# The Implementation and Distribution of Tax Expenditures: A Case Study of Retirement Saving Incentives in Thailand

Chatpong Watanajiraj\*

### Abstract

Tax incentives can be perceived as a policy tool to encourage targeted citizens to exhibit desired behavior in exchange for the benefits of tax reduction. Such practice, commonly referred to as tax expenditure, costs the government in terms of forgone tax revenue. The research suggests that tax expenditure policy should be used with caution. Since the policy is not attractive to non-taxpayers, implementation may be derailed if the proportion of taxpayers is too small compared with the target. Using the private sector relieves the government from administrative tasks. However, policymakers should be aware that the private sector may not always commit itself to policy objectives. The targeted citizens may be discouraged from joining the program if they have insufficient savings or prefer other tax-privileged programs. In addition, tax benefits are claimed mainly by high-income groups owning to the nature of the progressive tax system, rather than to differences in saving capability.

**Keywords:** Tax expenditures, policy implementation, retirement savings

<sup>\*</sup>Graduate School of Public Administration, National Institute of Development Administration (NIDA). E-mail: chatpong.w@gmail.com

# การดำเนินนโยบายและการกระจายประโยชน์ของรายจ่ายภาษี: กรณีศึกษาจากมาตรการจูงใจสำหรับการออมเพื่อเกษียณใน ประเทศไทย

ฉัตรพงศ์ วัฒนจิรัฏฐ์\*

# บทคัดย่อ

งานวิจัยได้ศึกษาถึงปัจจัยที่มีผลต่อการดำเนินนโยบายรายจ่ายภาษี (tax expenditure policy) โดยใช้แบบแผนการออมเพื่อเกษียณในประเทศไทยเป็นกรณีศึกษา นโยบายที่นำมา วิเคราะห์นี้มีลักษณะสำคัญคือ การจูงใจให้เกิดพฤติกรรมการออมด้วยกลไกลดหย่อนภาษี การ มีสถาบันการเงินภาคเอกชนเป็นผู้ผลักดันนโยบาย และรวมทั้งการให้ประชาชนเข้าร่วมโครงการ โดยสมัครใจ ผลการศึกษาพบว่า การดำเนินนโยบายจะล้มเหลวหากกลุ่มเป้าหมายจำนวนมาก ไม่ได้เป็นผู้เสียภาษี หรือหากผู้กำหนดนโยบายขาดความเข้าใจว่า ใครคือกลุ่มเป้าหมายที่แท้จริง ภาคเอกชนมีส่วนช่วยผลักดันนโยบายเนื่องจากได้ประโยชน์ทางธุรกิจ และผู้กำหนดนโยบายยัง ได้ประโยชน์จากทรัพยากรเงินทุน ทักษะ และเครือข่ายสาขาของภาคเอกชน อย่างไรก็ดี องค์กร เหล่านี้ขาดความทุ่มเทเพื่อให้บรรลุเป้าหมายนโยบายเพราะให้ความสำคัญกับผลทางธุรกิจเป็น หลัก ส่วนประชาชนกลุ่มเป้าหมายอาจมองข้ามสิทธิประโยชน์ทางภาษี เนื่องจากไม่มีเงินออม เพียงพอหรือให้ความสำคัญกับมาตรการลดหย่อนภาษีรายการอื่นมากกว่า ส่วนในเรื่องการศึกษา การกระจายประโยชน์นั้น พบว่ากลุ่มผู้มีรายได้สูงจะได้รับประโยชน์ทางภาษีมากกว่ากลุ่มผู้มีรายได้น้อย เป็นผลจากฐานภาษีในระดับสูงช่วยให้ลดภาษีได้มาก

คำสำคัญ: รายจ่ายภาษี การนำนโยบายไปปฏิบัติ การออมเพื่อเกษียณ

<sup>\*</sup>คณะรัฐประศาสนศาสตร์ สถาบันบัณฑิตพัฒนบริหารศาสตร์ อีเมล: chatpong.w@gmail.com

## Introduction

Tax expenditures are the losses of tax revenue attributable to special privileges according to tax laws (Surrey, 1970). Instead of, conventionally, collecting taxes first and redistributing later, it short-circuits both transactions by taking a net amount of taxes and leaves the same impact on the bottom line of fiscal accounting (Weinberg, 1987). This perspective highlights the fact that public expenditures consist of a direct approach through budget appropriation, and an indirect approach through tax codes. Tax expenditure policy, hence, should receive interest in research in a way similar to that of direct spending policy.

One interesting area of analysis is policy implementation. Academic effort has been spent on explaining the practical difficulties when putting policy into practice. A number of variables have been listed along with the top-down school, which views successful implementation as pursuing the policy guidelines set by top-level policymakers (Pressman & Wildavsky, 1973; Van Meter & Van Horn, 1975; Sabatier & Mazmanian, 1980), and the bottom-up school, which highlights the roles of street-level bureaucrats that use discretion to formulate practices that suit local variations (Palumbo & Harder, 1981; Rawson, 1981; Hjern, 1982).

However, the implementation landscape changes when the private sector is able to replace government agencies as front-line implementers. This occurs when the policy concerns household's saving stimulation. Financial intermediaries like commercial banks or fund management companies become an apparent choice because of their expertise in financial products, and a readily-available branch network that supports the scheme expansion. As a result, implementation success depends chiefly on how these private business organizations support the policy.

The landscape becomes even more complicated when the policy allows the target citizens to voluntarily participate in the program. This especially occurs in the case of tax expenditure policy where policymakers try to encourage desirable behavior through tax incentives. The target citizens, then, shift their status from being policy recipients to policy participants. Hence, the outcome of the policy is determined by the extent to which the target citizens respond to the program. Overall, this creates a challenge in policy implementation. With the changes towards more involvement of private sector and target citizens, policymakers should understand the factors impeding and facilitating this alternative form of governance.

Another interesting area of analysis is the distribution of tax benefits. Generally, social spending is regarded as an important tool for mitigating poverty and income inequality (Buracom, 2011: 114). According to this rationale, tax expenditure policy associated with retirement savings should gear tax incentives towards low-income workers that lack a saving motivation rather than those that those already have. As a result, the policy will fulfill its social development objective when the disadvantaged group participates and earns tax benefits from the program.

However, the consequences of tax expenditure policy seem to contradict what it should be. The policy is heavily criticized for violating the equity principle of taxation by discriminating non-taxpayers vis-à-vis taxpayers, and the poor vis-à-vis the wealthy (Surrey, 1970; Howard, 1999). In general, needy citizens earn income below the tax threshold such that they incur no tax liabilities, while some may have inadequate savings to make up for long-term well-being. As a result, a tax-privileged program such as retirement savings yields benefits to the wealthier group of citizens (Toder et al., 2011).

This incidence suggests that tax expenditure policy contains a dilemma. While pursuing the policy definitely raises concerns over income inequity, neglecting such a measure could impede the government's ability to alleviate social problems. Policymakers, hence, should gain insights into how the tax benefits of a specific program are distributed, and also the factors that influence the level of benefits in order to make an informed judgment to modify the program.

The research uses tax expenditure policy for retirement savings in Thailand as a case study. The country has adopted two voluntary saving schemes: the provident fund (PVD), and the retirement mutual fund (RMF). Both programs face the problem of poor coverage. In 2014, the PVD reached 2.82 million members or 28.11 percent of formal workers, while the RMF covered around 0.40 million accounts or only 1.07 percent of the total workforce.

This seems to go against the benign growth rate of contributions over the past ten years. Contribution to the PVD doubled from 25.6 billion baht in 2005 to 48.3 billion baht in 2014, an average growth of 10.2 percent per annum. Similarly, the contributions to the RMF increased from 5.3 to 10.3 billion baht, a 10.4 percent average growth rate during the same period.

The abovementioned situation makes the retirement savings in Thailand an interesting case for the analysis of tax expenditure policy. Poor coverage may indicate the issues that went wrong for policy implementation over the past twenty years of the PVD and fifteen years of the RMF. Further, the favorable increase in contributions may imply that tax benefits may be concentrated on a certain group of citizens.

The research has two objectives:

- 1) To understand the factors affecting the implementation of tax expenditure policy, namely, tax liability reduction mechanism, governance context where the private sector becomes a front-line implementer, and behavioral response of the target citizens.
- 2) To assess the extent to which tax benefits are allocated among different groups, and to examine the magnitude of marginal tax rate and saving ability in providing tax benefits

## Background of Retirement Saving Schemes in Thailand

#### The Provident Fund

The PVD is an employer-sponsored scheme enacted by the Provident Fund Act in 1987. The fund was set up with a voluntary agreement between employees and their employer. Being a fund member, an employee agrees to make monthly savings, so-called contributions, ranging from two to fifteen percent of his/her wages. The Act requires the employer to sponsor the fund by contributing additional money into the respective employee's account at the rate equal to or higher than the employee's saving.<sup>1</sup>

In order to encourage the scheme coverage, tax incentives have been provided since 1995. Fund members are allowed to reduce their taxable income (tax deductions) by the actual amount of contributions up to fifteen percent of salary, but not exceeding 500,000 baht in a respective tax year. The investment earnings accumulated in the fund and profits from the sales of investment are tax exempted when the proceeds are withdrawn at the age of fifty-five years or above.

For nearly thirty years, the scheme has been plagued with low coverage problem. The target population in the case of the PVD is employees in the private sector (formal workers) that earn wages from employers, but excluding government officials. At the end of 2014, the number of fund members was 2.82 million persons. Compared with the number of formal workers registered with the Social Security Office, the PVD covered 28.11 percent of the target (Table 1).

Table 1. Coverage of the Provident Fund, 2010-2014

Coverage (million persons)	2010	2011	2012	2013	2014	
Provident fund members	2.24	2.49	2.62	2.70	2.82	
Insured persons	8.96	9.05	9.43	9.78	10.03	
Proportion (%)	25.06	27.48	27.75	27.60	28.11	

**Source:** Association of Investment Management Companies (2015a), Social Security Office (2015). Calculation was done by the author.

#### The Retirement Mutual Fund

The RMF is a specific type of mutual fund embedded with tax privileges and penalty measures. The Securities and Exchange Commission (SEC) and Revenue Department of Thailand have allowed for the establishment of the RMF since 2001 with an aim to promote retirement savings among the Thai workforce. Specifically, the RMF emerged to remedy the limitations of the PVD, which did not cover self-employed labor (informal workers), and formal workers whose employer did not provide them with the PVD. In addition, the RMF also satisfies the demand for retirement savings if the PVD members prefer to save more for retirement.

Contributions made into the RMF will deduct assessable income up to fifteen percent of the annual income, but not exceeding 500,000 baht. The investment returns accumulated in the fund and profits from sales of investment units at the age of fifty-five years or above are tax exempted.

There are a number of conditions with which taxpayers must comply. Participants are required to make continual savings by purchasing RMF units every year, at least three percent of the annual income. They must also retain the fund for five years before the first withdrawal is made. Violating these rules penalizes them by forcing them to return the tax benefits during the previous five tax years, and income taxes may be imposed upon the profit from sales of the RMF.

At the end of 2014, the number of RMF holders was around 410,000 accounts. The size was smaller than the PVD, although the RMF aimed to cover a broader group of both formal and informal workers. The scheme also failed to provide wide coverage, given that it penetrated only around 1.07 percent of the total labor force (Table 2).

Table 2. Coverage of the Retirement Mutual Fund, 2010-2014

Coverage (million persons)	2010	2011	2012	2013	2014
RMF accounts	0.24	0.29	0.33	0.33	0.41
Employed workforce	38.51	38.87	39.59	39.09	38.26
Proportion (%)	0.62	0.74	0.82	0.85	1.07

**Source:** Association of Investment Management Companies (2015b), National Statistical Office (2015). Calculation was done by the author.

## Literature Review

### Definitions of Tax Expenditure

The term tax expenditure originated with Stanley S. Surrey, during late 1960s, in an attempt to relate policy concerning tax liability reduction to a kind of public spending. In 1974, the U.S. Congressional Budget and Impoundment Control Act was enacted to promote the transparency in public spending by requesting the Treasury to estimate the size of tax losses as a part of annual budget review. According to the Act, tax expenditures are "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability" (Surrey & McDaniel, 1976: 683).

Apart from the losses in tax revenue, other definitions highlight the favoritism nature of tax expenditure policy. For instance, Bratic (2006) views tax expenditure policy as "an instrument the government uses to favor certain groups or categories

## Incentivization Mechanism of Tax Expenditure

Tax expenditure policy is generally used for incentivization purpose—to encourage the target citizens in taking a desirable course of action (Surrey, 1970: 711-713). Tax expenditure policy is seen as an appropriate tool in case of retirement savings stimulation since citizens are less likely to be aware of financial difficulties and lower quality of lives during retirement. To prevent this problem, the government attempts to encourage working-age citizens to begin saving while they can, hoping to create the perception that Phillip Cagan referred to as the recognition effect (Cagan, 1965 cited in Feldstein, 1974: 907).

Tax liabilities reduction can be viewed as compensation for the target citizens to commit money to a long-term period. This is because, in general, financial instruments like saving deposits, mutual funds, or equities can be converted into cash in just a few business days. Additional benefits are anticipated if their money must be locked up for years, possibly five to thirty, until retirement.

Tax benefits perform like an incremental return on a specific financial asset. For example, if an individual invests 10,000 baht to earn an interest income of five hundred baht for a one-year period without making losses to the principal amount, he/she will gain an investment return of five percent. Furthermore, if an individual is able to reduce his/her tax liabilities by two hundred baht, he/she will earn an additional two percent from the investment, making up a total return of seven percent.

The extent to which tax benefits translate into an incremental return depends on two factors—the marginal tax rate and the length of the holding period until retirement. Suppose an individual is charged a twenty percent marginal tax rate and he/she has twenty years of working until reaching an official age of retirement. Contributions that are made at a twenty percent marginal tax rate could be translated into an additional return of one percent per annum. This mechanism implies that tax benefits are more attractive to those with a higher marginal tax and a shorter time to retirement.

## Policy Implementation Theory

Implementation can be specifically defined based on perspectives. Top-down approach is based on the belief that centrally-located policymakers are capable of identifying problems and choosing appropriate strategies to deal with them. The policymakers, then, attempt to establish legislative structure to ensure that the policy guidelines are strictly followed. This perspective views implementation as the carrying out of a policy decision (Sabatier & Mazmanian, 1980: 540), or the process of interaction directed to achieve policy objectives (Pressman & Wildavsky, 1973: xvi; Van Meter & Van Horn, 1975: 447).

The first attempt to create an analytical framework for implementation was made by Van Meter and Van Horn (1975) with a model consisting of five explanatory variables. Policy standards and objectives must be clearly understandable to the implementers so that the operational officers are not wasting time in trying to translate policy into guidelines, or taking risk of misinterpretation. Resources are suggested to be adequate and available in a timely manner. Policy should be correctly communicated, while penalty mechanism should be enforced in order to promote compliance among the implementers. Implementing agencies must have organizational goals that align with policy objectives and possess an appropriate hierarchical structure. Individual implementers need to have the ability and willingness to handle tasks. Implementation success is also likely when the context lacks resistance from the public, when economic conditions are favorable, and when politics are supportive.

Another framework was developed by Sabatier and Mazmanian (1980) with a model that classified factors affecting the implementation into three categories: the tractability of the problem, the ability of the statute to structure the implementation process, and the variables outside the control of the statute. Tractability of the problem represents the nature of problems that a policy is expected to deal with. Since a policy aims to improve or change the behavior of target citizens, the problem would be controllable if the target recipients are concentrated in a specific area, have a similar behavioral response, and tend to obey the laws.

The authors also suggest that the policy must contain technical validity that it leads to an outcome preferred by policymakers. The financial budget should be adequate because it is used for administering the programs. Policymakers should also choose sympathetic agencies—new agencies created to serve the policy or existing ones that viewed the new mandate as a top priority—in order to carry out the policy. Lastly, the commitment among front-line implementing officials is a crucial factor. Implementation would be effective if the implementers attempt to pursue policy objectives rather than personal benefits, while they possess appropriate skills to perform the tasks.

The bottom-up approach, on the other hand, argues that implementation is not merely the carrying out of the policymakers' intent. Rather, it reflects the implementers' discretion to redefine policy objectives and, thus, change the way in which the policy is implemented. While the top-down school views that any actions that go against the guidelines are an implementation failure, the bottom-up school argues that such deviation is necessary because it is a desirable strategy that turns poorly-designed policy into something appropriate (Palumbo & Harder, 1981: xi).

The study of Tennessee Valley Authority suggested that implementers should be allowed to define their goals and select the means to achieve them (Rawson, 1981). The study of the Violent Crime Control and Law Enforcement Act indicated that implementers relied on networks of non-state professions,

such as academicians and consultants, to interpret and formulate the practices to get things done (Hill, 2003). Overall, the school of thought highlights that the knowledge and problem-solving ability of implementers, and the network among actors at various levels, are crucial for implementation success.

To summarize, tax expenditure policy is likely to be implemented successfully when the objectives are clearly understandable, and the policy contains a valid mechanism that tax benefits effectively lead to participation in retirement saving schemes. In addition, the private sector, as front-line implementing organizations, should be able to acquire adequate resources, skilled staffs, and willingness to pursue the policy objectives. Lastly, target citizens should not be heterogeneous in terms of behavioral response to tax incentives.

#### Distribution of Tax Benefits

Tax expenditure policy has been heavily criticized for distorting the equity principle of taxation by creating welfare for relatively well-off citizens rather than the opposite (Surrey, 1970: 722; Howard, 1999). Basically, the benefits of tax liability reduction rarely apply to individuals whose income is below the tax threshold. Meanwhile, high-income taxpayers are more likely to participate in tax subsidized programs such as retirement savings, home ownership, and insurance coverage (Toder et al., 2011).

In case of retirement savings, empirical studies have suggested that tax benefits are disproportionately distributed to the wealthy class of taxpayers. Based on U.S. Individual Retirement Accounts from 1983 to 1986, thirty-four percent of tax benefits were allocated to the highest income group, which shared only seven percent of the samples. On the other hand, the lowest-income income group earned eight percent of the tax benefits, although the group covered thirty-one percent of the samples (Bernheim & Scholz, 1993).

This evidence was echoed by Huberman, lyngar and Jiang (2007). The authors found that a 10,000 USD increase in income was positively associated with a 3.7 percent higher chance of participation, and also a higher contribution amount of 900 USD. Similarly, a report from the U.S. Congressional Budget Office revealed that high-income taxpayers with an annual income of more than USD 80,000 per annum had a participation rate (in retirement savings program) at around eighty percent of the group, while those with an income of less than USD 20,000 per annum participated at only twenty percent (Congressional Budget Office, 2013).

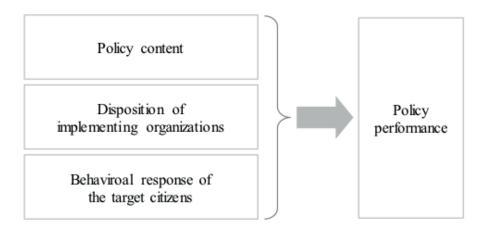
Two factors are found to be critical in explaining the distribution of tax benefits. One is saving capability, and another is marginal tax rate. An abundant level of wealth may be earned from either a well-paid salary or accumulated wealth. The situation creates opportunity for upper-class taxpayers to gain from a tax expenditure policy, given that tax-subsidized programs require out-of-pocket spending from the participants. It is likely that the wealthy are able to avoid penalties for early withdrawals by consuming other assets first (Gale & Scholz, 1994: 117).

The marginal tax rate is another factor that influences the distribution of tax benefits. Based on Registered Retirement Savings Plans in Canada, Daly and Wrage (1980) found that an increase in the marginal tax rate is positively associated with the size of retirement savings. This is not only because of higher capability to save, but taxpayers also have the tendency to perceive more dollar benefits from tax savings. This is because tax allowances could free up a portion of income that would otherwise be taxed. Hence, one dollar of contributions paid out by an individual with a higher marginal tax rate will result in a larger amount of tax savings, compared with the same contributions spent by an individual at a lower tax bracket (Surrey, 1970: 720).

### Research Methods

## Conceptual Framework for the Policy Implementation Analysis

The research seeks to understand the factors that facilitate or impede the attainment of policy goals. A conceptual framework was set by assigning policy performance as the response variable, and three domains, namely policy content, front-line implementers, and the behavioral response of the target (Figure 1).



**Figure 1.** Conceptual Framework for the Implementation Analysis of Tax Expenditure Policy

### Policy Performance

Since tax expenditure policy in the case of retirement savings aims to transform non-savers into savers and encourages them to make savings at a higher rate, participation and contribution rates are considered indicators of policy performance. A higher level of participation suggests implementation success, as more citizens are willing to commit themselves to retirement savings. Meanwhile, a higher contribution rate is related to the likelihood that a person will be able to maintain his or her quality of life during retirement, which is the ultimate goal of the policy.

## **Policy Content**

Policy is considered the backbone of the program. The top-down framework suggests that policy should have clear objectives and guidelines, and a valid causal relationship between the policy mechanism and the behavioral response. A tax expenditure policy for retirement savings is usually embedded with both incentivized and penalized measures. Target citizens are encouraged to set aside their savings until reaching the retirement age in exchange for tax benefits. Penalty measures should be applied in order to force the participants to hold the funds until retirement.

## Disposition of Implementing Organizations

According to the top-down framework, the way to ensure the compliance of implementers is through selecting organizations whose goals are aligned with the policy objectives. In addition, the private sector should distribute adequate financial resources, human resources, and operational facilities in order to execute the tasks. The bottom-up framework highlights the discretion of implementers in order to create strategies to promote retirement savings, while they should have the willingness to make the PVD or RMF schemes their top priority.

### Behavioral Response of the Target Citizens

Due to the voluntary nature of tax expenditure policy, implementation is very much affected by how the target groups respond to tax incentives. High participation and contributions may be observed should the target citizens be identical in terms of awareness of the programs, the ability to save, and the preferences for tax benefits.

The data were collected from three sources including expert interviews, case surveys, and document analysis. The first method was an in-depth interview with managerial personnel in charge of the provident fund or mutual fund business. A total of seven experts from five financial institutions agreed to provide in-depth information. Interviews were conducted during January 2015. The duration of each interview lasted approximately one hour.

Three topics were discussed in order to cover three domains of explanatory variables:

- 1) The effectiveness of tax expenditure policy in promoting participation and contribution.
- 2) The degree of support and, to a greater extent, the commitment of financial institutions to the expansion of the scheme.
  - 3) The perspective of their clients towards tax benefits.

Case surveys, as the second method, combined the elements of a questionnaire with short-period face-to-face interview. The inquiry process follows a pre-defined structure of questions that helps the researcher collect data from a large number of respondents. Short interviews also create an opportunity for the researcher to learn the expressed opinions of the respondents.

The samples were selected from workers that were hired by an employer, or self-employed. The respondents were drawn only from the Bangkok area, where access to financial institutions is convenient. Regarding the other criteria, the income level of respondent had to range from 10,000 baht to 300,000 baht per month, and the age had to be between twenty and fifty-nine years. A total of four hundred and eleven cases were collected during the two-month period of November to December 2014.

The respondents were addressed with three following topics. The first two topics served as additional information to the understanding of behavioral response of the target citizens, while the third topic was important for the calculation of tax benefits in the distributional analysis.

- 1) The reasons for participating or not participating.
- 2) The perception of tax incentives as a key consideration of savings.
- 3) The proportion of savings as a percentage of income.

Document analysis, as the third method, related to the use secondary data in form of laws and regulations that provide a background on policy objectives and guidelines. These included the Provident Fund Act 1987 and its amendments, Ministerial Regulations, and the Notifications of Director-General of the Revenue. Statistical information was mainly used for supportive evidence. The information was mainly from the Securities and Exchange Commission, and the Association of Investment Management Companies.

## Conceptual Framework for the Distributional Analysis of Tax Benefits

While it is expected that high income group is likely to participate in retirement saving program than low income group, issues still remain regarding the distributional impact and source of tax benefits. These include:

- 1) How much tax benefits does each income group earn?
- 2) To what extent does the distribution of tax benefits affect income inequity?
- 3) Which factors, between savings capability and the marginal tax rate, has more influence on the distribution of tax benefits?

To address the first issue, a total of four hundred and eleven respondents from case surveys were classified into four groups based on income level and respective marginal tax bracket. They are non-tax group with annual income below 0.3 million baht (zero tax rate); low-income group with annual income from 0.3 to 0.6 million baht (ten percent tax rate); middle-income group with annual income from 0.6 to 1.2 million baht (twenty percent tax rate); and high-income group with annual income from 1.2 to 3.6 million baht (thirty percent tax rate).

It should be noted that such classification will result in an unequal number of members among groups. This is different from general grouping method, which generates deciles or quintiles with equal size. However, such variation was considered useful for this research because it aided in examining how the respondents with similar attributes—marginal tax rate, or terms to retirement—took action toward the policy.

The value of tax liability reduction is the product of contribution rate, income level, and marginal tax rate. Multiplying the contribution rate and income will result in the contribution amount. This amount will further reduce taxable income, which is the base for tax liability calculation. Just like climbing down the ladder, tax benefits are created due to a change in taxable income multiplied by the highest marginal tax rate applied to a taxpayer (Figure 2). In other words, contributions help free up taxable income that would otherwise be taxed at a high level.

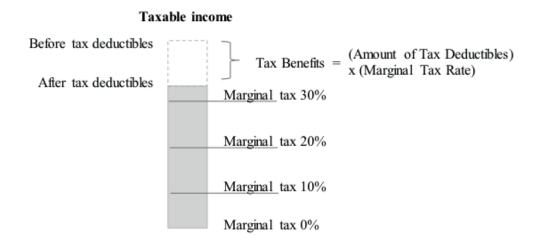


Figure 2. Tax Liabilities Reduction

Regarding the second issue, an estimation of impact of tax benefits on income inequity is made by comparing three sets of income distribution Estimation of the impact of tax expenditure on income inequity was carried out by comparing the three sets of income distribution (Figure 3). The first set represents the gross income that individuals earn before paying taxes; the second set shows the net income after taxes by assuming no usage of tax allowances; and the third set indicates net income after taxes when tax allowances are included.

The relationship between the first and second set reflects the progressive nature of taxation. Income inequity is expected to be lower since taxes are collected from the wealthy income group at a higher rate than the groups with a lower income. Meanwhile, the relationship between the second and third set indicates the impact of tax expenditure policy. It is expected that the policy would partially worsen income inequity by remitting tax liabilities back to the wealthy taxpayers.

Observing the degree of income inequity can be done through calculating the Gini coefficient. This represents the incremental portion of tax benefits—from the poorest to the richest group—in comparison with the incremental portion of the members. Higher coefficient value indicates that the policy is regressive (pro-rich).

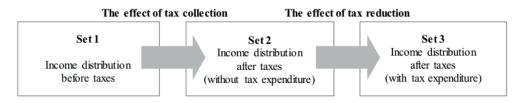


Figure 3. Conceptual Framework for the Impacts of Tax Benefits on Income Inequity

Regarding the third issue, shown in Figure 4, identifying the relative importance between saving capability and marginal tax can be conducted by comparing tax benefits earned among three tax-paying groups: low-income; middle-income; and high-income. The method investigated the impact of one parameter by holding another parameter constant. Identifying the effect of marginal tax rate was similar to asking how much tax benefits that a group earned relative to another, due to the difference in marginal tax rate, given the same contribution amount.

After figuring out the impact of marginal tax, focus was made on the remaining amount of tax benefits generated from unequal contribution amount. If the marginal tax rate has a greater influence on tax benefits than saving capability, this may support the criticism that tax expenditure policy creates income inequity because of the creation of more benefits for wealthy taxpayers from the same amount of contribution.

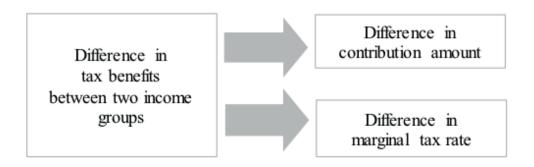


Figure 4. Conceptual Framework for the Sources of Tax Benefits

## Implementation of Tax Expenditure Policy for Retirement Savings

## Implementation Analysis of the Provident Fund

The findings from the analysis of the PVD can be summarized according to four issues. The first two issues concern policy content: incentivization becomes ineffective if it is aimed at the wrong target group; and the pursuit of the policy objective may be derailed if it lacks strong penal measures. The third issue points out the willingness problem of private implementers. The fourth issue suggests that the target may not take into account of tax benefits for their decision.

### Issue 1: Wrong Target Intervention

The PVD scheme involves two contributors: employees and employer. Employees are the target for the tax incentivization where the contributions into the fund are tax deductible. The employer is required by law to help sponsor the scheme at a rate not less than the employees' monthly contributions. The information from the interviews with experts revealed that the slow expansion was caused by the reluctance of the employer to establish the fund in the first place. This is because, once the scheme is put in place, the employer has to set aside additional money for the fund, affecting both cash outflows and expenses. Should the employer become worrisome over financial performance, the best choice is to turn down this plan. If this is the case, the tax expenditure policy will have no chance to incentivize its target.

Such employer's concerns not only affect the participation rate in the system, but also the choice of the contribution rate. In practice, the employer that agrees to establish the fund may limit the maximum contribution rate that his/her employees can choose. This tactic allows the company to conveniently comply with the legal condition that it must help sponsor the fund at a rate not less than that of the employee. The logic is simple: should the contribution rate be kept at a low level, then the employer is able to sponsor the scheme with small amount of money. The statistical data also showed that over sixty percent of fund members make their contribution at the lower range of two to five percent (Table 3).

**Table 3.** Proportion of Provident Fund Members Classified by Contribution Rate, November 2014

Contribution Rate	Share of Members
2.00 to 5.00 percent	62.46
5.01 to 10.00 percent	26.67
10.01 to 15.00 percent	10.87

Source: Securities and Exchange Commission (2015)

The manner in which the tax expenditure policy fails to influence the employer, who is a significant decision maker, is a serious issue in practice. The incentivization mechanism of tax expenditure policy fails to render its impact simply because the scheme is not allowed by employer.

## Issue 2: Multiple Policy Objectives of the Provident Fund

An effective tax expenditure policy comes with a package of tax incentives as a reward for desirable behavior, and penalty measures to prevent the misuse of tax benefits. However, it would be confusing if the scheme contains other objectives rather than only retirement savings. A penalty can hardly be applied even if the participants withdraw the fund beforehand. In terms of public spending, the government sacrifices tax revenue to subsidize the program without being able to expect the intended outcome of the citizens' well-being at retirement.

This is the situation that can be observed from the PVD in Thailand. According to the first version of the Provident Fund Act, the scheme aims to provide financial security for the employees and their families should they be terminated from the jobs: resignation from the company, retirement, disability, or death. Suppose an individual withdraws from the fund before retirement, there are two scenarios in which taxation will occur, depending on the length of the work period with the latest employer. If the duration is less than five years, the total proceeds from the employer-sponsored money and investment earnings will be reported as assessable income in personal income tax filing. If the duration is five years or more, the proceeds will be subject to a special calculation method, called an enclosure form. This mechanism reduces the proceeds by more than half before reporting the net amount as assessable income.

Although it seems as if the proceeds are taxed according to both scenarios, in fact, certain forms of tax privileges apply. This is because early-withdrawers are not requested to return the tax benefits that they have earned or pay any penalty charges. Furthermore, the first scenario is similar to the postponement of tax payment to the subsequent period; meanwhile, the second scenario is essentially tax deductions. As a result, the tax expenditure policy to promote retirement savings fails to render its mechanism since the program also serves other forms of withdrawals.

Issue 3: Preference to Compete for Existing Clients than Approaching New Ones

The objective to encourage savings into the PVD scheme appropriately aligns with the commercial-oriented goals of the private sector. Financial institutions will earn fee revenues as some percentage of asset size. Further, the relationship between the PVD provider and its clients leads to business opportunities where a variety of products from the sister companies may be offered, namely deposits, mutual funds, life insurance, and business loans. Using the private sector to implement the policy also relieves the government of the burden of allocating

a budget, setting up operational facilities, and recruiting staffs. Technical skills of individual implementers can be built through training sessions and certification programs funded by PVD providers.

However, such advantages do not assure the outcome that policymakers want. The private sector retains its autonomy in devising business strategies in order to maximize profit. According to the expert interviews, a common way is to propose better servicing terms to the companies that have already had the PVD, rather than approaching the companies that are without the scheme. This is because the low percentage of fee revenue forces the implementers to look for instant and sizeable assets, rather than waiting for the asset size to slowly accumulate in the case of new clients. This ultimately derails the implementation process. In an extreme sense, if taking clients from rivals is the key strategy among these providers, the coverage of the scheme will show no progress.

Issue 4: Perception Towards the Tax Benefits of the Provident Fund According to the case surveys, the respondents indicated that tax incentives hardly influence their decision to make savings Those that do not participate in the fund are either self-employed and are outside the scope of the scheme, or are earning a very low income such that they consider spending on daily needs more important to well-being in the future.

The participants also give little weight to tax incentives given that the benefit from the employer's contributions was more apparent. For instance, if a member contributes 1,000 baht to the scheme, he/she will earn at least another 1,000 baht from the employer. This will make up a total of 2,000 baht for his account. Meanwhile, the amount of tax benefits relies on the person's marginal tax rate, which ranges from zero to thirty-seven percent of the employee's contributions. The respondents also added that their saving behavior would have been the same even if the tax benefits were removed. This perspective is rather a serious. It implies that tax expenditure policy is inefficient because it rewards the actions that would have been conducted anyway.

## Implementation Analysis of the Retirement Mutual Fund

The information from the analysis of the RMF can be summarized in three issues. The first issue concerns the idea that tax expenditure policy excludes those that have no tax liabilities. The second issue reiterates a similar problem to PVD that the private sector lacks commitment to the pursuit of policy objectives. The third issue concerns different income groups' perceptions of the benefits of the tax incentives of retirement savings programs.

Issue 5: Theoretical Limitation due to Small Base of Taxpayers

Conceptually, the RMF aims to cover both formal and informal workers.

This may give policymakers a hope that it will yield a greater coverage than the PVD. However, it turned out that the RMF covered half a million accounts, which were by far less than nearly three million members of the PVD. This reflects one fundamental deficiency—that the tax expenditure policy is not attractive to non-taxpayers.

In 2012, Thailand had around 38.5 million employed workers in the country. Surprisingly, only 9.79 million or only one-fourth of the total workforce filed their personal income tax. In addition, an even smaller number of 3.25 million people are taxpayers (Table 4).

Table 4. Amount of Taxpayers by Income Class, 2012

Income range (million baht)	Marginal tax (percent)	Tax filers (persons)	Proportion (%)
0.15 or below	Exempted	6,539,501	66.8
From 0.15 to 0.50	10	2,160,095	25.1
From 0.50 to 1.00	20	580,880	5.9
From 1.00 to 4.00	30	184,911	1.9
From 4.00	37	24,709	0.3

Source: Thai Publica (2014)

Such a low proportion of taxpayers implies the tax expenditure policy has failed in its design. The policy leaves the majority of non-taxpayers, around thirty-five million workers, excluded from the scheme simply because they are not motivated by tax liability reduction. Furthermore, the attractiveness of tax incentivization depends on the marginal tax rate of the individual taxpayers. High-income taxpayers are likely to participate than low-income ones. This even limits the size of potential participants in the program.

Issue 6: The Lack of Commitment to Promote the Retirement Mutual Fund

As with the PVD, private business organizations have a profit-seeking motive, which drives in the direction that policymakers want. The government is able to exploit the advantages from their business strategies in form of promotional campaigns and advertising in order to attract clients. In addition, commercial banks tend to be selling agents for mutual funds. This allows policymakers to access a readily-available operational infrastructure that covers the country.

However, these front-line implementers do not focus their businesses only on RMF. Within an investment management company, there are a variety of mutual funds to be offered. The RMF is usually brought to light only during the end of the year when demand for tax savings is heightened.

It is even more challenging to make the RMF a top priority among commercial banks that are selling agents. At this level, commercial banks have a greater range of financial products—savings and fixed deposits, debit cards, life insurances, corporate bonds, personal loans, home loans, etc. The bank staffs normally look for chances to offer life insurances, personal loans, or debit cards first. This suggests difficulty in implementing the program that the tax expenditure policy aims to promote since it depends on the willingness of private sector implementers.

Issue 7: Perceptions Towards the Retirement Mutual Fund and Tax Privileges

The RMF has a low coverage of thirty percent. Majority of respondents show no participation for a variety of reasons (Table 5). Their responses can be classified according to lack of awareness, which refers to the situation in which respondents reply that they have no idea what the program objective is; and lack of consideration, which occurs when respondents decline to join a scheme with any personal constraints—no tax liabilities to be reduced, no savings, or other reasons.

Table 5. Reasons for not Participating in the RMF Scheme, Classified by Income

Reasons	Distribution			
_	Non-taxed Low		Middle	High
	(N = 44)	(N = 117)	(N = 102)	(N = 24)
Lack of Awareness	51.0	10.1	7.4	7.7
Lack of Consideration	49.0	86.0	92.6	92.3
<ul> <li>No tax liabilities</li> </ul>	10.2	-	-	-
<ul> <li>Not enough savings</li> </ul>	8.2	31.0	0.9	-
• Unfavorable conditions	10.2	18.6	43.5	38.5
• Use other tax deductions	20.4	36.4	47.2	53.8

More than half of the non-taxpayers mentioned that they were not aware if such a program existed. This highlights the fundamental problem of tax expenditure—that non-taxpayers have no motivation to participate in a tax-privileged program. The low-income group is plagued with inadequate savings. Most of the respondents in this group tended to be concerned about their current spending needs rather than their long-term retirement well-being.

The non-participants in middle- and high-income groups are with different problems. They tended to weigh the benefits from tax reduction vis-à-vis the cost of compliance before taking action. Most of them mentioned that the scheme

was too long, leaving them with no flexibility in using their savings should any needs occur over a few decades in the future.

Around thirty-six to fifty-four percent of the non-participating taxpayers mentioned that they used enough other tax deductibles so that their tax liabilities come down to an acceptable level. In Thailand, there are a number of tax deductibles that taxpayers can choose. One competing measure that is worth mentioning here is the allowances for the purchase of long-term equity fund (LTF).

LTF is tax-preferred mutual fund established in 2004 to promote long-term investment in Thai stock market. The condition for tax incentives is similar to that of the RMF—that the purchase of fund units is allowed for tax deduction up to fifteen percent of the annual income. LTF has favorable condition that it requires a short holding period—five calendar years, compared to the RMF that requires holding until retirement. Besides, the LTF does not require annual purchases of the fund.

This situation indicates the complexity of the tax expenditure system. The government attempts to promote several dimensions of social well-being at the same time. However, taxpayers view them indifferently as a tool for tax liability reduction. They tend to choose programs that are less complicated, which puts the RMF the second place in their minds.

# Distributional Impacts of Tax Expenditures

#### Tax Allowance Pattern

The tax allowance pattern indicates the participation and contribution rate in retirement saving schemes (Table 6). In the present study, participation in the PVD was strong, covering 88.6 percent of respondents, while variation was narrow, with 77.3 percent for the non-taxed group and from 86.2 to 91.0 percent among low- to high-income taxpayer groups. Contribution to the scheme was 5.41

percent of income on average. Participation in the RMF was smaller, with 30.2 percent of the respondents. The gap was wide, ranging from 19.3 to 63.1 percent of the low- to high-income taxpayer groups, while the non-taxpayers showed no involvement. The average contribution rate was 2.32 percent of income.

**Table 6.** Tax Allowance Pattern by Income Group

PVD			RMF		
Group	Participation Contribution		Participation	Contribution	
	Rate	Rate	Rate	Rate	
Non-taxed	77.3	4.38	-	-	
Low-income	91.0	5.11	19.3	1.14	
Middle-income	90.4	5.89	35.0	2.92	
High-income	86.2	6.22	63.1	5.03	
Average	88.6	5.41	30.2	2.32	

### Distribution of Benefits from Tax Expenditure

Tax expenditure policy clearly distributed welfare to the high-income group of taxpayers (Table 7). High-income group shared 51.4 percent in case of the PVD, and 65.8 percent in case of the RMF, although its size was 15.8 percent of the samples. On the other hand, the low-income group earned a tiny portion at 9.4 percent and 3.3 percent in case of the PVD and the RMF, respectively, despite having one-third of all respondents. Non-taxed group, unfortunately, received no benefit from tax deduction because their income is already below the tax threshold.

**Table 7.** Distribution of Tax Benefits (N = 411)

Group	Proportion of	Distribution of Tax Benefi	
	Respondents	ts PVD F	
Non-taxed (N = 44)	10.7	-	-
Low-income ( $N = 145$ )	35.3	9.4	3.3
Middle-income (N = 157)	38.2	39.2	30.8
High-income ( $N = 65$ )	15.8	51.4	65.8

Table 8 represents the proportion of income shared by each group in three scenarios. Comparing the column named Gross Income before Taxation with the column named Net Income excluding Tax Benefits indicates the impact of taxation. Paying taxes improved income inequity by reducing the share of high-income group by -2.5 percent from 33.5 to 31.0 percent. Meanwhile, the share of non-taxed group increased by +0.5 percent from 3.6 to 4.1 percent. The reduction in Gini coefficient from 0.2691 to 0.2450 suggested that taxation improved income inequity.

The impact of tax expenditure policy can be observed by comparing with the case of Net Income including Tax Benefits. Tax benefits reverse a portion of money back to those taxpayers. The share of high-income group increased by +0.5 percent from 31.0 to 31.5 percent, while the share of non-taxed group decreased by -0.1 percent from 4.1 to 4.0 percent. The increase in Gini coefficient suggested that tax expenditure slightly worsens income inequity.

Table 8. Impacts of Tax Expenditure on Income Equality

Group	Proportion of Respondents	Gross Income before Taxation	Net Income excl. Tax Benefits	Net Income incl. Tax Benefits
Non-taxed	10.7	3.6	4.1	4.0
Low-income	35.3	22.4	23.9	23.5
Middle-income	38.2	40.5	41.1	41.0
High-income	15.8	33.5	31.0	31.5
Gini coefficient	N/A	0.2691	0.2450	0.2505

#### Sources of Tax Benefits

The difference in tax benefits, where a group with a higher income earns more than a lower income, is attributable to differences in the marginal tax rate and contribution amount. The row named Marginal Tax Effect refers to the proportion of tax savings created from difference in tax rate, holding the same amount of contribution. Meanwhile, the row named Saving Effect refers to the proportion that tax savings created from the differences in contributions given that same marginal tax rate between two groups.

The results in Table 9 showed that tax benefits are not due to the stronger capability to save, but due to the difference in the marginal tax rate. For example, comparing between high- and low-income group for the case of the PVD, around 81.6 percent of tax benefits can be attributable to relatively high marginal tax rate of high-income group. Similarly, around 70.2 percent of tax benefits can be observed in the case of the RMF. Similar results are found, but at a lesser degree, when comparing between middle- and low-income group. This suggests that the wealthier income has an advantage over the lower-income group in terms of saving their taxes due mainly to the nature of progressive tax system.

**Table 9.** Sources of Tax Benefits

	High- & Lo	High- & Low-Income		ow-Income
	PVD	RMF	PVD	RMF
Marginal Tax Effect	81.6	70.2	65.8	56.1
Saving Effect	18.4	29.8	34.2	43.9

### Conclusion

In summary, the analysis of policy implementation and distribution of tax expenditure conveyed four key points: the inherent flaw in the design of the tax expenditure policy; the problem of the high-capability, low-commitment of the front-line implementers; the neutral perception of tax benefits; and the vertical inequity of the tax expenditure policy.

## Inherent Flaws in the Design of the Tax Expenditure

Technical validity is necessary for policy implementation. Policymakers need to understand how the policy will be able to create intended outcomes; otherwise, the policy is deemed to fail by design. The case of the RMF suggests that non-taxpayers are essentially excluded from the tax-privileged program because they have no tax liabilities. This incidence creates implementation failure because the number of taxpayers in the country is small compared with the total size of the workforce. In other words, the program coverage will be limited to a fraction of the citizens.

The case of the PVD suggested that intended outcomes are unlikely to be achieved if policymakers fail to recognize who should be the actual target of incentivization. The policy has no chance to render its incentivization effect simply because most employers do not establish the scheme in the first place. Even if the scheme is provided, the policy is still unable to encourage high savings because the employers tend to limit employees' contribution rate.

## Advantages and Disadvantages of Using the Private Sector

This research lends support to the bottom-up approach, where autonomy and commitment are crucial factors in policy implementation. Using financial intermediaries as implementers allows policymakers to utilize their profit-seeking motive in promoting the program in which the policy is embedded. Autonomy allows them to create promotional campaigns that fit the interest of the target. Private sector also allocates its own resources—budget, staff, and operational

facilities—to support the expansion of the scheme. This helps relieve the government from these burdens.

Unfortunately, it is unlikely that autonomy and commitment are positively correlated. The autonomy retained by the private sector grants them the right to choose whether to commit to the scheme expansion. Hence, discretion may create outcomes that deviate from what policymakers expect. This can be observed in the case of the PVD in which financial intermediaries tended to approach the services to companies that already had the scheme rather than searching for new companies that did not have it. The case of the RMF suggests that the private sector generally puts the scheme as second priority. An absence of commitment could derail the implementation.

## Voluntary Nature of the Policy and Behavioral Response of the Target

For tax expenditure policy, the behavioral response of the target citizens is crucial for the success or failure of the implementation. The economic profile, such as income level and savings potentially, explains the use of tax allowances. The case of the RMF revealed that non-taxpaying citizens are unlikely to be aware of the tax-privileged program. Low-income taxpayers weigh more concerns over short-term spending needs rather than tax benefits or financial well-being during old age. Middle- and high-income taxpayers become less interested in retirement savings since they may use other tax deductibles such that their tax liabilities are reduced to an acceptable level. This suggests that policymakers should be aware that taxpayers are unlikely to view tax-privileged programs according to policy objectives, but similarly as tax liability reduction tools.

The case of the PVD is less obvious in terms of the heterogeneity of the behavioral response. However, the insights of participants are vital to policymakers. The findings that fund members weighed the employer's contribution over tax benefits imply that the policy fails. Tax expenditure policy is unable to effectively incentivize the target to make retirement savings. Such an occurrence urges policymakers to rethink the appropriateness of the tax incentives since the treasury wastes resources on supporting activities that could stand on their own.

## Tax Expenditure Policy Is Pro-Rich

The research findings support one key criticism—that tax expenditure creates vertical inequity. Tax benefits are disproportionately distributed towards a minority of wealthy citizens rather than a majority of low-income earners. More than half of the tax benefits were claimed by the highest income group, which covered less than one-fifth of the samples, while the low-income group earned less than ten percent even though it comprised around one-third of the samples.

The research shows that tax benefits are generated from the difference in marginal tax rate, rather than in savings ability between the two income groups. This is because the contributions to the PVD and the RMF are tax deductible, reducing the income base that applies to the marginal tax rate. Within a progressive tax system, individuals whose wages and marginal tax rate are higher are able to receive tax benefits more than low-wage earners, for the same amount of contributions.

## Endnote

<sup>1</sup>The information is based on the time when the data were collected. In November 2015, the fourth revision of the Provident Fund Act relaxed the rule by no longer requiring a tie between the employees' and employer's contribution rate. Fund members are able to save up to the highest rate of fifteen percent of salary regardless of the level of the employer's sponsorship.

#### References

- Anderson, B. (2008). *Tax Expenditures in OECD Countries (Powerpoint Slides).*Retrieved May 22, 2013 from http://www.oecd.org/dataoecd/40/6/39944419.
  pdf.
- Association of Investment Management Companies. (2015a). *Number of Employed Persons and Provident Fund Members.* Retrieved March 31, 2015 from http://oldweb.aimc.or.th/23\_overview\_detail.php?nid=22&subid=0&ntype=4.
- \_\_\_\_\_\_. (2015b). *Number of Mutual Fund Accounts.* Retrieved March 31, 2015 from http://oldweb.aimc. or.th/24 overview detail.php?nid=25&subid=0&ntype=1.
- Bernheim, B. D., & Scholz, J. K. (1993). Private saving and public policy. In Poterba, J. M. (eds.) *Tax Policy and Economy.* Cambridge, MA: Massachusetts Institute of Technology Press.
- Bratic, V. (2006). Tax expenditure: A theoretical review. *Financial Theory and Practice*, *30*(2), 113-127.
- Buracom, P. (2011). The determinants and distributional effects of public education, health, and welfare spending in Thailand. *Asian Affairs: An American Review, 38*(3), 113-142. Retrieved March 24, 2014 from http://dx.doi.org/10.1080/00927678.2011.565282.
- Congressional Budget Office. (2013). The Distribution of Major Tax expenditure in the Individual Income Tax System. Retrieved December 2, 2014 from http://www.cbo.gov/sites/default/files/cbofiles/attachments/TaxExpenditures One-Column.pdf.
- Daly, M., & Wrage, P. (1980). The effect of income tax incentives on retirement savings: Some Canadian evidence. *Eastern Economic Journal*, 7(3-4), 163-174.
- Feldstein, M. (1974). Social security, induced retirement, and aggregate capital accumulation. *Journal of Political Economy, 82*(5), 905-926.
- Gale, W. G., & Scholz, J. K. (1994). IRAs and household saving. *The American Economic Review, 84*(5), 1233-1260.
- Hill, H. C. (2003). Understanding implementation: Street-level bureaucrats' resources for reform. *Journal of Public Administration Research and Theory, 13*(3), 265-282.

73

- Howard, C. (1999). The Hidden Welfare State: Tax Expenditure and Social Policy in the United States. Princeton, NJ: Princeton University Press.
- Huberman, G., Iyengar, S. S., & Jiang, W. (2007). Defined contribution pension plans: Determinants of participation and contribution rate. *Journal of Financial Services Research*, *31*(1), 1-32.
- National Statistical Office. (2015). *Employment Status, Number of Employed Persons, and Umemployed Persons.* Retrieved March 31, 2015 from http://service.nso.go.th/nso/web/statseries/statseries03.html.
- Palumbo, D. J., & Harder, M. A. (1981). *Implementing Public Policy*. Massachusetts: Lexington Books.
- Pressman, J. L., & Wildavsky, A. B. (1973). Implementation: How Great Expectations in Washington are Dashed in Oakland; or, Why It's Amazing that Federal Programs Work at All; This Being a Saga of the Economic Development Administration as Told by Sympathetic Observers who Seek to Build Morals on. Berkeley, CA: University of California Press.
- Rawson, G. E. (1981). Organizational goals and their impacts on the policy implementation process. In Palumbo D. J., & Harder, M. A. (eds.) *Implementing Public Policy.* Massachusetts: Lexington Books.
- Revenue Department of Thailand. (2006). The scope of public finance and the implication of tax expenditure. *Revenue Department Newsletter*. Retrieved September 28, 2014 from http://www.sanpakornsarn.com/page article detail.php?aID=35.
- Sabatier, P., & Mazmanian, D. (1980). The implementation of public policy: A framework of analysis. *Policy Studies Journal*, 8(4), 538-560.
- Securities and Exchange Commission. (2015). Monthly Contributions to the Provident Fund. Retrieved March 31, 2015 from http://www.thaipvd.com/content\_th.php?content\_id=00100
- Social Security Office. (2015). *Number of Insured Persons (Article 33).* Retrieved March 31, 2015 from http://www.sso.go.th/sites/default/files/R&D122009/statisticsmid3 en.html.

- Surrey, S. S. (1970). Tax incentives as a device for implementing government policy: A comparison with direct government expenditures. *Harvard Law Review*, 83(4), 705-738.
- Surrey, S. S., & McDaniel, P. R. (1976). The tax expenditure concept and the budget reform act of 1974. *Boston College Industrial and Commercial Law Review, 17*(5), 679-737.
- Thai Publica. (2014). *During 2012, 3.25 Million Citizens out of 66 Million Citizens Pay Personal Income Taxes.* Retrieved September 8, 2014 from http://thaipublica.org/2014/06/personal-income-tax-structure-19/.
- Toder, E. J., Harris, B. H., & Lim, K. (2011). *Distributional Effects of Tax Expenditure*. Retrieved January 11, 2014 from http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411922-Distributional-Effects-of-Tax-Expenditures. PDF.
- Van Meter, D., & Van Horn, C. (1975). The policy implementation process: A conceptual framework. *Administration and Society, 6*(4), 445-488.
- Weinberg, D. H. (1987). The distributional implications of tax expenditures and comprehensive income taxation. *National Tax Journal*, 40(2), 237-253.