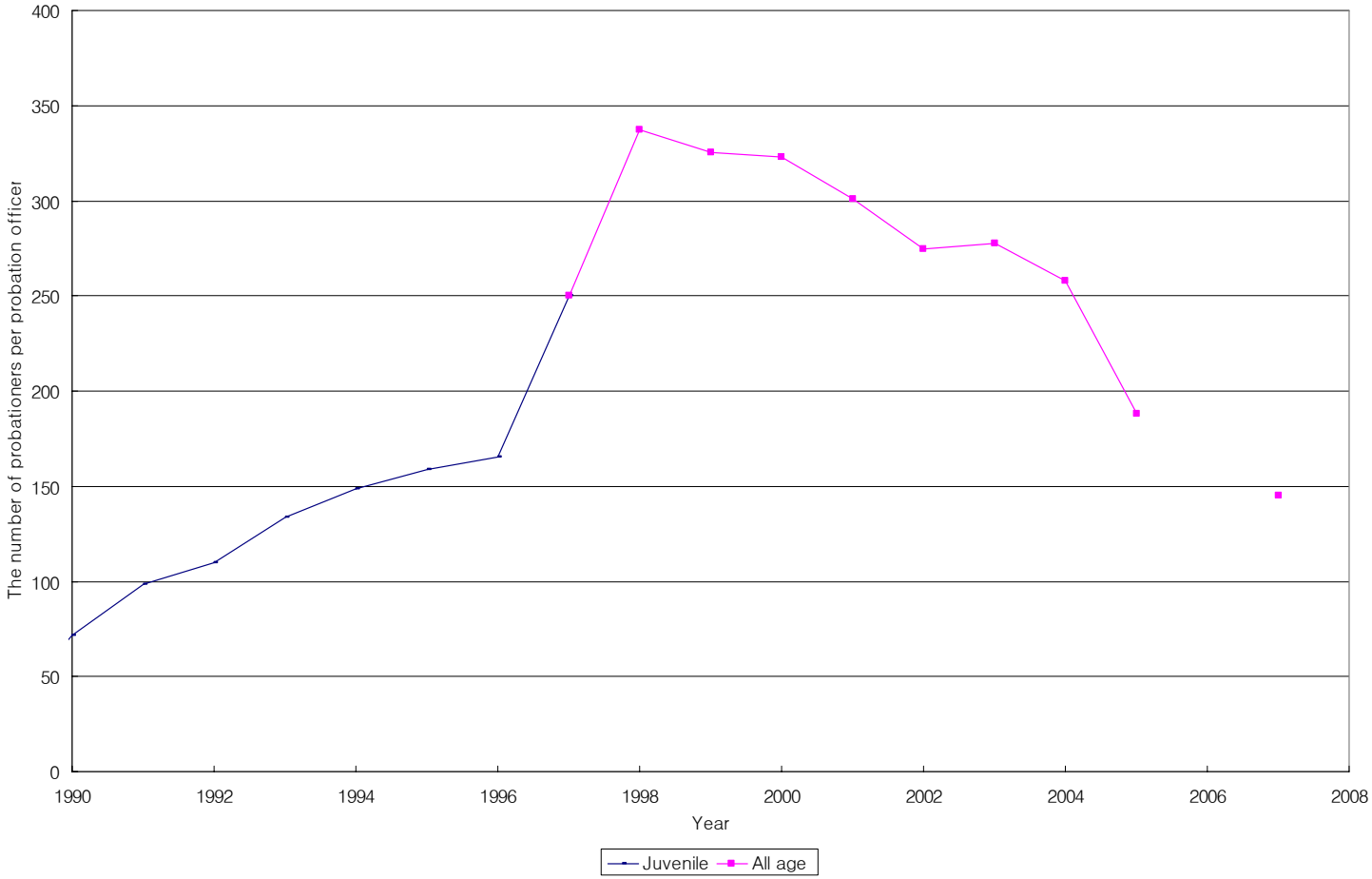
The number of prisoners per prison officer and the real expenditure per prisoner



Source: *The Yearbook of Judicature*

(3) Correction - Probation

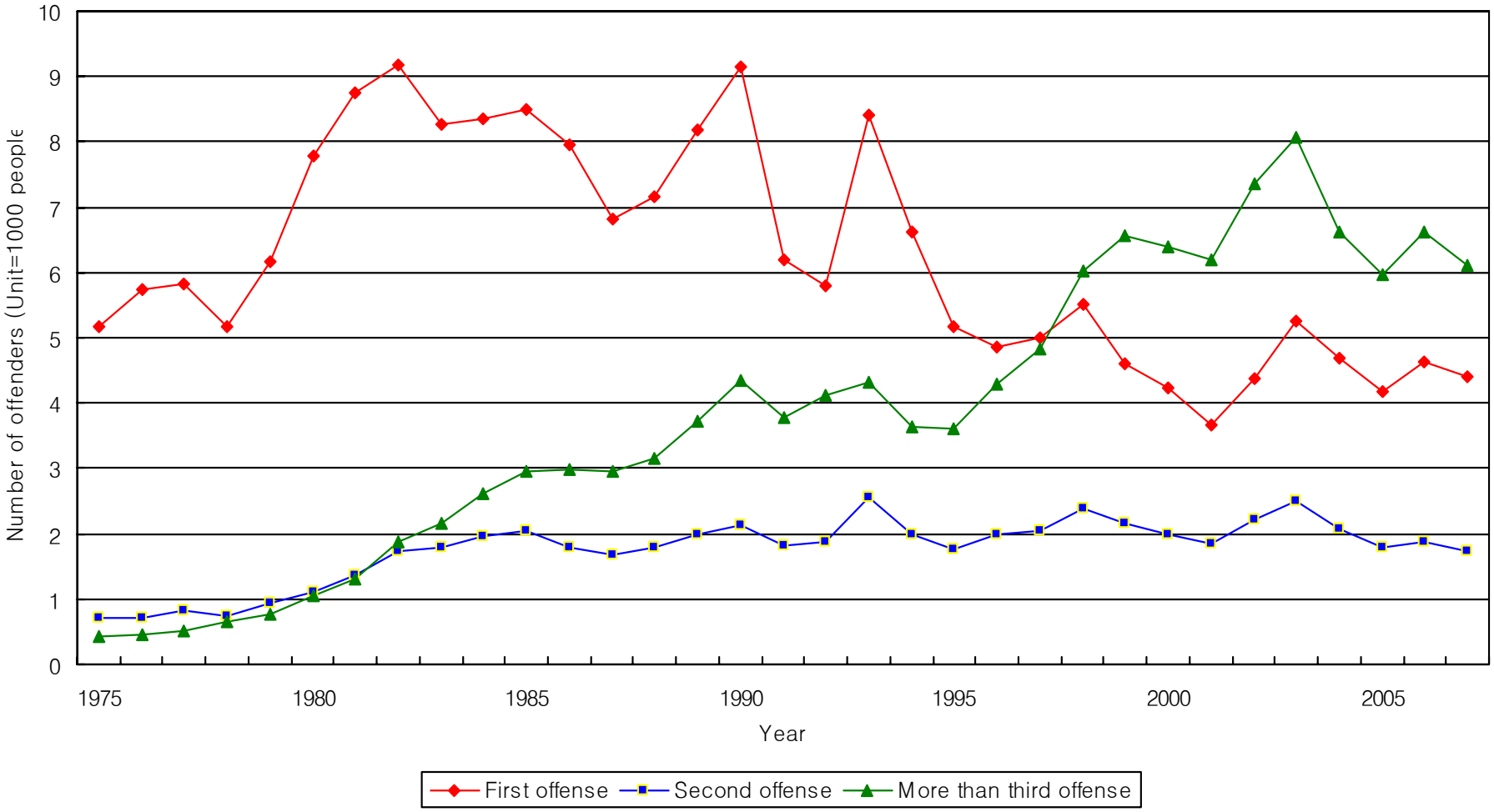
The number of probationers per probation officers



Source: *The Yearbook of Judicature*

(3) Correction

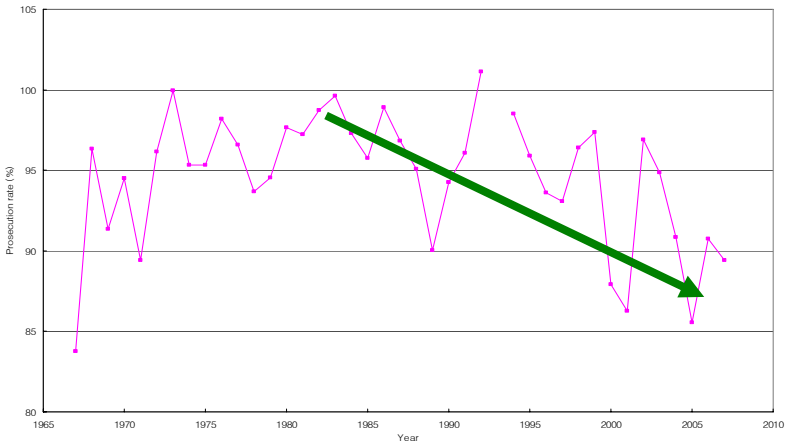
Repeat offenders among felony criminals, 1975-2007



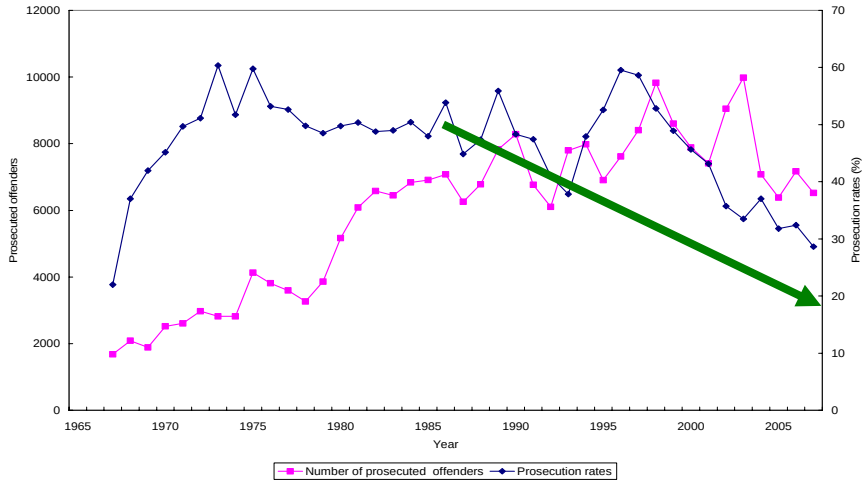
Source: The Supreme Public Prosecutor's Office, *The Criminal Analysis*

(4) Summary: Felonies ↑

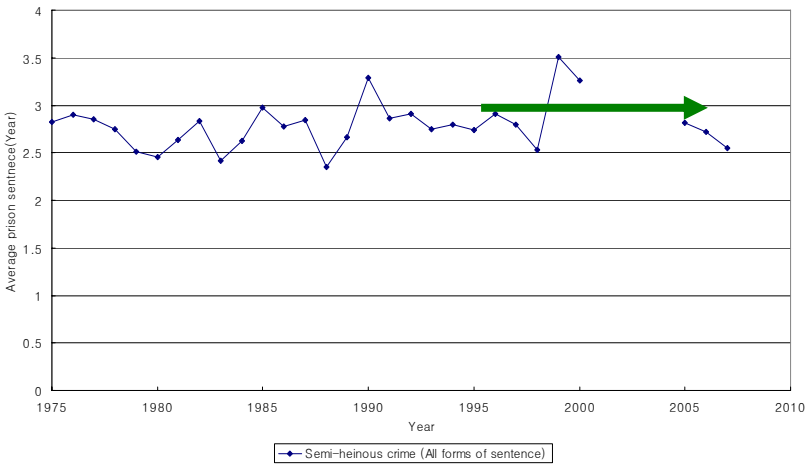
1) Arrest rate



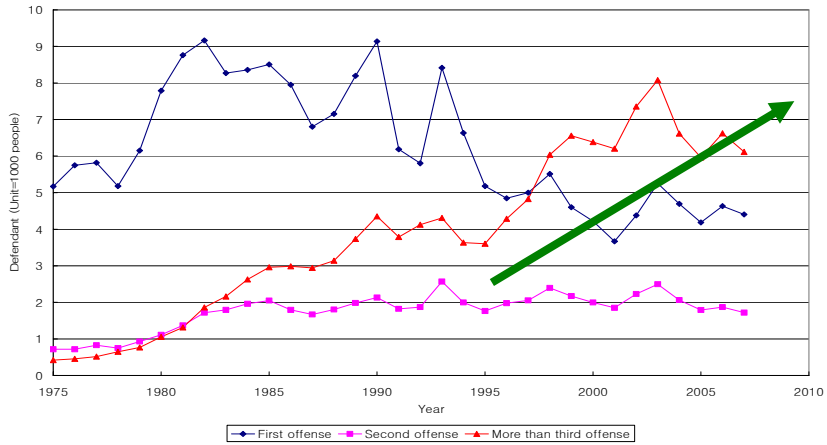
2) Prosecution rate



3) Average length of sentence



4) Proportion of repeat offense



V. Conclusion

An unavoidable outcome of the crisis?

or

Policy failures?

- Policy priority
  : Economic recovery > Social safety → Resource Investment ↓
- Coordination Failure

* Policy Implication

- Increase the effectiveness of policy
- Invest more resources into said policies
- Institutional mechanisms that foster policy coordination