

**THE IMPLEMENTATION AND DISTRIBUTION OF TAX  
EXPENDITURES: A CASE STUDY OF RETIREMENT  
SAVING INCENTIVES IN THAILAND**

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**A Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of  
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## ABSTRACT

<b>Title of Dissertation</b>	The Implementation and Distribution of Tax Expenditures: A Case Study of Retirement Saving Incentives in Thailand
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The research conducted an empirical analysis on the implementation of tax expenditures and distribution of tax benefits. It highlighted the factors affecting this implementation when the policy works through tax incentivization; that is, the private sector becomes a front-line implementer and the target citizens voluntarily choose to participate in the program. Implementation may be derailed if the policy addresses the wrong target or if the proportion of taxpayers is too small compared with the target. Using the private sector relieves the government of setting aside a budget and administrative tasks. However, policymakers should be aware that the private sector is unlikely to commit itself to policy objectives. Target citizens may decline the program because they are more concerned about short-term spending, or prefer other tax-privileged programs. Overall, tax benefits are earned mainly by high-income group due to the nature of progressive tax system rather than differences in saving ability.

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## ABBREVIATIONS

<b>Abbreviations</b>	<b>Equivalence</b>
AIMC	The Association of Investment Management Companies
FETCO	The Federation of Thai Capital Market Organizations
LTF	Long-term Equity Fund
NESDB	The National Social and Economic Development Board
OAPF	Old Age Pension Fund
OECD	The Organisation for Economic Co-Operation and Development
PSR	Potential Support Ratio
PVD	Provident Fund
RMF	Retirement Mutual Fund
SEC	The Securities and Exchange Commission
SET	The Stock Exchange of Thailand
SSO	The Office of Social Security
TDRI	Thailand Development Research Institute

## CHAPTER 1

### INTRODUCTION

#### 1.1 Significance of the Study

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 according to budget appropriation, and an indirect approach through tax codes<sup>1</sup>. Tax expenditure policy, hence, should receive interest in research in a way similar to that of direct spending policy.

##### 1.1.1 Implementation of Tax Expenditure 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 and Wildavsky, 1973; Van Meter and Van Horn, 1975; Sabatier and Mazmanian, 1980), and the bottom-up school, which highlights the roles

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<sup>1</sup> The U.S. Congressional Budget and Impoundment Control Act 1974 defines tax expenditures as “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.” This represents official acknowledgement that tax expenditure is public spending administered through tax laws (Surrey and McDaniel, 1976).

of street-level bureaucrats that use discretion to formulate practices that suit local variations (Palumbo and Harder, 1981; Rawson, 1981; Hjern, 1982). Implementation literature has been developed further into an integrative framework that analyzes the process in a comprehensive manner (Elmore, 1980; Chandarasorn, 1997); a contingency approach that structures implementation according to the context in which the policy operates (Matland, 1995); and a policy change approach that considers implementation as a dynamic process of learning from practical problems and modifying the policy (Sabatier, 1986).

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.

### **1.1.2 Distribution of Tax Benefits**

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; Buracom, 2013). 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 has been heavily criticized for violating the equity principle of taxation by discriminating non-taxpayers vis-à-vis taxpayer, and the poor vis-à-vis the wealthy (Surrey, 1970; Howard, 1997). 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, Harris and Lim, 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.

### **1.1.3 Retirement Saving Incentives in Thailand**

The research uses tax expenditure policy for retirement savings in Thailand as a case study. The country has adopted two voluntary saving programs: the provident fund (PVD), and the retirement mutual fund (RMF). The PVD is an employer-sponsored scheme that was established through the Provident Fund Act in 1987. Tax incentives have been embedded since 1995 in order to promote the scheme's expansion. The RMF is a tax-preferred type of mutual fund that was enacted by Ministerial Regulations in 2001. The contributions, or retirement savings, into these schemes are tax deductible, which helps to reduce tax liabilities for the participants<sup>2</sup>.

Both programs face the problem of poor coverage. In 2014, the PVD reached 2.82 million members or 10.03 percent of the total workforce, despite its twenty years of incentivization. Meanwhile, there were approximately 0.41 million RMF accounts

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<sup>2</sup> A tax deduction is a form of tax liability reduction mechanism that reduces taxable income, which is the base for tax calculation. The details are provided in section 2.2.2 Forms of Tax Liability Reduction.

in 2014, which penetrated only 1.07 percent of the total workforce after fifteen years<sup>3</sup>. This seems to go against the benign growth rate of contributions over the past ten years (Table 1.1). In the case of the PVD, the contribution amount doubled from 25.6 billion baht in 2005 to 48.3 billion baht in 2014, translated into 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.

**Table 1.1** Contributions to Provident Fund and Retirement Mutual Fund, 2005-2014

Year	PVD*	RMF*
2005	25,583	5,337
2006	29,030	6,480
2007	34,411	7,612
2008	42,329	9,529
2009	30,612	10,248
2010	31,032	10,962
2011	34,965	8,955
2012	39,260	10,374
2013	43,632	10,915
2014	48,344	10,344

**Source:** Securities and Exchange Commission, 2015a, 2015b.

**Note:** \*Unit in million baht.

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.

<sup>3</sup> The data on the PVD members were obtained from the Association of Investment Management Companies (AIMC), and data on the RMF fund accounts were obtained from the Securities and Exchange Commission (SEC).

## **1.2 Objectives of the Study**

Given the problems of slow progress and the likelihood of income inequity, this study aims to understand the causes and to propose certain recommendations in order to improve the policy. The three research objectives are as follows:

1) Implementation analysis: 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, behavioral response of the target citizens, and environmental factors.

2) Distribution analysis: 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.

3) Policy recommendations: to improve the effectiveness of implementation and to mitigate the inequality of tax expenditure policy regarding retirement saving programs.

## **1.3 Contributions of the Study**

This study creates an opportunity to observe the potency and limitations of the tax reduction mechanism in promoting desirable action among the target citizens. It also reveals how effective the private sector is, which operates outside the bureaucratic system, in handling the policy objectives. Additionally, since the policy usually deals with voluntary programs, gaining insight of the target citizens towards tax benefits is equivalent to understanding the nature of problems that the policy wishes to overcome. The research also explores the extent to which tax benefits are earned by different groups. This will aid policymakers in understanding the side-effects of the policy embedded with tax incentives.

## **1.4 Limitations of the Study**

The implementation analysis in this research adopted a case study research strategy. This method allows the researcher to gain in-depth information about how

and why things happen in the empirical context (Yin, 2003). The method is usually criticized for being case-specific and for a lack of generalizability. However, qualitative research can be generalized that the empirical results can be compared with other cases in similar areas to reveal the common factors or to identify new ones that may help improve knowledge.

The results regarding the distribution of tax benefits should be used with caution however. The survey was conducted using only samples working in Bangkok, where the citizens are likely to have greater access to financial services and earn higher income than the rest of the country. Though it is likely that the majority of PVD members and RMF account owners reside in Bangkok, it is not suitable to make an inference to the country level. The differences in participation and contribution between geographical areas unavoidably affect the distribution of tax benefits across groups.

## **1.5 Organization of the Study**

The research comprises seven chapters in total. Chapter two reviews the literature regarding the concepts of tax expenditure, policy implementation, and distributional effects. Chapter three describes the research methods employed in this study—case study for the implementation analysis and benefit incidence for the distribution of tax benefits. Chapter four provides the background regarding why retirement saving stimulation policy is needed, and explains the nature of retirement saving schemes in Thailand. Chapter five reveals the research results by analyzing the implementation process of tax expenditure. Chapter six identifies the distributional impacts and the sources of tax benefits. Lastly, chapter seven concludes the findings and proposes recommendations to improve the programs.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The research aims to understand tax expenditure policy in the area of policy implementation and the distribution of tax benefits. The literature review begins by providing the meanings and scope of the policy and its incentivization mechanism in section 2.2. The notable approaches that identify the variables in the policy implementation process are described in section 2.3. Lastly, section 2.4 shows the empirical results regarding the distribution of tax benefits.

#### **2.2 Concepts of Tax Expenditure**

##### **2.2.1 Definitions and Scope of Tax Expenditure**

The term “tax expenditure” originated with Stanley S. Surrey<sup>4</sup> in an attempt to relate policy concerning tax liability reduction to a kind of public spending. Surrey (1970) strongly argues that these tax provisions have several defects; namely, difficulty in controlling the losses in tax revenue due to operating outside the scope of annual budget reviews; vertical inequity due to the redistribution of tax benefits to high-income taxpayers rather than low-income or non-taxpayers; and the waste of fiscal resources since tax expenditure reward the behavior that would have been conducted even without such incentives.

The U.S. Congressional Budget and Impoundment Control Act was passed in 1974 in order to create transparency in public spending by requesting the Treasury to estimate the amount of tax revenue losses as a part of its annual budget submission.

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<sup>4</sup> Harvard law professor and former Assistant Secretary of the U.S. Treasury for Tax Policy during the late 1960s

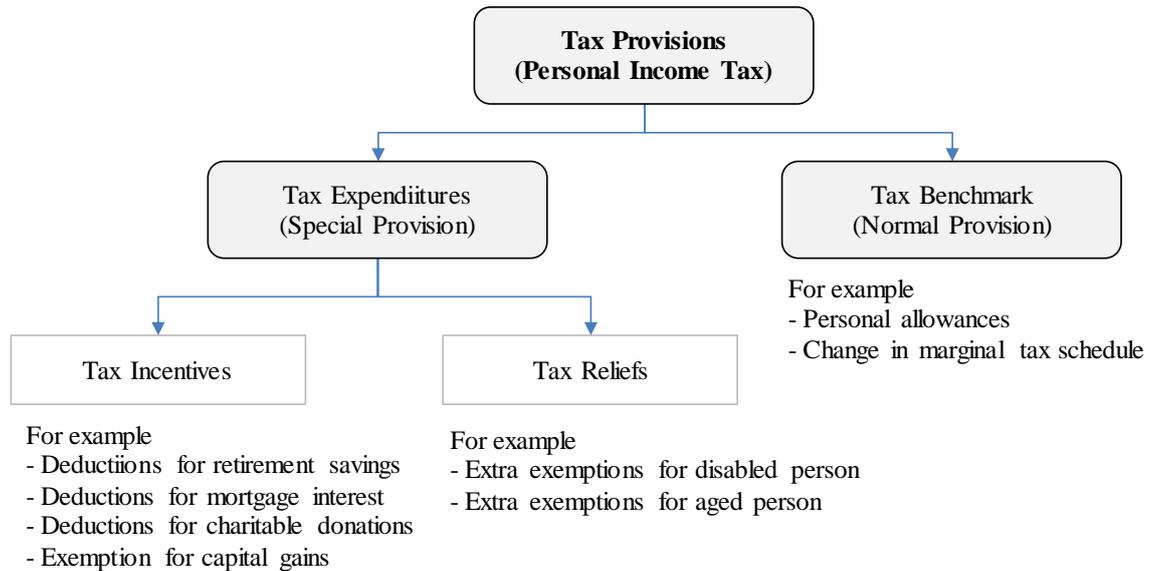
According to the Act, tax expenditures are “revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability” (Surrey and McDaniel, 1976: 683).

Stanley S. Surrey and Paul R. McDaniel further suggest the differences between normal provision (tax benchmark) and special provision (tax expenditure). The benchmark can be considered when the measure related to the structure of income tax (Surrey and McDaniel, 1976: 680). For example, the change in the marginal tax schedule<sup>5</sup> or the tax reduction given to all taxpayers regardless of socio-economic profile or activity is viewed as a tax benchmark. On the other hand, the provisions that are designed to favor specific activities or particular types of persons can be interpreted as tax expenditure.

These special provisions can be further classified into incentivized and non-incentivized activities (Surrey, 1970: 711-713). Most of them aim to motivate citizens to take a desirable course of action, such as buying a house, purchasing life insurance, giving donations, or making long-term savings for retirement. Some of them are non-incentivized measures that aim to alleviate the personal hardship or misfortune occurred to a specific target group. These include tax allowances for senior citizens, disabled persons, childcare and children’s education, or tax relief for the inhabitants of disaster areas. The structure of tax provisions associated with personal income tax is shown in Figure 2.1.

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<sup>5</sup> A marginal tax schedule refers to a set of marginal tax rates, and also refers to a percentage of tax imposed on an additional amount of income. Generally, the income is divided into ranges where the higher level of income is positively associated with an increasing tax rate level.



**Figure 2.1** Classification of Tax Provisions

There is no uniformity in the definition. Vjekoslav Bratic views tax expenditure policy as “an instrument the government uses to favor certain groups or categories of taxpayers (sectors, firms or individuals) and to provide incentives to given economic activities or branches” (Bratic, 2006: 114). Highlighting the incentivization effect, his definition is different from Surrey’s perspective—that it has both incentivized and non-incentivized purposes.

Other definitions point specifically to the favoritism nature of tax expenditure policy. For instance, the Commonwealth of Australia expresses such policy as “a provision of tax law that provides a benefit to a specified activity or class of taxpayer that is concessional when compared to the standard tax treatment that would apply” (Australian Government the Treasury, 2013: 12). Barry Anderson, former head of the Budgeting and Public Expenditures Division of the OECD, refers to tax expenditure as “provisions of tax law, regulation or practices that reduce or postpone revenue for a comparative narrow population of taxpayers relative to a benchmark tax” (Anderson, 2008). The Revenue Department (RD) of Thailand, similarly, refers to tax expenditure as a form of public spending through tax liability reduction that benefits certain groups of individuals or juristic taxpayers (Revenue Department, 2006).

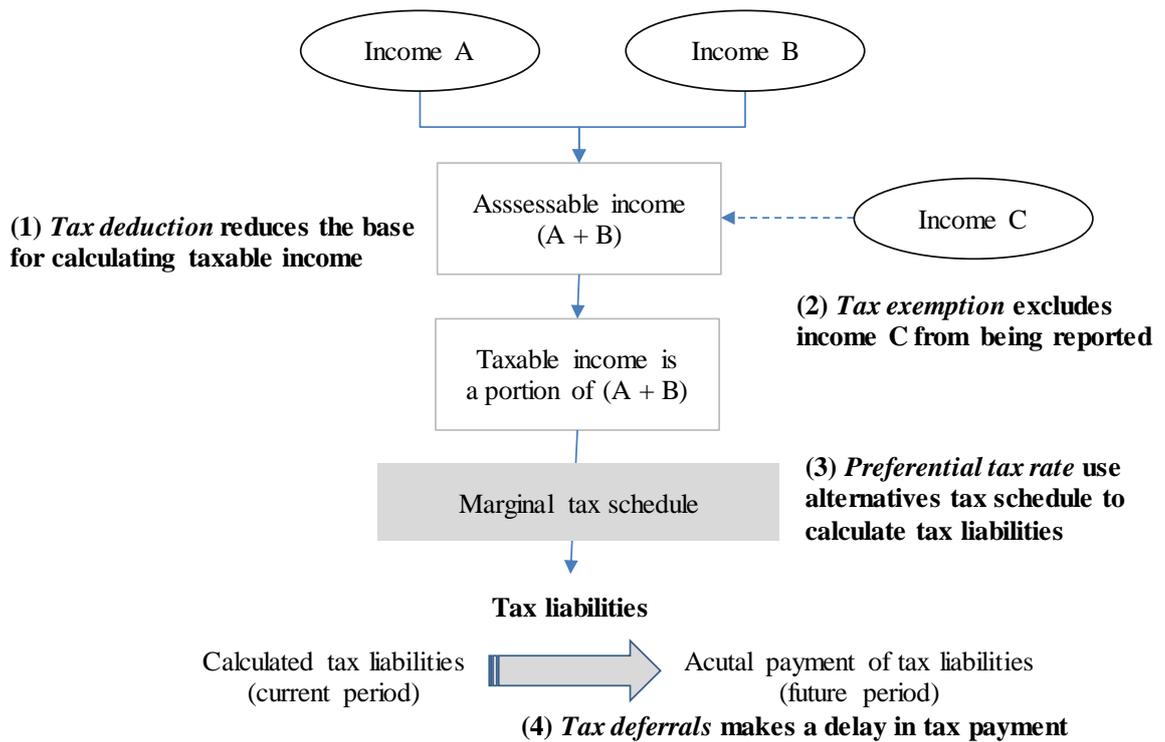
Overall, tax expenditures represent the losses of tax revenue administered by tax codes, which offer a special reduction that departs from the usual tax structure. It may aim to incentivize a specific group of citizens or activities, or pursue non-incentivized purposes such as relieving certain personal adversities.

### **2.2.2 Forms of Tax Expenditure**

In general, the process of taxation begins when a taxpayer declares his/her income in the tax filing form. Usually, this so-called assessable income is not taxed entirely. Rather, a certain portion will be excluded such that the remaining amount will be used for the base for tax calculation. Finally, the marginal tax rate applies to taxable income to bring about tax liabilities.

There are several ways in which tax liabilities can be reduced—exemptions, deductions, preferences, and deferrals (Bratic, 2006; Anderson, 2008). They address different stages of tax calculation, as shown in Figure 2.2. The first two approaches deal with income recognition. Tax exemptions simply exclude certain types of revenue streams from being treated as assessable income. Taxpayers receive tax benefits because such revenue is legitimately not to be declared in the tax filing form at all. Tax deductions, or tax allowances, reduce assessable income to a certain extent. Tax benefits can be earned because the base for tax liability calculation is smaller.

The latter two concerns tax calculation and payment. Tax preferences, or rate reliefs, charge a lower marginal tax rate than originally applied. Tax benefits are made according to the differences between privileged and general scenarios. Tax deferrals refer to the postponement of tax payment to the future. Based on the concept of the time value of money, tax benefits are identical to the interest income that might be received if the amount of unpaid liabilities is deposited in the bank.



**Figure 2.2** Methods of Tax Liability Reduction

Basically, tax exemptions and deductions are used in combination to create tax arrangements specifically for retirement savings. Conventionally, three stages of cash flows are taken into account: when contributions are made, when investment income and capital gains are accrued, and when accumulated assets are withdrawn at retirement. Each stage is denoted with a letter code, either T for being taxed or E for being exempted or deductible.

The most prevalent form of arrangements is called Classical Expenditure Tax, represented by EET. Its taxation principle is based on consumption ability of individuals. When savings are made in the program, the amount is granted as tax deductible since it reduces consumption in the current period. Investment income earned during the time before retirement is tax exempted because it must be accumulated in the fund. An individual is subject to being taxed when the withdrawal is made because he/she has more money that can be used for consumption. The schemes that apply EET are, for instance, IRAs and 401(k) in the United States, and Personal Pensions in the United Kingdom.

Another arrangement called Pre-Paid Expenditure Tax or TEE reverses the taxation pattern of the former. It is based on the idea that citizens at the working age are more capable to pay taxes than aged citizens. Accordingly, the government still charges taxes even if an individual has made his/her savings in the program. A tax exemption is granted when the money is withdrawn at the retirement age. This form applies to the Roth IRAs and Roth 401(k) in the United States.

The Comprehensive Income Tax or TTE imposes taxation on both contribution amount and investment income. This arrangement can be observed in case of the Superannuation in Australia and New Zealand. Lastly, a Tax Haven or EEE is the most generous form since it grants tax benefits to all cash flow transactions. Contributions to the fund are tax deductible, while investment income and the withdrawal amount at retirement age are tax exempted. This arrangement applies to the PVD and the RMF in Thailand.

### **2.2.3 Incentivization and Penalty Mechanism**

In the case of retirement savings, tax expenditure policy is comparable to a reciprocal agreement between the government and citizens. The government grants tax benefits as incentives for citizens to conduct desirable behavior, which is believed to alleviate social problems. The citizens, in return, agree to strictly comply with the legal bindings; otherwise penalties are imposed. Hence, the essence of the tax expenditure policy comprises incentivization for a specific behavior, and penalization if the agreements are breached.

Economists believe that it is appropriate to incentivize retirement saving behavior. From the viewpoint of policymakers, citizens are less likely to be aware of financial difficulties and lower the quality of lives during retirement. To prevent this myopia 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 quoted in Feldstein, 1974: 907).

From the viewpoint of participants, tax benefits tend to compensate them for committing money to a long-term period. This is because, generally, financial instruments like saving deposits, mutual funds, or equities can be sold and converted into cash in just a few business days. Meanwhile, fixed deposits or fixed income funds

can be liquidated within three to twelve months, depending on investment terms and conditions. Hence, 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. If an individual invests 10,000 baht to earn an interest income of 500 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 200 baht, he/she will earn an additional two percent from the investment, making up a total return of seven percent.

In practice, 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. Suppose an individual is charged a 20 percent marginal tax rate. His/her contributions to the tax-privileged program will deduct taxable income accordingly and create an investment return of 20 percent for the transaction. Suppose further that this individual is required to commit to the fund for five years; the contributions can be translated into a simple return of 4 percent per annum.

This interaction between marginal tax rate and duration creates differences in the incremental returns that each participant could earn. If the eligible age is set at fifty five years, a young worker aged thirty-five years must stick with the scheme for at least twenty years. Contributions that are made at a 20 percent marginal tax rate could be translated into an investment return of 1 percent per annum. On the other hand, an aged worker with a time to retirement of five years and a tax rate of 10 percent could be able to earn a higher return of 2 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. In other words, tax incentive is likely to be well responded to by high-income and older taxpayers than low-income and younger ones.

Apart from tax incentives, tax expenditure policy for retirement savings generally comes with penalties for early withdrawals. Violating the rules will force such an individual to return tax benefits and, if any, penalty charges. This requirement not only helps ensure that the tax benefits are granted to serve specifically retirement savings, but also performs like self-control for the participants to commit their funds to the purpose of the policy (Wise, 1987: 5; Bernheim and Scholz, 1993: 106).

#### **2.2.4 Empirical Results regarding the Incentivization of Tax Expenditure**

Since tax benefits are granted to stimulate retirement saving behavior among target citizens, incentivization is said to be effective if the policy transforms non-savers into savers, and encourages those savers to save more money in the scheme. However, the empirical evidence suggests that tax expenditure policy is ineffective. Orazio P. Attanasio, James Bank, and Matthew Wakefield conducted an analysis using U.S. Individual Retirement Accounts (IRAs) from 1982 to 1990 to examine whether the contributions to the scheme were associated with new savings. They found that more than half of the contributions were made by shifting assets from non-taxable accounts (Attanasio, Banks and Wakefield, 2005).

This suggests that tax expenditure policy has little impact on creating a behavioral change among the target citizens, but simply is a pot of gold for wealthy taxpayers. This is in accordance with the criticism that tax expenditure policy yields windfall benefits by rewarding the behaviour that could have been conducted anyway, even without incentives (Surrey, 1970: 719).

#### **2.2.5 Summary of the Concepts of Tax Expenditure**

Tax expenditure is the provision of tax laws aiming to encourage the target citizens to conduct desirable behavior, or to subsidize a specific activity. Tax expenditure involves several forms of tax reduction mechanisms. Tax arrangements for retirement savings are different from country to country. The proponents view that contributors to tax-preferred schemes have a higher level of savings than non-contributors; meanwhile, the scheme carries with it a penalty, which is a commitment mechanism that prevents funds from being used for non-retirement purposes. This makes the scheme suitable for those that lack self-discipline to save for retirement.

### **2.3 Policy Implementation Theory**

#### **2.3.1 The Meanings of Policy Implementation**

Implementation literally means putting policy into practice. It can be specifically defined based on different perspectives. In the broadest sense, it can be defined as a stage in the policy-making process that links the expression of intention

of policymakers and the actual results occurred. George C. Edwards defines policy implementation as “the stage of policymaking between the establishment of a policy—such as the passage of a legislative act, the issuing of an executive order, the handing down of a judicial decision, or the promulgation of a regulatory rule and the consequences of the policy for the people whom it affects” (Edwards, 1980: 1). Similarly, Laurence J. O’Toole refers to policy implementation as “what develops between the establishment of an apparent intention on the part of government to do something or stop doing something and the ultimate impact of world of actions” (O’Toole, 2000: 266).

Following the Weberian notion that favors centralized command and control, the top-down approach views implementation as the carrying out of a policy decision (Sabatier and Mazmanian, 1980: 540), or the process of interaction directed to achieve policy objectives (Pressman and Wildavsky, 1973: xvi; Van Meter and Van Horn, 1975: 447). This perspective 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 includes selecting a suitable implementing agency, providing resources to support the tasks, and communicating and enforcing the guidelines.

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 (Palumbo and Harder, 1981). This also suggests what implementation success looks like. 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 reflects the problem-solving strategies of street-level bureaucrats (Hjern, 1982). This is because the policy statements may be ambiguous from the beginning in order to pass the law, or may not be flexible enough to suit local situations. Front-line implementers, as a result, should be allowed to take suitable actions. Hence, implementation success cannot be guaranteed by strictly following orders, but depends greatly on the local implementer’s ability to adapt to local conditions.

Scholars have identified a number of factors that have led to success or failure in implementation. This section classifies them into six approaches according to the following perspectives: a top-down one that reflects the viewpoints of policymakers (section 2.3.2); a bottom-up one that reflects the viewpoints of implementers (section 2.3.3); a synthesized approach that attempts to pick crucial factors from both top-down and bottom-up schools (section 2.3.4); the contingency approach that claims the validity of both schools based on the context in which the policy operates (section 2.3.5); a policy-oriented learning approach that highlights political conflicts as the factor that drives policy change and improvement (section 2.3.6); and the service utilization approach that specifically focuses on how the policy could be reached by target citizens (section 2.3.7).

### **2.3.2 Top-Down Implementation Approach**

The first attempt to create an analytical framework for implementation was made by Donald Van Meter and Carl Van Horn with a model consisting of five explanatory variables: policy standards and objectives, availability of resources, communication and enforcement or incentives to promote compliance, characteristics of implementing agencies, dispositions of implementing officials, and environmental factors (Van Meter and Van Horn, 1975).

#### 1) Policy Standards and Objectives

Policy standards and objectives is the starting point, given that they reflect the intent of top-level policymakers. It is important that the policy 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.

#### 2) Adequacy of Resources

Resources are suggested to be adequate and available in a timely manner. These include monetary resources such as budget allocation, and non-monetary resources such as technical advice. The authors specifically mention that the government budget was an important input for the process.

#### 3) Inter-organizational Communications and Enforcement Activities

It is important that policy standards and objectives should be correctly

communicated, not only between organizations along the hierarchical structure, but also within an organization. Policymakers should be aware of the operational risk that messages might be inconsistent if they are delivered through multiple channels. A penalty mechanism should be enforced in order to promote compliance among the implementers. The degree of enforcement ranges from being gentle, to an official use of coercive power. A stronger degree of enforcement could be observed through on-site visits, program evaluations, or management reviews.

#### 4) Characteristics of Implementing Organizations

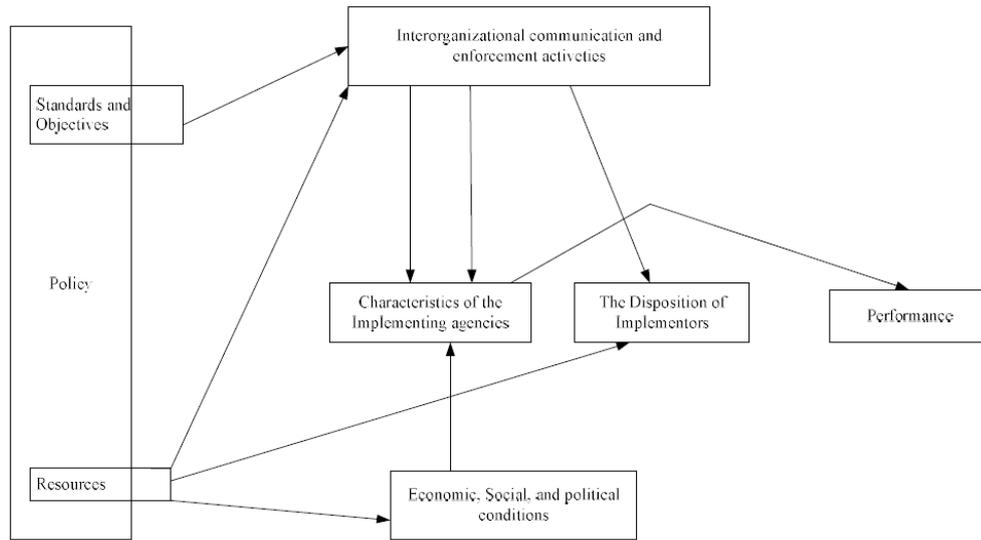
Implementing agencies should have appropriate characteristics for effective implementation. Formal attributes include the number of skilled staff members, a hierarchical structure and communication line, and linkages with the policymaking body. Informal attributes include culture and norms within an organization, and professional relationship building among the parties involved in the process.

#### 5) Disposition of Implementers

Individual implementers need to possess the ability and willingness to handle tasks. The authors mention three elements that affect their behaviors: cognition; direction; and intensity. Cognition, or understanding what the policy is trying to achieve, serves as a basis for individual implementers to conduct suitable behaviors. Direction indicates their attitudes—either acceptance or rejection of the policy objectives. Implementers might reject the policy for personal reasons such as conflicts with their beliefs, or preferring self-interest to social improvement. Intensity refers to the degree of the attitude. Strong negative responses like outright and open defiance, may be observed while a lesser degree could be seen as evading the tasks.

#### 6) Environmental Factors

The environmental condition—economic, social, or political forces—relates to the effectiveness of implementation in various ways. Economic recession might limit the availability of the budget spent on a program. Societal interest groups such as the mass media or public opinion essentially represent the voices of the citizens that might, consequently, build political support or oppositions to the policy. Implementation could also be influenced by the private groups that receive or lose benefits.



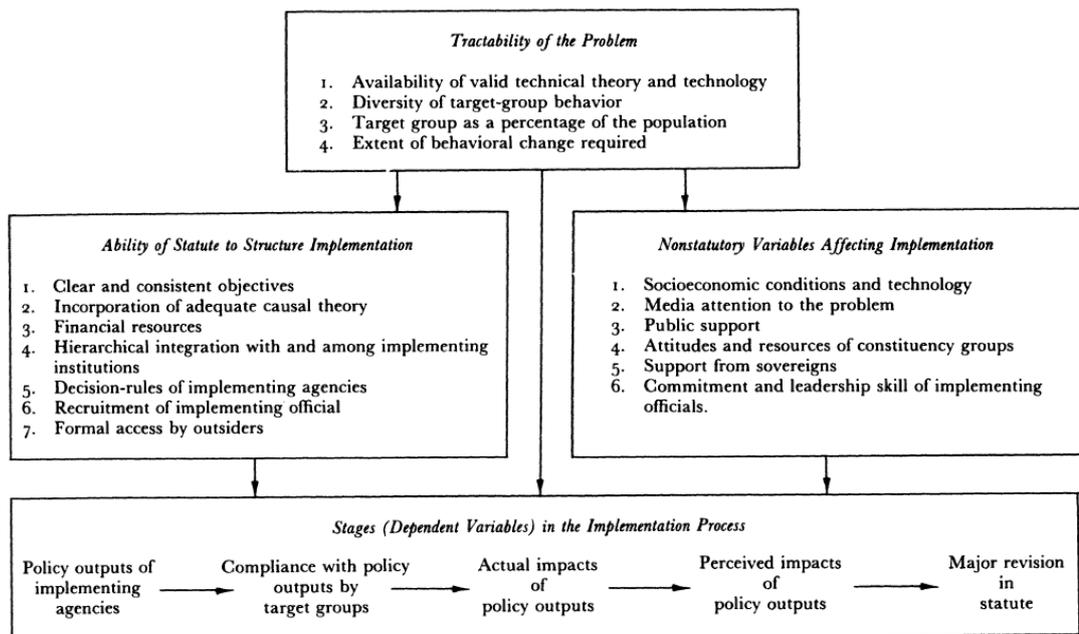
**Figure 2.3** Model of Policy Implementation Process

**Source:** Van Meter and Van Horn, 1975.

Another framework was developed by Paul Sabatier and Daniel Mazmanian, who offered a diagram of the implementation process starting from the passage of a statute, followed by the decisions of implementing agencies and compliance among target groups, to the actual and perceived policy impacts. The factors affecting the achievement of policy objectives are classified 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 (Sabatier and Mazmanian, 1980).

The tractability of the problem represents the nature of problems that a policy is expected to deal with. Since a policy aims to improve the behavior of 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 cluster named the ability of statutory basically relates to the factors that could be managed by policymakers. The authors 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 cluster named non-statutory variables refers to contextual conditions that are not controlled by laws or regulations. Variation in the socio-economic conditions among different geographical areas put pressure on policymakers to rely on the decisions of the implementers that directly face the problems. This, in turn, increases the likelihood that the outcomes would be deviated from what is expected by policymakers. Mass media affects the implementation process since it influences the perception of the general public. 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.



**Figure 2.4** Diagram of Implementation Process

**Source:** Sabatier and Mazmanian, 1980.

### 2.3.3 Bottom-Up Implementation Approach

An alternative approach to implementation studies emerged during the late 1970s as an attempt to argue against the top-down perspective. The so-called bottom-up framework offers the criticism that clear policy objectives and hierarchical control do not guarantee implementation success (Pulzl and Treib, 2007: 93). Instead, the outcomes are mainly influenced by front-line officers, who are believed to have a

better understanding of local problems and the need of target recipients. Hence, policy goals are likely achieved if the implementers gain a certain level of autonomy.

It should be noted that both the top-down and bottom-up frameworks take into account front-line implementers as crucial elements for successful implementation, but from different angles. Top-down scholars tend to consider implementers as cogwheels that get policy moving, so they aim at limiting the autonomy of implementers in order to mitigate the risk that actual outcomes may deviate from the original expectations. This can be observed from choosing sympathetic agencies, having a clear line of communication, and setting up an enforcement mechanism. Bottom-up scholars, on the other hand, argue that the discretion of front-line implementers is not misconduct. Rather, it is a desirable strategy that turns poorly-designed policy into something appropriate (Palumbo and Harder, 1981: xi). 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.

The bottom-up framework was pioneered by Benny Hjern and colleagues, namely, David Porter, Kenneth Hanf and Christ Hull, from 1978 to 1982. These founders began by identifying key implementing officers and relevant parties, and then sought to understand how these actors interacted. Similarly, Richard Elmore (1980) used his backward mapping approach to examine how local officials reacted to the problems they confronted.

The study of Tennessee Valley Authority conducted by George E. Rawson 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 by Heather Hill 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).

Certain scholars in the bottom-up school seek to understand the attitudes of these front-line implementers. In the book *Street-Level Bureaucracy*, Michael Lipsky shows that front-line implementers tend to create practices that enable them to cope with problems confronted in day-to-day operation (Lipsky, 1980). James Sorg proposes a typology of implementation behaviors through a matrix based on the two

attributes of conformity and intention (Sorg, 1983). A total of ten behaviors are identified to explain three scenarios of outcomes—intentional compliance, intentional non-compliance, and unintentional non-compliance (Figure 2.5). The first scenario is an ideal, assuming that implementers are willing to carry out the policy and correctly perform the tasks accordingly. The second scenario, on the opposite, indicates a certain level of resistance on the part of the implementers. The third scenario is rather disappointed—that the implementers are willing to support the program but the results turn to miss policymakers’ expectations.

	<b>Compliance</b>	<b>Non-Compliance</b>
<b>Intention to Conform</b>	<b>Intentional Compliance</b> Conforming Voice 1	<b>Unintentional Non-Compliance</b> Excessive Deficient
<b>Intention not to Conform</b>	<b>Unintentional Compliance</b> (Not Applicable)	<b>Intentional Non-Compliance</b> Replacement Ritualism Delay Voice II Bluffing Exit

**Figure 2.5** Ten Types of Implementer Behaviors

**Source:** Sorg, 1983.

For a brief description, intentional compliance includes Conforming, that implementers strictly take action in accordance with the procedure; and Voice 1, that provides some feedback with a positive attitude to improve the operational process. Regarding intentional non-compliance, Replacement reflects an intention to implement other things that are not aligned with the procedure; Ritualism refers to binding themselves with an old operational guideline or being sluggish to adopt a new one; Delay represents an inaction of implementers due to lack of understanding or necessary resources; Voice II shows a reaction that challenges to change the policy such as appeal to the court; Bluffing is a disguise that one complied with the policy while they are actually not; and Exit refers to avoidance by resigning from the tasks or

transferring to the others. Lastly, Excessive and Deficient represent unintentional non-compliance in the way that implementers are too aggressive, such as allowing disqualified recipients to apply for the program, or too conservative so that they screen out even qualified target recipients.

To summarize, it seems that the top-down and bottom-up schools have opposite frameworks for analyzing policy implementation. The former follows a belief that policy is made from top-level legislature and implementers should strictly act in accordance with the guidelines, while the latter argues that autonomy is necessary for implementation success. According to the present author's view, however, both schools are complementary. The bottom-up school contributes to theoretical advancement by filling the gap in the framework set by the top-down school.

For instance, Sorg's typology of implementers adds detailed explanations to the disposition of individual implementers—outright defiance and evasion of the mission—that was laid down by Van Meter and Van Horn. In addition, Paul Sabatier, one of the notable scholars on the top-down framework, noted in his later work that the discretion and willingness of implementing officials are critical for implementation success (Sabatier, 1986: 23).

#### **2.3.4 Synthesized Approach**

The synthesized approach offers another analytical means of implementation analysis. It aims to overcome the conceptual weaknesses of top-down and bottom-up schools. The top-down framework emphasizes the significance of policymakers in understanding problems and their ability to structure the implementation process, while empirical evidence shows that implementation could be successful even if the goals are vague (Matland, 1995). Meanwhile, the bottom-up framework highlights the importance of front-line implementers in modifying the policy to suit local variations; but such a standpoint is contradictory to the democratic belief that policymakers are representatives of the voters such that their orders are, instead, legitimized by sovereign power (Matland, 1995). In addition, the discretion of local-level officials may result in implementation failure since implementers may prefer personal benefits to social goals (Palumbo and Harder, 1981).

The approach argues that both the implementation structure and individual implementers are essential for implementation success. The scholars in this school, hence, develop frameworks that included both elements. Richard Elmore, in 1985, extended his previous work on the backward mapping approach to include “forward mapping,” suggesting that policymakers should consider policy instruments and the availability of resources, together with the incentive structure of local-level implementers (Elmore, 1985).

Voradej Chandarasorn came up with a different strategy of synthesis (Chandarasorn, 1997). He developed a comprehensive analytical framework consisting of a number of variables in five clusters: the rational model, the management model, the organizational development model, the bureaucratic process model, and the political model. The rational model highlights clear policy guidelines and an enforcement mechanism that are the keys to the implementation success. Clear policy objectives help implementers understand what policymakers expected, and allow them to easily convert the goals into tasks. Such certainty consequently leads to the establishment of performance indicators and a fair evaluation system.

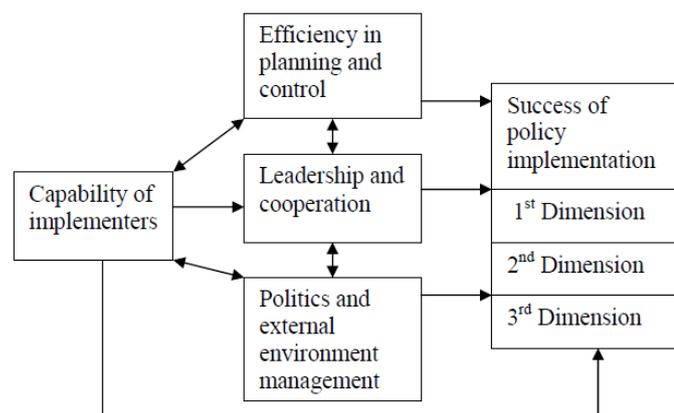
The management model is based on organizational theory and the idea that implementation results depend on the capability of the organization; namely, the structure, the technical and managerial competency of the staff, and the adequacy of resources such as funding, facilities and equipment and supplies. In an organization, each department should be clearly separated according to its function in order to prevent conflicts caused by overlapping tasks. Human resources should be carefully planned such that the tasks are filled with an adequate number of staff members. Training courses should be provided to raise the skill set appropriate to the tasks. Other monetary resources and working tools should be secured for the implementers to perform their duties.

Both the organizational development and the bureaucratic process models share the ideas of the bottom-up framework, which highlights the network relationship, technical ability, and willingness of local-level officials. The organization development model suggests that teamwork and coordination among departments are essential to the implementation success. Leaders should be capable of guiding their subordinates to act in accordance with guidelines. The bureaucratic

process model recognizes the importance of individual implementers' attitude. This is because street-level bureaucrats, as the front office, are likely to be familiar with routine tasks. If the new policy is misaligned with their daily lives, a certain level of resistance is likely to occur and this will lead to implementation failure.

Lastly, the political model is based on the nature of power and politics. The model argues that conflicts are a natural phenomenon, and implementation success could be attained if actors have the power to deal with such conflicts. The variables in this model include bargaining power over the opposing coalition, and the ability to persuade the supporting force.

Chandarasorn (1997) also created an integrative model that combined aforementioned five models altogether (Figure 2.6). The four explanatory variables consist of the following: efficiency in planning and control (rational model); the capability of implementers (management model); leadership and cooperation (organization development model and bureaucratic process model); and politics and external environment management (political model). Implementation success is depicted according to three dimensions: the first dimension relates to the outputs or the tasks that the implementers achieve; the second dimension concerns the outcomes or immediate impacts on the target recipients; and the third dimension takes into account the overall social or economic benefits to the nation.



**Figure 2.6** Integrative Model of Policy Implementation

**Source:** Chandarasorn, 1997.

Overall, the synthesized approach places the key implementation factors from the top-down and bottom-up frameworks into a single model. At the policymaking level, policy guidelines should be clearly made, together with proper communications and enforcement. At the organizational level, an agency should be structured into departments with clear job roles, have an adequate number of skilled staff members, a financial budget, and operational facilities to perform the tasks. At the individual level, the leaders should be capable of creating teamwork and a relationship with relevant parties, while the subordinates have the attitudes necessary to perform the assignments. Lastly, environmental factors, especially political support, should be ascertained.

### **2.3.5 Contingency Approach**

While the top-down and bottom-up frameworks are debated concerning the factors that most affected the implementation process, Richard E. Matland argued that there is no single perspective that matched all situations. Rather, according to him, the choices between the command-and-control and decentralized approaches are contingent upon context (Matland, 1995).

The author highlights two elements: policy ambiguity and policy conflict (Matland, 1995: 155-157). Ambiguity occurs when policymakers fail to clearly outline the goals or the roles of the various actors in the process. This makes the front-line implementers only confuse over the tasks they should perform. Conflict can be observed when actors, who are self-interested, attempt to serve their own purposes rather than policy objectives. Resources—time and money—are spent on bargaining and gaining support from political groups. This ambiguity-conflict combination creates four paradigms of the implementation context: administrative, political, experimental, and symbolic implementation (Figure 2.7).

		CONFLICT	
		Low	High
AMBIGUITY	Low	<p><i>Administrative Implementation</i></p> <p>Resources</p> <p>Example: Smallpox eradication</p>	<p><i>Political Implementation</i></p> <p>Power</p> <p>Example: Busing</p>
	High	<p><i>Experimental Implementation</i></p> <p>Contextual Conditions</p> <p>Example: Headstart</p>	<p><i>Symbolic Implementation</i></p> <p>Coalition Strength</p> <p>Example: Community action agencies</p>

**Figure 2.7** Ambiguity-Conflict Matrix

**Source:** Matland, 1995.

Administrative Implementation refers to the context in which both ambiguity and conflict are low. This is an ideal condition for the command-and-control implementation strategy since the means for solving problems are clearly identified, and specific actors are held responsible for the tasks. The outcomes depend mainly on the adequacy of resources and monitoring activities.

When policy guidelines are specific, but implementing agencies exhibit a certain degree of resistance, Political Implementation occurs. In this case, compliance is not natural, but must be influenced. Policymakers can use different forms of power, such as coercive power through enforcement of laws and regulations, or bargaining power due to the holding of some important resources. The top-down framework is likely to explain implementation outcomes in this scenario, given that it highlights the importance of communications, enforcement, resources, and political support s.

On the other hand, Experimental Implementation can be observed when policy statements are ambiguous but the actors seem to be willingly to agree to pursue common goals. Policy ambiguity leaves it up to the implementers to translate policy objectives into the operational procedures that are perceived to fit local circumstances. Thus, implementation outcomes are likely to be different from one location to another. In this case, the bottom-up framework is superior to the top-down approach in explaining implementation success.

Lastly, Symbolic Implementation refers to the situation in which a policy statement is ambiguous, and more than one coalition is attempted to compete for interests. This might be the case when the policy creates a dramatic change in benefits and loss of interest groups. As a result, the outcomes are determined by the relative bargaining power between competing coalitions. Neither the top-down nor bottom-up models are useful in explaining the process, given that the top-down model exhibits limitations when implementation is dominated by local actors, while the bottom-up model is unable to explain the political nature of interactions.

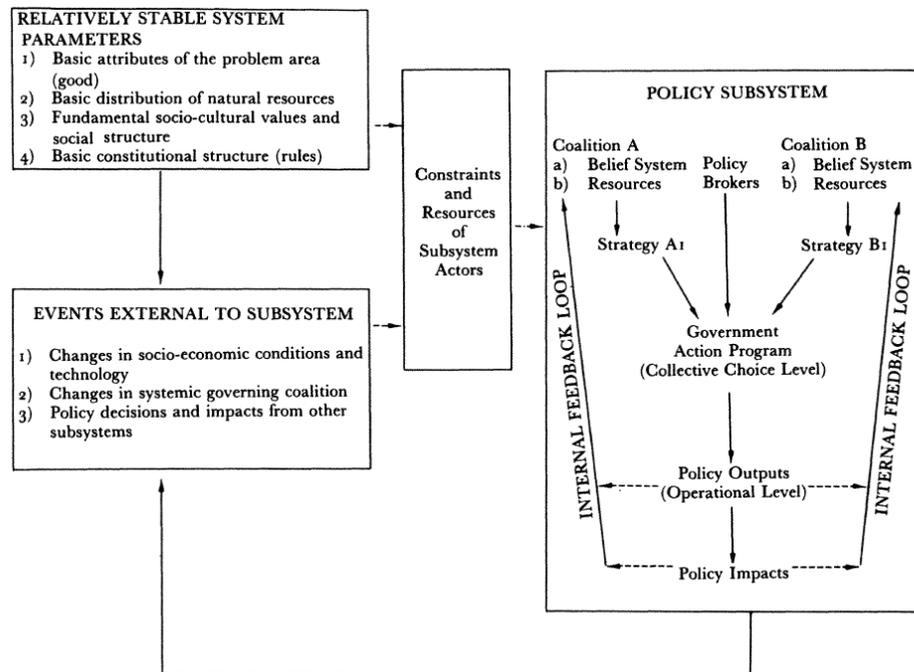
### **2.3.6 Policy-Oriented Learning Approach**

Paul Sabatier, who formerly developed a top-down model with Daniel Mazmanian, provides an alternative proposition called the Advocacy Coalition Framework or ACF (Sabatier, 1986). The author suggests that, by taking into account the implementation process for a time span of ten years or more, the researcher can observe how implementers face the practical difficulties that occur after the policy has been adopted. Their experiences comprise so-called policy-oriented learning, which becomes an important stimulus for policy change.

The ACF proposes an element called the belief system, which has not been generally addressed in the previous implementation literature. The belief system is classified into core and secondary aspects. The former is meant to be static, given that it reflects mutual belief of the general public. The issues include the provision of social welfare, healthcare, and environmental protection, among others. The secondary aspect is more vulnerable to change than the core one. It basically concerns the means of implementation such as administrative decisions, technology, timing, or the size of the government budget. As a result, coalitions are likely to avoid making any changes in the core belief, but tend to modify the means of implementation.

Learning about the deficiencies of a program, various actors—politicians, implementing officials, interest groups, or professionals—can form a coalition with a shared belief. The change in socio-economic or political conditions might trigger a coalition to help policymakers modify the means of implementation that would benefit the group. However, such efforts are usually countered by the opposite coalition, which realizes that their inaction might incur potential losses. Such conflicts

between coalitions are compromised by a mediator, called policy broker, who tries to reach a solution (Figure 2.8).



**Figure 2.8** Policy-Oriented Learning and Policy Change

**Source:** Sabatier, 1986.

Overall, policy implementation can be understood as an evolutionary process that involves a series of interactions between opposing coalitions and policymakers. Policy-oriented learning can be constructive because the debate between coalitions allows policymakers to become more informed about the positive and negative impacts that occur in practice. This, consequently, leads to a policy change that may improve its technical validity or effectiveness.

### 2.3.7 Service Utilization Approach

Policy implementation may be viewed as a manufacturing process that begins with combining resources (inputs) to create services (outputs) to be delivered to the target citizens. The process theory suggests that failures in implementation might occur due to breakdowns either in the production or delivery function. Technically,

both components are called the organization plan and service utilization plan, respectively (Rossi, Freeman and Lipsey, 1998: 154).

The first component gives the idea that the intended services cannot be made with quality should the implementers lack adequate resources or proper managerial skills. The issues concerning budget and technical ability have already been covered in the top-down implementation section. The second component is highlighted in this section that, even if the services are ready, implementation may fail because such intended services cannot be used by the target recipients.

The service utilization plan allows the researcher to systematically make an inquiry into the cause of failures at each step. For example, the target recipients may not be informed about the availability of the program, which raises the problem of awareness. It may be likely that the target may have been informed, but they perceive no benefits from taking action, which raises the problem of consideration. It is also possible that the target may wish to join the program, but due to certain difficulties, they are unable to use the services, which raises the problem of access.

This perspective is essential for the implementation analysis of tax expenditure policy because the use of incentives indicates that the program is voluntary, meaning that the benefits are not served by default although such citizens are eligible. Rather, they must somehow consider this public activity as self-service. In other words, information is provided but citizens need to rely on themselves to understand it, or the services are offered but they need to subscribe to it. Hence, understanding what obstacles target citizens face in using the intended services will give a hint about preventing implementation failures.

## **2.4 Distribution of Tax Benefits**

### **2.4.1 Empirical Evidence of Distribution of Tax Benefits**

The objective of taxation is to provide financial resources to support public programs. It is based on the ability to pay; that citizens with higher incomes should be able to pay takes more than those with lower incomes. In this regard, taxation is also a mechanism that mitigates income inequity by redistributing the wealth from the rich to the poor.

Tax expenditure policy has been heavily criticized for distorting the equity principle of taxation. The policy creates differences in tax liabilities between two economically-identical people because one chooses to take part in tax-privileged activity, while another does not. However, this horizontal discrimination is not as serious as vertical inequity, which discriminates the rich and the poor.

It should be noted that whether tax expenditure policy will benefit the rich or not depends on the nature of the program. Based on U.S. tax expenditure programs, Leonard E. Burman, Christopher Geissler, and Eric J. Toder found that low-income taxpayers were likely to earn from refundable tax credits. Meanwhile, preferential taxes on capital gains and dividend income were mainly claimed by wealthy income groups (Burman, Geissler and Toder, 2008). Similarly, Eric J. Toder, with Benjamin H. Harris and Katherine Lim, compared the distributional impacts of owner-occupied housing, retirement savings, and healthcare coverage. The authors found that home ownership and long-term saving programs tended to favor high-income taxpayers, while medical care program benefited the low-income group (Toder et al., 2011).

Regarding 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 (IRAs) from 1983 to 1986, Douglas Bernheim and John Karl Scholz found that 34 percent of tax benefits were allocated to the highest income group, which shared only 7 percent of the samples. On the other hand, the lowest-income income group earned only 8 percent of the tax benefits, although the group covered as large as 31 percent of the samples (Bernheim and Scholz, 1993). Regarding participation rate, the authors found that the high-income group joined the program at a 4.3 times higher rate than the low-income group.

This evidence was echoed by Huberman, Iyngar, 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 and Scholz, 1994: 117).

The marginal tax rate is another factor that influences the distribution of tax benefits. Michael Daly and Peter Wrage, taking into account Registered Retirement Savings Plans in Canada, suggest 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 (Daly and Wrage, 1980: 164). This is because, according to the tax reduction mechanism, 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).

#### **2.4.2 Summary of Distribution of Tax Benefits**

Based on the ability-to-pay principle of taxation, the progressive tax system has been widely adopted, imposing a higher tax bracket on individuals with a higher income level. This practice not only acquires resources to finance social development programs, but also improves the income inequity of society. Tax expenditure policy has been generally criticized for rewarding the rich more than the poor, although it may depend partly on the nature of the tax-privileged program. However, in the case of retirement savings, the literature shows that tax expenditure policy disproportionately distributes benefits to upper-class citizens due to their higher savings capacity and the inclination to reduce tax liabilities.

## **CHAPTER 3**

### **RESEARCH METHOD**

#### **3.1 Introduction**

This chapter presents the methods used in this research. The chapter begins by providing an overview of the research strategies by pointing out the case study method for the implementation analysis and incidence analysis for the distribution of tax benefits in section 3.2. The analytical framework for the implementation analysis is discussed in section 3.3, while the framework for the distribution analysis is provided in section 3.4. The rest of the chapter discusses mainly the data collection and analytical method.

#### **3.2 Research Questions and Research Strategies**

##### **3.2.1 Research Questions**

The first objective of the study concerns analyzing the factors that may facilitate or impede the implementation of tax expenditure policy. The literature review shapes the research questions, which are grouped into four domains: policy content; the disposition of financial intermediaries that act as front-line implementing organizations; the behavioral response of target citizens; and the environmental context. The specific research questions according to this objective include:

- 1) How does the tax incentivization mechanism support policy implementation?
- 2) How well do financial intermediaries facilitate the implementation of retirement savings?
- 3) Why do target citizens decide to participate, or not, in tax-advantaged programs?

4) How does the environmental context affect the implementation process?

The second objective concerns the distribution of tax benefits. While it is expected that certain groups such as high income and aged citizens are more sensitive to tax incentives than the opposite, issues still remain regarding the size of the benefits earned by each group. Further, understanding the elements that yield tax benefits is important so that relevant policy recommendations can be made. The specific research questions include:

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

### **3.2.2 Case Study as Research Method for the Implementation Analysis**

The research questions provide clues for the appropriate research strategy. The questions regarding how or why things happened are addressed using qualitative analysis. Unlike quantitative techniques such as a questionnaire survey or statistical analysis, this method does not limit itself to the scope of pre-defined variables. Thus, researchers are flexible in examining several aspects of a phenomenon.

Among the different kinds of qualitative approaches, this study chose case study as the research strategy. The case study method presumes that contextual conditions such as culture, values, or time period are highly relevant to how the subject deals with problems they confront. In other words, it allows researchers to gain an in-depth understanding by investigating a subject in his or her real-life context (Yin, 2003).

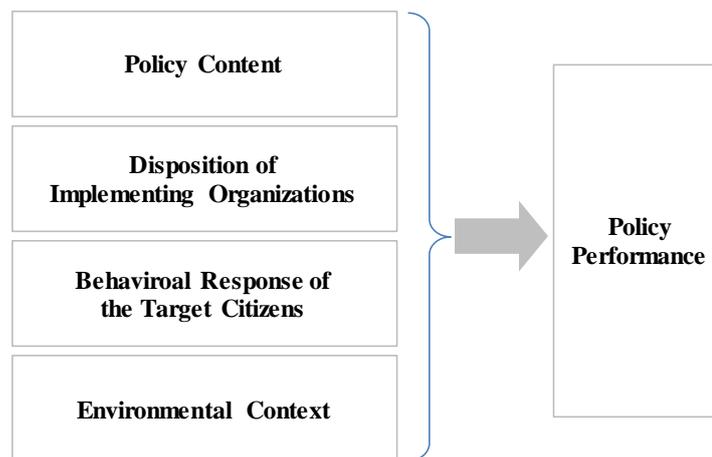
The case study method also aids in providing recommendations to improve the policy, which was the third research objective of the present study. It is necessary to understand what occurs in the current context related to local laws and regulations, the financial intermediary system, and the socio-economic status of citizens in order to yield suitable suggestions.

### 3.2.3 Benefit Incidence as the Research Method for the Distribution of Tax Benefits

The question regarding distributional impacts can be addressed by using a benefit incidence analysis (Demery, 2000). This technique provides a systematic process for the quantification of the proportion that each socio-economic group gains from participating in the programs. The strength of benefit incidence analysis lies in its simplicity in alerting governments about the extent to which a fiscal budget is reallocated to reach the poor. It has a major weakness—that assumptions must be made before identifying how much benefit is distributed to which groups.

### 3.3 Conceptual Framework for the Policy Implementation Analysis

This research seeks to understand the factors that facilitate or impede the attainment of policy objectives. A conceptual framework was set by assigning policy performance as the response variable, and the other four domains—policy content, front-line implementers, the behavioral response of the target, and environmental context—as the explanatory variables (Figure 3.1).



**Figure 3.1** Conceptual Framework for the Implementation Analysis

### 1) 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. Participation refers to the proportion of respondents that indicate that they are PVD members or have their own RMF accounts. The contribution rate is measured by the percentage of income that a participant sets aside into the schemes. 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.

### 2) Policy Content

Policy is considered the backbone of the program. The top-down framework suggests that tax expenditure 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. Meanwhile, penalty measures are put in place in order to force the participants to stick to the funds until retirement.

Additionally, the policy-oriented learning approach suggests that implementation is a dynamic process. As it is unlikely that a policy can be perfectly designed from the beginning, the practical difficulties that occur during implementation may serve as a stimulus to improve the effectiveness of the policy.

### 3) Disposition of Implementing Organizations

Implementers are important because they are the ones that turn the policy decision into practice. According to the top-down framework, the implementation process requires a mechanism in order to ensure the compliance of implementers, such as selecting organizations whose goals are aligned with the policy objectives. It is advisable that the implementing agency possess an adequate budget, human resources, and operational facilities in order to execute the tasks. In the case of retirement savings, since the policy is carried by financial intermediaries, the

outcomes may depend on how these business organizations realize the commercial benefits from the program, and how their resources are used for supporting the policy.

The bottom-up framework highlights the front-line implementer as the key to implementation success. Favorable outcomes are likely to ascertain when individual implementers are capable of dealing with the problems in the local context. Furthermore, the outcomes also depend on the willingness of implementers to give priority to policy objectives over their personal benefits. In the case of retirement saving incentives, supporting behavior can be observed when the implementers try to devise business strategies to attract participants, while constantly promoting the expansion of the schemes.

#### 4) Behavioral Response of the Target Citizens

Due to the voluntary nature of tax expenditure policy, implementation is very much affected by how target citizens, who are the policy recipients, respond to tax incentives. According to the process theory, the implementation will fail if the target has not been realized or does not understand the objectives of the program (lack of awareness), or if the target perceives that the benefits are not justified with the cost of engagement (lack of consideration).

#### 5) Environmental Context

The environmental context includes the economic and political conditions that are beyond the control of policymakers. However, they, in turn, influence the ease or difficulty of implementation. In the case of retirement savings, economic expansion or contraction directly relates to the income level of the working-age citizens. Under a favorable economic condition, higher wages and a marginal tax bracket create a demand for tax savings and possibly the expansion of retirement funds. On the other hand, economic contraction leads the target to become more concerned about short-term financial needs than financial well-being during their older age.

The implementation process is also affected by political force. According to the policy-oriented learning approach, relevant actors with shared beliefs will form into a coalition and attempt to modify the policy in favor of their interests, while another coalition emerges to counter such efforts. The tax expenditure policy for retirement savings is vulnerable to the conflicts between a group that

prefers tax liability reduction or wishes to secure commercial benefits vis-à-vis another group that is concerned about social inequity.

Overall, the implementation of tax expenditure policy can be explained by a set of variables as summarized in Table 3.1.

**Table 3.1** Explanatory Variables and Relevant Theoretical Framework

<b>Variable Domains</b>	<b>Analytical Approaches</b>	<b>Explanatory Variables</b>
Policy content	Top-down	(1) Clear and consistent policy objectives (2) Valid causal relationship
	Policy-oriented learning	(3) Policy modification
Disposition of implementing organizations	Top-down	(4) Alignment between organization goals and policy objectives (5) Adequacy of resources
	Bottom-up	(6) Technical ability of implementing officials (7) Willingness to pursue the policy
Behavioral response of the target citizens	Service utilization	(8) Awareness of the programs (9) Consideration of program benefits
Environmental context	Top-down	(10) Economic and political conditions

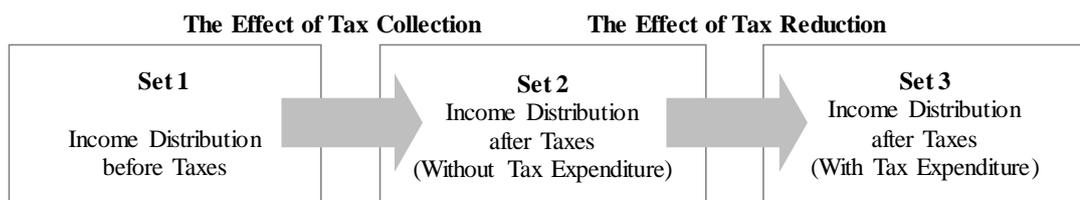
### 3.4 Conceptual Framework for the Distributional Analysis

This section aims to observe three issues related to tax benefits that will collectively provide a comprehensive picture of the distributional impacts of tax expenditure policy. Firstly the usage of tax allowances, both participation and contribution rates, indicates the extent to which each income or age groups is interested in the policy and subsequently earns tax benefits. Secondly, comparing the

size of tax benefits earned by different groups will reveal the regressive (pro-rich) nature of tax expenditure policy in relation to income distribution. Lastly, classifying the factors contributing to tax benefits into saving capability and marginal tax rate aids in understanding how income inequity is created.

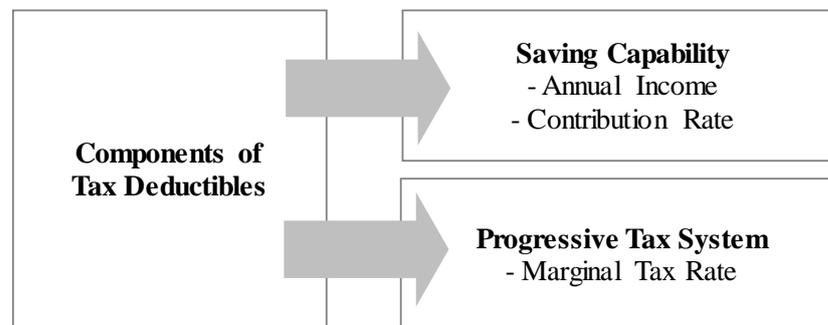
Regarding the first issue, the research will classify the samples based on income level to identify tax benefits among income groups. The same set of respondents will be rearranged based on age level to identify tax benefits among age groups. It is expected that the high-income group would be likely to participate in and contribute to retirement savings more than the low-income group due to the availability of left-over money or because of the motivation to reduce tax liabilities. Meanwhile, the group of older respondents is expected to participate in the schemes more than the younger group because of their being more aware of their retirement well-being. As a result, the wealthy income group and the aged group are likely to share a higher proportion of tax benefits.

Regarding the second issue, an estimation of impact on income inequity is made by comparing three sets of income distribution (Figure 3.2). 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.



**Figure 3.2** Conceptual Framework for the Distributional Impacts

Regarding the third issue, tax benefits are classified into three components: income level, contribution rate, and marginal tax rate (Figure 3.3). With tax deduction, tax benefits are the product of contributions and the marginal tax rate. In addition, contributions, termed as saving capability, are sought by multiplying the income base by the contribution rate. 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 3.3** Conceptual Framework Regarding Sources of Tax Benefits

### 3.5 Unit of Analysis

The research is based on retirement saving schemes in Thailand, including the PVD, and the RMF. Both schemes share similarities in terms of being voluntary retirement saving programs that are embedded with tax incentives. Contributions to the schemes are allowed for tax deductions up to a certain limit, while cumulative investment returns and withdrawal amounts at the age of fifty five years or above are considered tax exemptions. Besides, the schemes are implemented by financial intermediaries that hold fund management license as regulated by the Securities and Exchange Commission of Thailand.

The schemes are different in some aspects. It is required that, in the case of the PVD, the employer and employees must agree to establish the fund in the first place, meaning that participation does not depend solely on the decision of the working-age citizens that are the target recipients of the tax incentives. Meanwhile, participating in

the RMF is more self-determining, meaning that individuals have to make contact with financial institutions and purchase the units of the RMF on their own behalf. The RMF scheme has stricter requirement conditions that require the participants to make contributions continually on an annual basis; otherwise, the participants will be asked to return the tax benefits with certain penalty fees.

### **3.6 Data Collection Method**

The data were collected from three sources: expert interviews, case surveys, and document analysis. An in-depth interview with managerial-level personnel in financial institutions provided fruitful information that contributed to the analysis of the implementation. Case surveys with individual respondents provided an additional perspective regarding the behavioral response of the target citizens, which is one of the domains of the implementation analysis. A set of questions for the case surveys identified the usage of tax allowances, which is crucial for the analysis of the distributional impact of tax expenditure policy. Lastly, the document analysis comprised supportive information by providing details of the policy content and statistical information to back up the data from the first two sources.

#### **3.6.1 Expert Interviews**

An expert interview is an in-depth inquiry with qualified persons that have experience and knowledge in a specific field. The method is useful when the researcher wants detailed information regarding what actors think about certain situations. Interpretations, however, should be made with caution since responses may be biased due to inaccurate memories or subjective opinions and so forth. Memories can be incomplete or distorted if the issues are not occurred currently. Opinions are affected by personal values; for example, respondents may comment on the same issue differently.

In this research, the group of experts consisted of management-level personnel in charge of the provident fund or mutual fund units. Their tasks normally concern analyzing the demands of prospective clients, setting marketing strategies to attract them, and managing the team to achieve business results while remaining within the

regulatory requirements. These experts were selected from leading financial institutions that share a large market share, indicated by the number of the PVD members and the size of assets under the RMF. A total of seven experts from five financial institutions agreed to spend their time in providing in-depth information. They are listed alphabetically as follows:

- 1) American International Assurance, Head of Provident Fund
- 2) Bualuang Asset Management, Head of Public Communications—  
Mutual Fund
- 3) Kasikorn Asset Management, Executive Vice President—Provident  
Fund
- 4) Kasikorn Asset Management, Executive Vice President—Mutual  
Fund
- 5) Krungsri Asset Management, Head of Provident Fund Business
- 6) TMB Asset Management, Head of Provident Fund Business
- 7) TMB Asset Management, Head of Mutual Fund Business

The interviewing guideline was semi-structured. Preliminary questions were drafted as standard topics for the interview. Other questions were added, depending on the situation, in order to match the topics that arose during the interviews or to help clarify the interviewee's opinions. Open-ended questions were provided to cover four 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 clients towards tax benefits
- 4) The impacts of economic and political conditions on the expansion of the scheme

Interviews were conducted during January 2015. An interview guideline was prepared and submitted in writing to the interviewees approximately three to five business days before the appointment took place so that the interviewees had enough time to prepare their answers. Each interview took place at the interviewee's office and the duration was approximately one hour.

### 3.6.2 Case Surveys

Case surveys combine the elements of a questionnaire with the short-period, face-to-face interview. As with the questionnaire form, 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 (formal workers), or were self-employed (informal workers). 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 20 and 59 years.

A total of 440 cases were approached during the two-month period of November to December 2014. Nine cases were excluded due to insufficient information since the respondents would not reveal their income levels. Twenty cases were excluded because the respondents had an income level below the definition of the low-income group, while three other cases were also excluded because they had a higher income than the definition of the high-income group. Hence, there were a total of 411 cases for further analysis.

Table 3.2 provides the profiles of the respondents in terms of income level and age, which were the basis for the analysis in the study. The column named benchmark on the right reflects the proportion of overall taxpayers whose income levels were associated with the range, and the proportion of Bangkok residents whose age could be classified accordingly. Overall, the income profile of the samples was different from the benchmark. The distribution of income level was tilted towards the middle groups that represented more than 70 percent of the samples, while the benchmark was shared mainly by the lowest income group. This was possible given that the samples were drawn from the Bangkok area, where the workers earn higher wages than the average of the whole country. In terms of age classification, the distribution of the samples was concentrated in the range of 30 to 39 years, while the benchmark showed the majority ranges from 20 to 39 years.

**Table 3.2** Profile of Respondents

<b>Characteristics</b>	<b>Range</b>	<b>Percentage</b>	<b>Benchmark*</b>
Income per month	25,000 baht or below (N = 44)	10.7	67.0
	25,001 to 50,000 baht (N = 145)	35.3	25.2
	50,001 to 100,000 baht (N = 157)	38.2	5.9
	100,001 to 300,000 baht (N = 65)	15.8	1.9
Age	20 to 29 years (N = 93)	22.6	30.2
	30 to 39 years (N = 178)	43.3	30.0
	40 to 49 years (N = 93)	22.6	24.2
	50 to 59 years (N = 47)	11.4	15.6

**Note:** Calculation was done by the author.

\*The benchmark was based on Thai Publica (2014) and National Statistical Office (2015b).

The respondents were addressed with three issues:

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

The duration of each round lasted around 10 to 15 minutes. The data fields required for the distribution analysis of the tax benefits consisted of contribution rate, income base, and marginal tax rate. The contribution rate was known directly when the respondents provided information regarding the proportion of income contributed to each saving scheme. Income base was estimated from the income range that each respondent chose. The reason for using this assumption was due to the practical difficulty in data collection—that the respondents normally decline to express their actual income. In order to mitigate this, choices of income range were offered, where the mean value of the chosen one was translated to represent the income base. The marginal tax rate was assigned based on the income range.

### **3.6.3 Document**

A document represents a piece of written or electronic material that provides records of data. This source served several purposes in the study. Official documents such as laws and regulations provided a background for a better understanding of the policy objectives and guidelines. They 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 to cross-check the information drawn from the expert interviews and case surveys. The information was drawn mainly from the Securities and Exchange Commission, and the Association of Investment Management Companies.

## **3.7 Data Analysis Method**

Data analysis consisted of two separate methods: content analysis for the implementation of tax expenditure; and benefit incidence analysis for the distribution of tax benefits. Content analysis is a systematic process that summarizes the data from different sources—verbal or written forms—in order to convey meaningful information pertaining to answering the research questions (Strauss and Corbin, 1998). Benefit incidence analysis is a quantification process that approximates the proportion of benefits claimed by each socio-economic group with an aim to identify whether the policy has reached the prospective group of citizens (Demery, 2000).

### **3.7.1 Content Analysis**

Content analysis consists of three sequential steps. After collecting the appropriate level of data, the analytical process begins by arranging them into groups (open coding), followed by seeking the pattern that leads to key messages (axial coding), and finally developing them into issues with an aim to solve the research questions (thematic coding). Open coding is the stage of categorizing the data that have been collected from different sources; namely expert interviews, case surveys, and document analysis. Irrelevant data are screened out, while relevant and useful data are chosen and grouped together. Each group of data is assigned a label that signifies its relevancy to the dependent or independent variables. This step not only

reduces a massive pile of data to a manageable size, but it also allows the researcher to focus on the data pertaining to answering the research questions.

Axial coding is the stage of seeking the linkages between groups of data. The patterns may emerge in several forms such as the causal relationship that one group directly leads to an occurrence of another, or the contextual condition that one group represents the environment that another group operates. Lastly, thematic coding is the stage of selecting the patterns that are useful for addressing the research objectives. As the name implies, the researcher tends to create a storyline that links to the theoretical framework or preliminary propositions. Throughout the coding process, the literature reviews can be simultaneously conducted in order to find support of or challenges to the theme, while additional data may be collected to fulfill the missing pieces of information.

### **3.7.2 Benefit Incidence Analysis**

Benefit incidence analysis involves three steps. It begins by arranging the users into groups, and is then followed by estimating the benefits that a public spending program generates, allocating such benefits to each group based on the utilization rate. Categorization can be done in several ways, depending on the specific socio-economic profile that the research aims to address. Generally, the researchers apply benefit incidence analysis in order to identify whether a program favors the wealthy class of citizens (pro-rich) or needy individual (pro-poor). Hence, the samples should be grouped based on income level, which leads the researcher to understand the impact of a policy on income inequity.

Income-based grouping also applies to this research. This is because tax expenditure policy aims to encourage long-term saving behavior among non-savers or those that save too little. These groups normally have a low income level, which makes them concern short-term daily spending over long-term financial well-being. Should the policy be viewed as appropriately reaching the target, it is likely that the low-income group will earn a substantial portion of tax benefits. In addition, the research also groups the respondents based on age level. Since the policy aims to encourage savings among working-age citizens in general, the proportion of tax benefits should be allocated close to the size of the respondents in each age group.

The respondents in the present study were classified into four income groups; those with a marginal tax rate of zero, ten percent, twenty percent, and thirty percent:

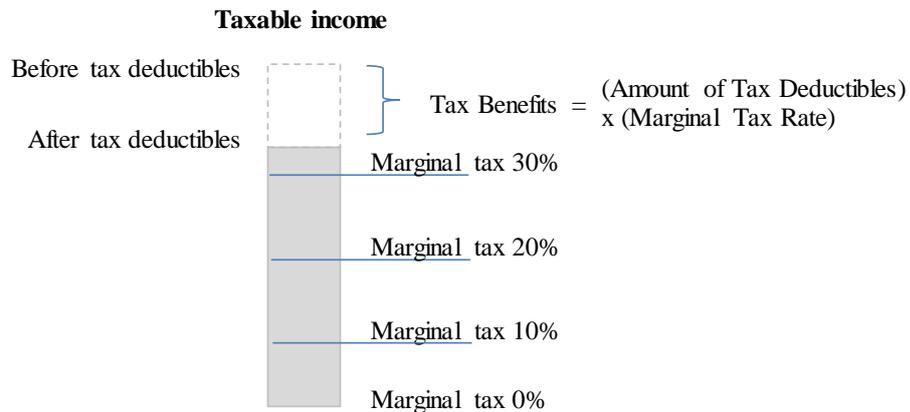
- 1) Non-taxed group – income level below 300,000 baht per annum
- 2) Low-income group – income ranges from 300,001 to 600,000 baht per annum
- 3) Middle-income group – income ranges from 600,001 to 1,200,000 baht per annum
- 4) High-income group – income ranges from 1,200,001 to 3,600,000 baht per annum

Age classification also consisted of four groups:

- 1) Young – from 20 to 29 years
- 2) Mid-age – from 30 to 39 years
- 3) Upper-age – from 40 to 49 years
- 4) Near-retired – age of 50 years and above

These forms of classification will result in an unequal number of members among groups. This is different from the 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 3.4). In other words, contributions help free up taxable income that would otherwise be taxed at a high level.



**Figure 3.4** Tax Liability Reduction

Simply summing up the value of tax benefits for each individual belonging to the same income or age group will present the total benefits earned by this category. Dividing the group benefits by the grand total will depict the proportion of tax benefits. This represents the third set of income distribution, mentioned previously in Figure 3.2. Observing the degree of regressivity (pro-rich) that tax expenditure policy creates can be done through calculating the Gini coefficient. This represents the incremental portion of tax benefits—from the first group (the poorest) to the last group (the richest)—in comparison with the incremental portion of the members. If the size of the tax benefits grows at a faster pace when the relatively richer group is added, the Gini coefficient will be lower, indicating that the policy is in favor of the rich. The formula of the Gini coefficient follows:

$$GINI = 1 + \frac{1}{m} - 2 \left( \frac{\sum_{i=1}^m (m+1-i)q_i}{\sum_{i=1}^m q_i} \right)$$

where  $m$  = number of income class

$q_i$  = share of income distribution for the income class  $i$ .

### 3.7.3 Decomposition Analysis of Tax Expenditure

According to the conceptual framework regarding the components discussed in section 3.6.2, the degree of benefits is positively associated with marginal tax rate,

contribution rate, and income level. This section explores further how these parameters generated discrepancy in the benefits claimed by the two income groups. There were three groups of taxpayers: a low-income group with a marginal tax rate of ten percent; a middle-income group with a marginal tax rate of twenty percent; and a high-income group with a marginal tax rate of thirty percent. The analysis was, hence, carried out by comparing two pairs: high-income vis-à-vis low-income; and middle-income vis-à-vis low-income.

Basically, the method investigated the impact of one parameter by holding the other two parameters for both groups. Identifying the effect of marginal tax rate was similar to asking how many tax benefits that a group earned relative to another, due to the difference in marginal tax rate, given the same contribution rate and income level. After figuring out the impact of group marginal tax, focus was made on the remaining amount of tax benefits generated from group unequal contribution rate by holding the marginal tax rate and income base identical. Lastly, the impact of the income level was sought by leaving those two parameters the same<sup>6</sup>.

### **3.8 Validity and Reliability**

The quality of social science research methods can be judged based on certain criteria; namely, internal validity, external validity, and reliability. Internal validity or creditability refers to the ability to identify a causal relationship—that one condition gives rise to another. External validity concerns the extent to which the findings can be generalized or applied to other situations. Lastly, reliability relates to the trustworthiness of the research findings.

Credibility can be improved by triangulation, which involves collecting data from multiple sources. This technique aims to seek the pattern that helps to ensure that the findings are as robust as possible. In other words, having multiple evidence that point to the same results could create more confidence in interpretation than relying on a single source alone. This research collected data from several sources, including in-depth interviews with key informants in financial intermediaries, case

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<sup>6</sup> See Appendix C: Decomposition of Tax Benefits for the description

interviews with taxpayers, and documents. If relevant, the data from one source were used for supporting or contrasting another.

In terms of generalizability, although there has been a criticism that qualitative analysis may lack the power to make an inference to the population as quantitative analysis does, however, the way in which qualitative study can be generalized has its uniqueness. The findings can be compared with other studies in different contexts, which lead to the expansion of knowledge (Lincoln and Guba, 1985). Further, although this research focuses on case study in one country and one policy, it analyzes two schemes—the PVD and the RMF—simultaneously in a single study. This allowed the researcher to generalize the findings across two scenarios.

Qualitative research has been criticized in terms of reliability. Data analysis may be biased due to subjective opinions of the researcher such that the findings may be doubtful. This research attempts to remedy the issue through debriefing technique. The results were discussed with experts in the field in order to seek confirmation.

### **3.9 Summary**

This research aims to analyze tax expenditure policy using two retirement saving schemes—the PVD and RMF—in Thailand as a case study. It involved two parts. First,—implementation analysis sought to understand the factors that could facilitate or impede the use of tax expenditure policy. This was based on the problem of small coverage even though tax incentive measures have been adopted for more than a decade. The explanatory variables included policy content, the disposition of implementing agencies, the behavioral response of the target citizens, and the environmental context.

The second part aimed to understand the distribution of tax benefits. The respondents were classified based on income and age groups in order to seek the pattern of tax incentive utilization, and hence the tax benefits claimed by each group. It also seeks further to explore the sources of tax benefits by decomposing the elements into the effect of marginal tax, contribution rate, and income level. This served as an explanation regarding why tax expenditure policy in the case of retirement savings is regressive (pro-rich).

## **CHAPTER 4**

### **BACKGROUND OF RETIREMENT SAVINGS IN THAILAND**

#### **4.1 Introduction**

This chapter provides the necessary background in order to understand the need for voluntary retirement saving schemes. It begins by illustrating the negative impacts created by the ageing population trend in section 4.2. The policy responses concerning the National Plan for Older Persons, the Act on the Elderly, and the development of pension system are described in section 4.3. Lastly, sections 4.4 and 4.5 provide details regarding the relevant regulations, scheme coverage, and business structure of both the PVD and the RMF.

#### **4.2 Ageing Society in Thailand**

Thailand has been facing a demographic change as a result of a declining fertility rate and an increasing life expectancy rate. After the adoption of the National Family Planning Program in 1970 to control its population growth<sup>7</sup>, the birth rate in Thailand declined from 31.5 births per 1,000 people in 1970 to 12.0 births per 1,000 people in 2010 (Table 4.1). Meanwhile, the population in the country has tended to live longer due to advances in medical technology. The life expectancy at birth of male citizens increased from 57.7 years to 70.4 years, while the rate for female citizens increased from 61.4 years to 77.5 years.

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<sup>7</sup> The National Family Planning Program (NFPP) was set up during the administration of Prime Minister Marshall Thanom Kittikhajorn in 1970 to promote voluntary use of contraception in order to curb the social and economic impacts of the high population growth rate at that time.

**Table 4.1** Fertility Measures and Life Expectancy at Birth, 1970-2040

Year	Crude Birth Rate (per 1,000 Population)	Life Expectancy at Birth (Years)	
		Male	Female
1970	31.5	57.7	61.4
1980	23.2	58.6	65.5
1990	17.0	61.8	67.5
2000	12.5	70.0	75.0
2010	-	70.4	77.5
2020	-	72.6	79.3
2030	-	74.1	80.8
2040	-	75.3	81.9

**Source:** National Economic and Social Development Board, 2013; Prasartkul, 2013.

This combination of lower birth rate and longevity of life created a shift towards an aging society, in which the proportion of elderly citizens became larger and the proportion of younger working-age citizens became smaller. The National Social and Economic Development Board (NESDB) and Mahidol University revealed that Thai society had become “aged” since 2005, when the proportion of elderly citizens aged 60 years and above reached 10 percent of the total population. They forecasted that the situation would be more obvious when the society would be “completed aged” in 2021 and “super aged” in 2031, when the elderly would share 20 percent and 27 percent of the total population, respectively.

There were, at least, two implications associated with the living quality of aged citizens. First, the elderly needed to rely on their financial assets instead of receiving money from their offspring. John Knodel and his colleagues estimated that, in Thailand, there would be an average of 2.2 living children per one family, compared with 5.1 living children a few decades before (Knodel, Chayovan and Siriboon, 1992). The percentage of having two children per one couple would increase from 8 percent to 58 percent, while the percentage of having five children and above would decrease from 56 percent to 4 percent.

Secondly, there would be an increasing imbalance in the taxing and spending for social welfare. The declining proportion of working-age citizens suggested that the government would be able to earn tax revenue from a smaller size of taxpayers, while it would confront a growing size of social expenditure needed to support healthcare and other forms of social assistance to the elderly. This was indicated by the Potential Support Ratio (PSR), or the relative portion of working-age citizens to the elderly, shown in Table 4.2. The PSR declined from 14.2 working citizens per one elderly person in 1990 to 12.5 in 2010. It was expected that the figure would fall to 5.4 in 2020 and to only 2.5 in 2040.

Given the likelihood that the family support system would be weakened and government assistance would be limited, it was increasingly important that Thai citizens would need to save for themselves while they were still active in the labor force. However, preparation for retirement had not been observed by that time. The Research Institute for Policy Evaluation and Design<sup>8</sup> conducted a survey regarding the attitude towards retirement preparedness and retirement savings behavior among Thai citizens age 40 to 60 years in Bangkok. The research found that around 64 percent of respondents knew about regular savings plans, but most of them started saving at the age of 42 years (Kilentong, Jitrmaneeoj, Chandravongpaisarn and Paweenwat, 2012). Respondents normally weighed short-term consumption such as purchasing homes or cars more than long-term well-being. Meanwhile, the rest—36 percent of the respondents—were optimistic, saying that they would be able to maintain their quality of life during post-retirement even though had not engaged in regular planning. Further, the samples faced certain risks of inadequate money, given that their assets would generate 34 percent of their current income, which was lower than the benchmark of 70 percent of income.

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<sup>8</sup> University of Thai Chamber of Commerce

**Table 4.2** Percentage of Population of Different Age Profiles and Dependency Ratios, 1990-2040

Year	Population (Million Citizens)	Percentage of Population			Potential Support Ratio
		Under 15 Years	15-59 Years	60 Years and Above	
1990	54.55	29.2	63.4	7.4	14.2
2000	60.92	24.4	66.1	9.5	11.1
2010	65.98	19.2	67.9	10.0	12.5
2020	68.13	16.3	62.1	18.5	5.4
2030	68.31	14.3	56.8	25.7	3.5
2040	66.00	12.4	53.3	31.1	2.5

**Source:** National Economic and Social Development Board, 2013, 2015.

**Note:** Calculation of the Potential Support Ratio was done by the author.

### 4.3 Policy Responses

In order to deal with the growing challenges from population ageing, the government adopted both corrective and preventive measures (Barr and Diamond, 2010: 26-31). The former referred to allocating old-age monthly allowances to assist the poor elderly that were unable to save enough during their working age. The latter regarded the use of incentives to encourage people to save while they were still active in the labor force in order to maintain their quality of life during retirement (Krongkaew, 2007: 34). Three major policy responses were the National Plan for Older Persons, the Act on the Elderly, and the development of the pension system in Thailand.

#### 4.3.1 The National Plan for Older Persons

The effort to address the issue of retirement well-being began in 1982 when the Thai government formed the first elderly council in Thailand, supported by the United Nations. The first National Plan for Older Persons (1982-2001) was developed

as a guideline for the treatment of the elderly. The foundation of the plan emphasized the importance of the elderly co-residing with their families, the values of respect for and taking care of the elderly by their children, and societal protection for those that cannot rely on themselves and their families.

Although the plan identified the general directions for supporting the elderly, there were no specific goals, strategies, or action plans (Jitapunkul and Wivatvanit, 2009: 66). The elderly's well-being had become a national agenda when it was included in the 1997 Constitution of the Kingdom of Thailand. The Article 53 stipulated that the "A person who is over sixty years of age and has insufficient income shall have the right to receive dignifiedly public welfare, public facilities, and proper assistance from the state."

In 1999, National Commission on the Elderly<sup>9</sup> was set up to be accountable for promoting the programs and policies concerning the elderly. The committee formed by public and private sectors issued The Declaration of Thai Senior Citizens, which was meant to raise the standard of living of the elderly and protect their human rights. In 2002, after the United Nation's World Assembly on Ageing in Madrid, the Second National Plan for Older Persons (2002-2021) was launched with 18 policy measures concerning five strategic areas: income security, knowledge and skills development, health promotion, family care, supportive networks, and employment of elderly. The key measures relating to income security for old-age citizens were:

1) Readiness preparation of the people for quality ageing

(1) Extend the coverage rate of old-age security to cover 95 percent of the work force, aged 30 to 59 years, regardless whether they are hired by employer (formal workers), self-employed (informal workers), or unemployed. Responsible agencies are the Ministry of Finance, the Ministry of Labor, the Ministry of Interior, the Bangkok Metropolitan Administration, and the Pattaya City Administration.

(2) Encourage and establish savings discipline in all ages by continually increasing the number of mutual fund holders, and the number of mutual

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<sup>9</sup> Currently under the administration of the Ministry of Social Development and Human Security

funds per one holder including the defined contribution funds. Responsible agencies are the Ministry of Finance and the Ministry of Education.

#### 2) Social safeguards for the elderly

Increase the proportions of the elderly persons that earn monthly income allowances provided by the government budget to 95 percent of the target. Responsible agencies are the Ministry of Finance, the Ministry of Social Development and Human Security, the Ministry of Interior, the Bangkok Metropolitan Administration, and the Pattaya City Administration.

### **4.3.2 The Act on the Elderly**

As mentioned earlier, a key measure that mitigated the problem of old-age poverty was to directly give-away money to assist the cost of living of the elderly. This is also known as old-age monthly allowances. This practice has been conducted since 1993 with a fixed amount of 200 baht per month for an elderly person. Later, in the year 2003, the Act on the Elderly was passed in order to expedite the revision of measures to ensure fairness in distributing the funds. The amount of monthly allowances was increased to 300 baht a month in 2000, and to 500 baht per month in 2007. Currently, the 2012 revision has adjusted the monthly allowances to range between 600 to 1,000 baht a month depending on the age of the individual<sup>10</sup>.

However, this made the government fiscally vulnerable. The budget used for the monthly allowances was not only affected by the incremental amount of allowances, but also by the number of elderly that subscribed to the program. According to the Department of Local Administration, under the supervision of the Ministry of Interior, the number of older citizens that applied for the program leaped from 1.77 million persons in 2007 to 7.34 million persons in 2013 (Table 4.3). The total budget spent on old-age allowances grew more than five folds, from 10.63 billion baht in 2007 to 58.35 billion baht in 2013.

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<sup>10</sup> The ladder began in 2012 that older citizens aged 60 to 69 would receive 600 baht per month, age 70 to 79 would receive 700 baht per month, 80 to 89 would receive 800 baht per month, and 90 and over would receive 1,000 baht per month.

**Table 4.3** Fiscal Spending for Monthly Old-Age Allowances, 2004-2013

<b>Year</b>	<b>Number of Subscribers for Old- Age Allowances (Persons)</b>	<b>Total Budget Spending for Old- Age Allowances (Million Baht)</b>	<b>Average Allowances (Baht per Person per Month)</b>
2004	441,238	1,591	301
2005	529,977	1,906	300
2006	1,086,484	3,921	301
2007	1,771,090	10,627	500
2008	1,772,666	10,620	499
2009	5,448,940	21,964	336
2010	5,652,837	32,779	483
2011	6,521,749	37,893	484
2012	6,798,802	52,537	644
2013	7,342,028	58,347	662

**Source:** National Economic and Social Development Board, 2014.

Given an increasing number of aged citizens, the Thailand Development Research Institute (TDRI) forecasted that, in the year 2020, the old-age allowances would double to 124.79 billion baht (Thailand Development Research Institute, 2012). The research institute gave warning over the stability of the elderly fund, indicating that the country needed to possess a sheer economic grow of seven percent per annum in order for the fund to be manageable.

### **4.3.3 Development of the Thai Pension System**

The preventive mechanism concerns the pension system, which serves as a vehicle for carrying savings in the current period for consumption during retirement. A pension system can be broadly classified according to two types based on the distribution method (paying money to the retirees). The defined benefit scheme refers to a program in which a retiree will earn a fixed amount of income on a monthly basis from the state for his/her lifetime after reaching retirement age. The amount of income

has a fixed formula that depends basically on the income base and the number of years employed, but not directly on the contributions that one made into the scheme. The defined contribution scheme is the program where the retiree will receive money from the fund based on their own savings plus additional profits or losses from investment.

Before the mid-1990s, the pension system was mainly the defined benefits scheme, funded by the state. Given the growing number of aged citizens and the shrinking number of working citizens that paid taxes, the economists were pessimistic that the government would face a heightened cost of funding, and the pension would sooner or later collapse. The effort to reform the pension system then shifted to the defined contribution scheme, which replaced financial assistance from the state by savings made by the citizens for their own benefits. The welfare of aged citizens, hence, would depend largely on how much savings these citizens accumulated during their working lives.

The Thai pension system includes four different schemes. The first two are mandatory, meaning that the workers are required to apply for membership. First, defined contributions scheme Old Age Pension Fund (OAPF), under the management of the Office of Social Security (SSO) has both defined benefit and defined contribution schemes. The scheme is mandatory, where the workers employed with an employer must be registered with the fund and make contributions according to the rate specified. The defined benefits scheme applies when the members make a savings for a total of 180 months, making retirees eligible to earn a monthly income of at least 3,000 baht for their whole life. Defined contribution scheme applies when the period is less than 180 months. In this case, the retirees will receive a total of accumulated savings plus investment returns. Secondly, the Government Pension Fund (GPF) is a defined contribution scheme that mandates all government officials to be members. The retirees will receive total proceeds that they have contributed to the fund.

Another is voluntary pension, where the workers must make their decisions to participate in the scheme. This scheme drew the attention of this study because it concerns the use of incentives and the behavioral response of the target citizens. Voluntary pension in Thailand includes the PVD, which is an employer-sponsored scheme, and the RMF, which is a tax-preferred mutual fund. In order to attract

participation, tax incentives are provided where the amount of contributions made into the fund is allowed to deduct assessable income before calculating tax liabilities. Further, when the proceeds are withdrawn at retirement age, the dividend or interest income as well as the profit from the sales of investment will be exempted from being taxed. A detailed elaboration of the PVD and RMF is provided in the following sections.

#### **4.4 Overview of the Provident Fund**

##### **4.4.1 Relevant Regulations of 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 2 to 15 percent of his/her wages. The Act requires the employer to sponsor the fund by adding an extra portion into the respective employee's account at the rate equal to or higher than the employee's saving.

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 15 percent of wages, but not exceeding 300,000 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 55 years or above. Such a treatment of tax benefits is the so-called EEE or tax-haven according to conventional terminology.

Later, in 2008, the global economy was affected by a financial crisis, driving the Thai economy into recession. In order to revive the local economy, the government used tax incentives to promote household savings and investment with an aim to promote capital market development and economic expansion. According to Ministerial Regulations No. 266, the contribution limit was raised to 500,000 baht per annum, while the contribution proportion of 15 percent of income remained.

#### 4.4.2 Current Situation of the Provident Fund

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. For nearly thirty years of its operation, the scheme has been plagued with low coverage among the target group. At the end of 2014, the number of fund members was 2.82 million persons. Compared to the number of formal workers registered under the Social Security Office, the PVD scheme covered 28.11 percent of the total, or 7.37 percent of the total workforce (Table 4.4). This indicated that more than 27 million workers had not been able to access this pension scheme.

Although one may argue that the number of fund members had grown by 7 percent on average during the last five years, which was higher than the number of insured persons under the SSO, however, such a growth rate was considered slow in terms of making full coverage. Roughly estimated, it would take more than nine years for this scheme to cover half of the formal workers, and nearly twenty years to cover all of the formal workers.

**Table 4.4** Coverage of the Provident Fund, 2010-2014

Coverage	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
Employed workforce	38.51	38.87	39.59	39.09	38.26
Proportion (%)	5.83	6.40	6.61	6.91	7.37

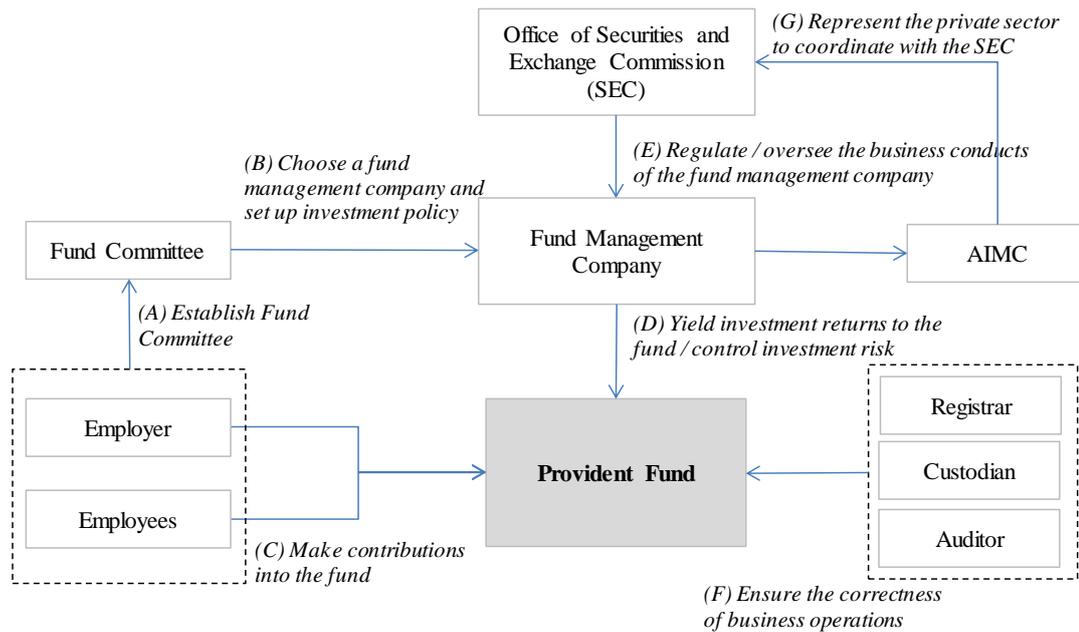
**Source:** Association of Investment Management Companies, 2015a; Social Security Office, 2015b; National Statistical Office, 2015a.

**Note:** Calculation was done by the author.

\*Unit in million persons.

#### 4.4.3 Structure of the Provident Fund Business

The key actors in the PVD business include a fund committee that covers the representatives of employees and employer, fund management companies that provide provident fund services, and a regulator that supervises the business conduct of the providers. Figure 4.1 depicts the involved parties in the PVD business.



**Figure 4.1** Structure of the Provident Fund Business

##### 1) Fund Committee

The fund committee is formed by selecting representatives from the employer and employees (path A). The group is responsible for selecting the fund management company that they view as appropriate (path B). Together with the fund management company, they created fund governing rules including the investable assets of the fund, the range of the contribution rate, and other operational issues. After the fund is established, the employer will be able to apply for membership application. The process is voluntary and employees are free to choose whether to participate or not. In practice, however, almost all employees will automatically apply once they pass the probation period. The members must allow the employer to deduct a portion of salary to be put into the PVD according to the agreed rules; meanwhile, the employer adds another portion of money to the employees' accounts (path C).

## 2) Fund Management Company

According to law, fund management companies must be financial institutions that hold a private fund management license. They are responsible for seeking the highest investment returns subject to acceptable investment risk according to the guideline of the fund committee (path D). At the end of 2013, there were 17 financial institutions that operated a provident fund business, of which all were fund management companies, except three: a commercial bank, a securities company, and an insurance company.

## 3) The Securities and Exchange Commission (SEC)

The SEC is responsible for supervising the fund management business and the registrar for the PVD. In terms of supervision, this regulatory entity issues relevant rules and regulations regarding fund management, and approves the private fund management license for the PVD providers, as well as an investor contact license for their staff. In terms of the registrar, the SEC approves the registration of the PVD and the amending of fund governing rules, and registers the list of fund committees and fund managers (path E).

## 4) Other Supporting Agencies

There are other parties involved in the provident fund business, including custodians, auditors, and professional associations (path F). The custodian is responsible for ensuring the safe keeping of the financial assets of the fund. The auditor has the duty of verifying the financial reports of the fund. Professional organizations like the Association of Investment Management Companies (AIMC) are a non-profit organizations that represent the asset management companies in the fund management industry. The practical difficulties faced by the financial institutions are acknowledged by the association, which will raise the issues and consult with the SEC or other government entities (path G).

## **4.5 Overview of the Retirement Mutual Fund**

### **4.5.1 Relevant Regulations of the Retirement Mutual Fund**

The RMF is a specific type of mutual fund embedded with tax privileges and penalty measures. The SEC and RD 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.

Similar to the PVD, the contributions made into the RMF will deduct assessable income up to 15 percent of the annual income. The contribution limit was raised in 2008 from not exceeding 300,000 baht to 500,000 baht. The investment returns accumulated in the fund and the profits from sales of investment units at the age of 55 years or above are granted tax exemption. However, there are a number of conditions that taxpayers must comply with. Participants are required to make continual savings by purchasing RMF units every year, at at least 3 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.

### **4.5.2 Current Situation of the Retirement Mutual Fund**

At the end of 2014, the number of RMF holders was approximately 410,000 accounts. Compared to the number of mutual funds of 4.36 million accounts, the RMF shared the small portion of 9.41 percent of the total fund accounts (Table 4.5). The scheme also failed to provide wide coverage, given that it penetrated only around 1.07 percent of the total labor force. The number was smaller than the PVD, which focused only on formal workers.

**Table 4.5** Coverage of the Retirement Mutual Fund, 2010-2014

<b>Coverage</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
RMF accounts	0.24	0.29	0.33	0.33	0.41
Total fund accounts	2.46	2.90	3.55	3.81	4.36
Proportion (%)	9.74	9.97	9.15	8.68	9.41
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, 2015c; National Statistical Office, 2015a.

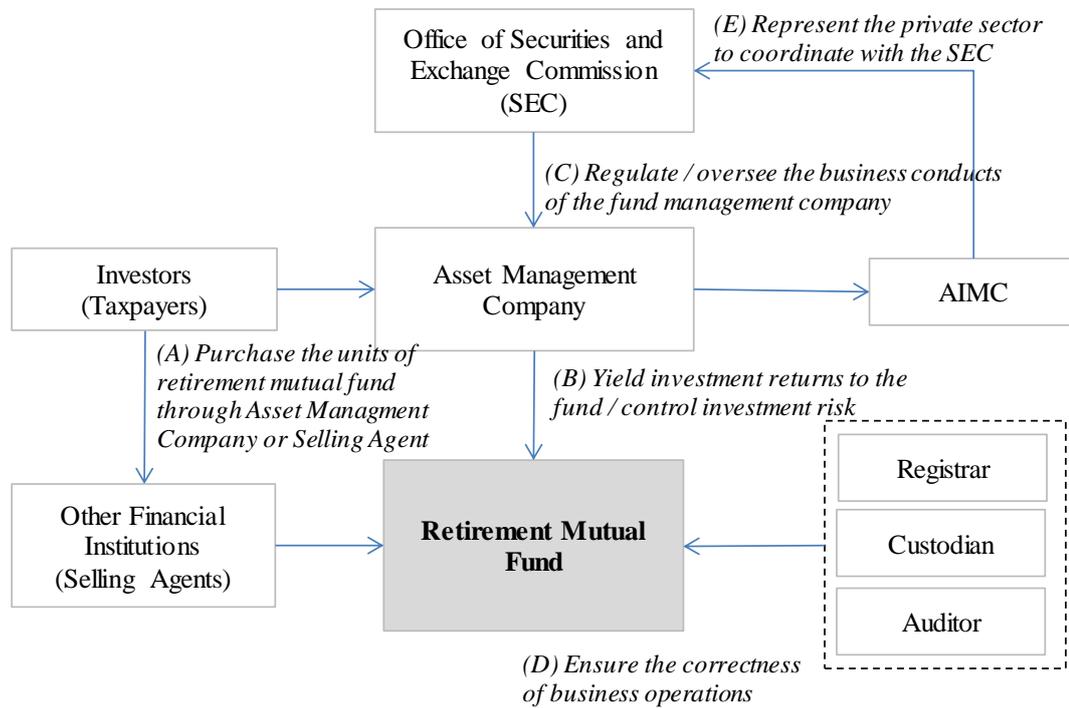
**Note:** Calculation was done by the author.

\*Unit in million persons.

#### **4.5.3 Structure of the Retirement Mutual Fund Business**

The structure of the RMF business is basically similar to that of the PVD. Some differences are described here. First, there is no dependency between employer and employees. Individuals may choose to contribute to the maximum limit of 15 percent, or the minimum of 3 percent of annual income depending on their decision. Being without employer-sponsorship implies that financial assets will grow based on the savings made only by the participants. Secondly, the providers of the RMF must be a fund management company that holds a mutual fund management license, unlike the PVD, where providers hold a private fund management license. Thirdly, the fund management company is able to appoint other financial institutions as selling agents, which are the representatives for the buying and selling transactions of the fund.

Interested persons must first apply for mutual fund accounts with the fund management company (path A). All financial institutions provide an Internet trading system, allowing investors to conveniently purchase or sell the funds online. Other processes are basically similar to those of the PVD.



**Figure 4.2** Structure of the Retirement Mutual Fund Business

## 4.6 Summary

The inevitable trend of population ageing—the increasing size of the elderly that need social assistance and the declining number of working-age citizens that pay taxes—raises challenges for governments to prevent the upcoming problem of old-aged poverty. It is anticipated that corrective measures in the form of monthly financial assistance for the elderly, or preventive measures in the form of a defined benefits pension, will not be sustainable. This urges governments to use tax incentives to encourage working-age citizens to save while they still can.

There are two voluntary retirement saving schemes in Thailand. One is the employer-sponsored PVD, in which tax incentives have been embedded since 1995. Another is the tax-preferred mutual fund that was enacted in 2001. Despite a few decades of implementation, both schemes have the problem of the slow expansion. At the end of 2014, the PVD and RMF covered only 7.37 percent and 1.07 percent of the total labor force, respectively.

## **CHAPTER 5**

### **IMPLEMENTATION ANALYSIS OF TAX EXPENDITURE**

#### **5.1 Introduction**

The previous chapter revealed that despite a few decades of using tax incentives, the policy outcomes are still far from being satisfactory due to small coverage of the policy. This chapter analyzes the implementation issues of tax expenditure based on four groups of explanatory variables: policy content, the disposition of implementing organizations, the behavioral response of the target group, and environmental factors. The analysis discusses each scheme separately: the PVD in section 5.2 and the RMF in section 5.3. Comparisons will be made in section 5.4 in order to identify the common factors that facilitate or impede the implementation process.

#### **5.2 Implementation Analysis of the Provident Fund**

##### **5.2.1 Policy Content**

Since public policy can be viewed as a tool for alleviating social problems by creating a behavioral change among the target group, whether an implementation become successful or not depends on how the policy can influence the target to take a desirable action. This section points three key issues observed from the implementation of the PVD. First, the incentivization mechanism becomes ineffective if it aims at the wrong group. Secondly, the objectives may not be attained if the policy lacks strong penalty measures for the early withdrawers. Thirdly, the availability of a feedback loop and policy revision mechanism positively supports the implementation process.

### Issue 1: Wrong target intervention

The PVD scheme involves two contributors: employees and employer. The employees are the target for the tax incentivization and their contributions into the fund are tax deductible. Meanwhile, the employer is required by law to help sponsor the scheme at a rate not less than the employees' monthly contributions<sup>11</sup>. However, there is no tax incentive for the employer since the law only allows the employer to record such funding as operational expenses in financial accounts, which resembles paying additional wages to the employees.

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, as an expert mentioned in the following:

Although provident fund is, according the Act, voluntarily established through mutual agreement between employer and employees, but in practice, it depends considerably on the decision of employers who are the owners of the companies. Once established, the employer must incur extra costs regarding the additional money paid into respective employees' account. The costs of wages will increase accordingly, which will affect profit and loss statement of the company. Besides, given that the assets in the provident fund are out of reach of the owner's hands, putting employer's contributions into the fund could mean cash outflows from the firm.

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<sup>11</sup> The information is based on the time when the data were collected. It should be noted that, 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. This development allows employers to lift the contribution constraints on their employees. Hence, the target citizens are able to make contributions up to the highest rate of 15 percent regardless of the level of the employer's sponsorship.

This incidence is not a narrow issue. The number of companies with the PVD available was only around 3 to 4 percent when compared with the size of companies registered with the Social Security Office (SSO) (Table 5.1). By registering with the SSO, it suggests that the companies have more than one employee, and this qualifies for applying the PVD as well. This means that the majority of employers in the country have not yet adopted the PVD for their employees.

**Table 5.1** Proportion of Companies using the Provident Fund, 2010-2014

<b>Coverage of PVD</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
PVD employers	10,996	11,663	12,753	14,058	15,433
Registered companies	395,924	404,195	409,977	417,011	422,748
Proportion	2.78	2.89	3.11	3.37	3.65

**Source:** Association of Investment Management Companies, 2015b; Social Security Office, 2015a.

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 chooses to limit the maximum contribution rate that his or her employees can choose. This tactic allows the company to conveniently comply with the legal condition, which requires it to 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 a small amount of money. In other words, the actual contribution range is influenced by the employer, although the laws allow the employees to save to a maximum of 15 percent of their month salary. One expert explained this issue as follows:

One reason that tax incentives do not work well on provident fund is because the employer is able to set the rules of the scheme. Contribution rate is the case. Although employees want to save at a high rate of 10 or 15 percent of salary, they may not be allowed only if the employer does not agree upon the rate. This is because, currently, the laws requires

employer to add extra money into the fund, at an amount not less than employees' contribution. For example, if an employee saves 1,000 baht a month, the employer must spend at least another 1,000 baht into the employee's account. As a result, high contribution rate could mean higher operational cost and cash outflows from the company.

The statistical data also indicated that the majority of fund members made their contributions within a limited range (Table 5.2). According to the SEC, more than sixty percent of employees contribute to the fund between 2 to 5 percent, while one-fourth save their money within a range of 6 to 10 percent, and around eleven percent of fund members contribute from 10 to 15 percent of their monthly salary.

**Table 5.2** Proportion of Provident Fund Members Classified by Contribution Rate, November 2014

<b>Contribution Rate</b>	<b>Share of Members</b>
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, 2015a.

This story suggests a problem of wrong target intervention. The manner in which tax expenditure policy fails to influence the employer, who is the key decision maker, is a serious issue in practice. Should the employer become worrisome over financial performance, the best choice is to turn down this plan. Thus, the incentivization mechanism for the tax expenditure policy fails to render an impact simply because the scheme is not allowed by the employer in the first place.

#### Issue 2: Multiple policy objectives of the program

The effective implementation of tax expenditure comes with a package of tax incentives as a reward for desirable behavior, and penalty measures so as to prevent the misuse of tax benefits. However, it would be confusing if the scheme contained other objectives 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 in order to subsidize the program without being able to expect the intended outcome of the citizens' well-being at retirement.

In the case of the PVD, a tax deduction is provided where the participants are allowed to reduce their assessable income according to the amount contributed to the fund up to 15 percent of their salary. Further, the investment earnings and profits from sales of the fund will be granted tax exemption if the money is withdrawn when members reach the age of 55 years or above. This helps gear the tax benefits towards the retirement savings objective.

However, the PVD scheme does not serve specifically the retirement purpose. According to the Provident Fund Act 1987, the scheme aims to provide financial security for the employees and their families should they be terminated from their jobs for any reasons: resignation from the company, retirement, disability, or death. It is unlikely that a strong penalty could be imposed even if the participants withdraw the fund early before reaching retirement age.

If an individual withdraws from the fund before retirement, taxation will be incurred based 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<sup>12</sup> will be reported as assessable income in personal income tax filing. Meanwhile, if the duration is five years or more, the proceeds will be subject to a special calculation method, called an enclosure form, according to the Notification of the Director-General of Revenue Department No. 45 in 1992.

Suppose that a participant earns the proceeds of 200,000 baht after 4 years of employment. He/she is required to report the amount in normal income tax form, called Por Ngor Dor 90 or 91, without receiving any tax deductions. However, when the participant has worked for 5 years, tax deductions according to the enclosure form will be applied and the proceeds will be reduced by the amount of 7,000 baht

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<sup>12</sup> Withdrawals from a provident fund include three components: the employee's contributions, the employer's sponsored money, and investment earnings (interest and dividends accrued within the fund). The first portion, the employee's contributions, is excluded from being taxed even in the case of early withdrawals.

multiplied by the number of years employed. In this case, it would be 35,000 baht (7,000 baht for 5 years). The leftover proceeds of 165,000 baht will receive another tax deduction for half of the amount, leaving 82,500 baht for tax calculation. Overall, the mechanism reduces the taxable income from the PVD by more than half of the total proceeds.

It seems as if the proceeds are taxed; however, it should be noted that certain forms of tax privileges apply to both scenarios. The first scenario is similar to the postponement of the tax payment to the subsequent period, while the second scenario is merely a tax deduction. Additionally, neither scenario requests early withdrawers to return the tax benefits they have earned.

The lack of penalties or a commitment mechanism can be viewed as one of the impediments for tax incentives to attain the retirement saving stimulation purpose. According to the expert interviews, the PVD has exhibited slow progress in its coverage because the members could leave the scheme soon after quitting their jobs, regardless of being retired or not, as stated in the following:

The reason why the coverage, or the number provident fund participants, grows rather slow is possibly due to the leakage of members. They can resign from provident fund anytime, either by changing the jobs or simply terminating the membership while still working in the same place.

This argument is supported by the statistical data collected from the Securities and Exchange Commission. Table 5.3 reveals the purposes for withdrawing the money from the PVD during the years 2010 to 2014. On average, the proportion of payouts in the case of retirement was around 44 percent. Meanwhile, the proportion of early withdrawals due to changing jobs was also substantial, with an average of 36 percent, and the proportion of other reasons such as quitting the fund was nearly 20 percent.

**Table 5.3** Reasons for Withdrawals from the Provident Fund

Year	Payouts (million baht)	Reasons for Paying Out Benefits (%)		
		Retirement	Changing jobs	Others
2010	41,466	44.9	38.5	16.6
2011	51,423	49.0	33.0	18.0
2012	57,125	45.1	37.7	17.2
2013	57,455	43.8	34.9	21.3
2014	63,236	38.9	37.7	23.4
Average	54,141	44.1	36.3	19.6

**Source:** Securities and Exchange Commission, 2015c.

**Note:** Calculation was done by the author.

With multiple objectives, a penalty measure can hardly be applied. As a result, the tax expenditure policy merely fails to promote long-term savings for retirement purposes because, no matter how the target group is motivated to join the program, they are allowed to withdraw the fund before reaching retirement age without any penalty.

#### Issue 3: Policy revision and its benefits for the implementation process

It should be noted that this issue does not directly concern the tax expenditure policy, given that the incentive and penalty measures for the PVD have barely changed since its start in 1995. Only a change in the maximum contribution limit occurred in 2008. Yet, it is worth addressing this issue because the PVD has seen numerous changes which have helped facilitate the implementation.

Policymakers are unlikely to perfectly design the policy at the beginning, and some practical difficulties can be revealed during the implementation process. Policy revision may be an important mechanism for mitigating the weaknesses in policy design. In the case of the PVD, the policy revision works through the coordination between the front-line implementers and the regulator. The officials from financial institutions conduct day-to-day tasks such as seeking clients, tailoring products and services to suit their needs, and helping to solve problems. Usually, they are in a better position than top-level policymakers in terms of recognizing the mismatch

between policy content and its application to the current context. One expert mentioned that the implementers voiced out their concerns to government-related entity when the problems tended to persist

Firstly, the difficulties in doing business are raised from our marketing officials<sup>13</sup> to their team leaders or head of provident fund business. If the problems are considered to be caused by unjustified regulations and if they happen repeatedly, our high-ranking officials will communicate these issues in the Association of Investment Management Companies (AIMC). Afterwards, the president and committee will call for a meeting with relevant officials from the Securities and Exchange Commission (SEC) to find ways to resolve the problems.

In the case of the PVD, there are several rounds of revision that aim to overcome the problems (Table 5.4). Among these, the most important revision may be the introduction of the “pooled fund” in 2009. Before this approach, PVD providers focused only large-scale companies whose asset size started from 100 million baht and more in order to justify their business cost. This essentially prevented relatively small and medium companies from having the funds. In order to promote equality in access to provident fund services, a new approach, called the pooled fund, was created. It is based on the concept of “commonality” where, instead of being owned by a single company, a policy could embrace a group of employers that willingly accepted the same investment policy. Although the employers were limited from customizing investment policies, the approach provided an advantage in terms of lowering the administration fee.

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<sup>13</sup> Generally, in the provident fund business, marketing official performs the duties of proposing the services to the clients (usually the owners of companies or human resource departments) and facilitating the establishment of provident fund.

**Table 5.4** List of Key Challenges and Policy Revision

<b>Challenges in Implementation</b>	<b>Policy Revision</b>
Small and medium-scale companies were generally overlooked due to unjustified asset size; otherwise, they were charged high fund management fees.	Introduce the “pooled fund” approach, which allowed more than one employers to contribute savings into a provident fund. The management fees incurred by the employer would be reduced.
An employer was reluctant to establish the fund since it concerned an increasing operating cost.	Reduce minimum rate of contribution from 3 percent to 2 percent in order to mitigate the concerns of the employer.
Employees were unable to earn a high saving rate, given that the employer deliberately limited the maximum rate in order to curb its sponsored contributions into the fund.	Revise the law by allowing employees to choose any contribution rate they preferred regardless of the employer’s choice. In other words, the clause that an employer needed to support the fund not less than the employee’s contribution was waived.

The conditional requirement, where the employer must help sponsor the fund at the rate not less than saving rate of the employees, creates a major concern over increasing operational costs, as mentioned earlier regarding Issue 1. In order to facilitate the fund establishment, the contribution rate was revised down to 2 percent from 3 percent of the monthly wage, although this point was tricky because it may not substantially affect the financial position of small-scale companies. However, it could be viewed as a bargain strategy to calm down the concerns of business owners.

This revision was not welcomed by the employer, but it also made it easier for the PVD providers to convince the employees to apply for PVD membership. One expert addressed this issue in the following, which was a considerable issue especially among low-income workers:

This may sound strange but it actually happens. We normally find employees who decline to join the provident fund even though we try to

convince that, by applying for the membership and setting aside their salaries, the employer will add another portion into their accounts, which is equivalent to an increase in salaries. It is not that they do not understand the benefits but, given their wages below 10,000 baht a month, every baht actually counts for their daily lives. Thus, sacrificing even a seem-to-be little money can be perceived as a big issue for them.

Another policy revision worth mentioning in this study was an attempt to separate the choice of the contribution rate of the employees from their employers. At the time of writing this research, the laws require employers to help workers save by adding an equivalent amount of money or more to their accounts. As discussed in Issue 1, this condition increases the operating costs for the company. In practice, the employer then chooses to limit the contribution rate to a low range.

In November 2015, the government announced the fourth version of the Provident Fund Act. The employees are now allowed to flexibly choose any contribution rate from a minimum of 2 percent to a maximum of 15 percent, regardless of the extent to which the employer sponsors the fund. Asking if this revision would help expand the PVD scheme, the experts perceived this change differently. One expert denied the benefits of this revision, citing that RMF already allowed the members to make up their retirement savings:

This change can be viewed as a response to fund members' request a long time ago, when the retirement mutual fund (RMF) was just started. I do not think this would significantly affect the contributions into the provident fund. Currently, if anyone wishes to save extra money for their retirement, they can easily overcome the employer's limit by investing through retirement mutual fund (RMF) scheme.

Another expert viewed the positive impact from relaxing this regulation, but an increase in contributions was expected to be minimal or moderate because it affects only the group of participants that has plenty of left-over money:

We may observe an increasing contribution amount to the scheme once this rule is endorsed. Participants will find it convenient to make regular savings. They just file a request to Human Resources Department for setting aside more portion of salaries, and that's all. This gives an advantage over RMF or other investment channels since they don't have to spend time visiting bank branches or logging online system to buy mutual funds. However, we don't expect the fund flows to be sizable. Only those who view the current contribution rate is too restricted and are capable of saving will prefer this change as a way to reduce their tax liabilities. This group may not be so much.

Whether the policy revision is effective or not is not the key message of this issue. Rather, it suggests that the feedback mechanism and the coordination between the implementers and the regulator are important for creating a chance to fine-tune the policy to suit the current context of implementation.

### **5.2.2 Disposition of Implementing Organizations**

Implementing organizations are a crucial element in the policy process since they actually turn policy into action. In order to achieve policy goals, top-down scholars pursue a control strategy by selecting an implementing agent whose goals align with policy, and supporting them with the resources need to perform their functions. Meanwhile, bottom-up scholars highlight that a certain level of autonomy should be given to the front-line implementers in order for them to judge the actions that suit local variations. In addition, implementation success is likely when the agents are willing to pursue the policy objectives.

Relevant explanatory variables are discussed within two issues. The first one deals with the advantage from utilizing financial intermediaries as implementing agencies. This private sector is highly capable in terms of having business motives that support the policy goals, and possessing its own resources in terms of technical ability and network. The second issue describes the deficiency of this approach because private business organizations may pursue commercial benefits such that their actions may not always lead to the scheme's expansion.

#### Issue 4: Advantages from using financial intermediaries as implementers

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 at around 0.25 percent of the asset size. Financial institutions, as PVD providers, view the tax expenditure policy as one of the tactics to convince prospective employees to apply for membership. The experts mentioned how they communicate with the clients in the following passage:

After the employer agrees upon establishment of the fund, we work with them to set a communication session with their employees. We tell them, basically, there are three benefits from applying for provident fund members. Firstly, the fund will help them create financial discipline, through a regular saving that would make them wealthy in the future. Secondly, they will earn employer's financial support which is, at least, equal to their monthly contributions. This is like an immediately increase in salary once they are fund members. And lastly, contributions help reducing tax liabilities so that they can preserve more wealth.

Furthermore, the relationship between the PVD provider and his or her clients leads to business opportunities where a variety of products can be offered. Several types of mutual funds can be suggested if the provider is a fund management company, while life insurance and healthcare insurance policies will be offered if the provider is an insurance company. Furthermore, if the provider is a subsidiary to a commercial bank, the situation will lead to an even wider range of products, such as deposits, credit cards, personal loans, housing loans, business loans, etc. These products are a potential source of revenue for the company and also the whole banking business, which may offset low fee revenues from the provident fund business.

According to Chandarasorn's (1997) management model, an adequate size of staff and appropriate training are significant for implementation. Using the private sector to implement the policy helps relieve the government from the burden of allocating a budget, setting up operational facilities, and recruiting staff members. The

technical skills of individual implementers can be built through a set of training courses and certification programs that are funded by the PVD providers themselves.

The regulator, the SEC, can mandate the PVD providers to develop the technical skills of their staff through professional licensing. Front-line staff members are required to earn a so-called Securities Investment Consultant (SIC) license before their duties. In order for one to pass the requirement, he/she must possess the knowledge of securities laws and regulations, principles of investment, and features of securities products. An examination set by the SEC must be passed with at least a 70 percent of total score to be qualified for an SIC license holder.

Apart from this basic requirement, the PVD providers also arrange extra training in order to equip their staffs with adequate technical knowledge and skill to perform the tasks. The training course is usually unofficial and takes only a few business days. After that, the staff will visit the clients with senior staff members in order to gain knowledge from the real job, as an expert mentioned:

We give a training course to every newly-recruited staffs. Topics that they need to know in order to do the jobs appropriately include what provident fund is and how the services be presented to the clients, our internal workflows for smooth coordination among different departments, as well as important laws and regulations concerning provident fund services. Not more than a week, these junior staffs will accompany their seniors to visit real clients. In the first step, they will learn from watching our experienced staffs present to the client. The process normally takes around 6 months until we start letting them take care of some easy sessions in the presentation. We believe that this on-the-job training is essential to build up their skills.

The network relationship among financial intermediaries is also an important resource that supports the scheme expansion. Commercial bank staff members, such as branch managers or relationship managers, regularly have a chance to make contact with potential clients. Occasionally, the request for provident fund services comes after becoming familiar with the business owners:

Relationship managers are assigned tasks of seeking potential clients and developing business with them. Their everyday jobs are to understand and think in advance of what the clients will need, and which financial products can be proposed. Sometimes, the client may not want personal loans, but they prefer some services that make their employees save, the relationship managers suddenly call us to notify this opportunity.

Another expert recalled the case of referrals from commercial bank branch managers, who may share the common goals of maintaining potential clients:

We have been regularly supported from main bank staffs in referring us prospective clients a number of cases a month. This, can be said, likes a teamwork. Although selling provident fund services is not their key performance measurement, but we all know that providing full services to a client if they way to prevent competitors from penetration.

Overall, using the private sector as the implementer allows policymakers to gain several advantages. First, the private sector has a natural motivation to seek a larger number of participants in order to earn management fees or to create an opportunity to sell a list of financial products. This scheme expansion also aligns with policy objectives. Secondly, it relieves certain tasks, such as recruiting and training staff, from the government. These financial intermediaries provide training programs in order to ensure that the staff is equipped with technical knowledge. Lastly, the network relationship among the financial intermediaries could also support the scheme expansion.

#### Issue 5: Implementers prefer competing for existing clients

The previous issue conveys a message that the private sector may be a potential candidate for handling a social program thanks to its business motivation and resources. It seems as if, at the end, policymakers can rest assured that these implementers will turn non-savers into savers, and make them save more for retirement.

However, such advantages do not mean that the outcomes will be in accordance with policymakers' expectation. The information from the expert interviews indicated that these business organizations may compete for existing clients from their competitors rather than seeking new ones. In other words, their actions might not always lead to scheme expansion.

The experts admitted during the interview that the fee revenue from the PVD was rather low such that the businesses inclined to seek well-known companies with sizeable assets rather than small companies that made them wait for the assets to be slowly accumulated. One expert admitted that seizing existing clients from their rivals was a normal business practice:

Capturing the clients from competitions is considered as an efficient way in doing business. We cannot reach our target just only by approaching new clients. Provident fund is a high-competition business. The fee is only around 0.2 percent of asset size. This is considered rather low comparing to mutual fund business that generates around 0.8 to 1.5 percent of asset size for similar fund management policy. Multiplying this low percentage of fee with low asset base would mean unacceptable business results.

Another expert suggested that approaching existing clients might be an easier way to get deals done rather than making new ones. This was because the employer (company owner) and employees were already aware of the benefits of the PVD:

Existing clients, in most cases, are easier to deal with than new clients. The owners, board of director, and also officials in human resources department are already aware of the benefits of the provident fund, while the members [employees in the company] are already educated. This shortens our lead time to get the clients into portfolio.

Consequently, this disrupts the implementation process since front-line implementers fail to commit themselves to the objectives of the scheme's expansion. Instead of focusing on the companies whose employees lack the PVD, financial intermediaries intend to compete for existing clients from their rivals. It is likely that, consequently, the scheme coverage will just turn out to show little progress.

Furthermore, it is unlikely that policymakers could mandate the private sector to prohibit such actions, given that competition is a normal practice in the business. One expert assessed that it was inappropriate for the regulator or government-related agency to give a hand regarding their business strategies to the private sector:

The Provident Fund Act clearly articulates the responsibilities of SEC that concerns a registration of newly-established funds, and supervising the actions of provident fund providers along with the code of conducts. If our business conduct makes no harm to the investors [fund members], then I don't think it would be suitable for the regulator to interfere our business strategies.

Asking if there was communication from the SEC as regulator to the Association of Investment Management Companies or PVD providers in setting up a mutual target to expand the number of PVD members, the experts that directly supervised the PVD expressed the idea that they were unsure about such action:

I recalled that I used to hear some talks about increasing the number of participants from people in the Association. But, I guess that it was just an idea or simply a loud thought. So far I haven't seen any target number or any blueprint to reach that target.

This issue can be interpreted as a negative consequence of utilizing the private sector as the implementer. Inconsistency occurs when "success" is defined differently between implementers and policymakers. For the private sector, the success is measured by the size of assets and PVD fund members, regardless of being new clients or taking from their competitors. This is opposite the viewpoint of the

policymaker—that success refers to increasing the number of PVD members for the whole country. In addition, it is difficult for policymakers to assert their influence on business strategies. While it is likely that policymakers could be able to ask for coordination to focus on seeking new fund members, it is unsure that the private sector will manage to agree with the request if that means limited business opportunities.

### **5.2.3 Behavioral Response of the Target**

Tax expenditure policy works through tax reduction as a mechanism to encourage the target citizens to change their behavior in a desirable way. According to the service utilization approach, successful implementation depends on the extent to which the target citizens are aware of tax privileges, and whether they consider joining the program. The following issue illustrates how the participants perceive the value of tax benefits, and how non-participants refuse to take action.

#### **Issue 6: Perception of the tax benefits of the PVD**

According to the case survey in this paper, the PVD was well accessed across the respondents. The participation rate was as high as 88.6 percent of the respondents. For the participants, tax expenditure policy barely played a role in their decision making. The participants mentioned that, comparing the claiming tax benefits and earning sponsored money from their employer, the value of the latter was more lucrative.

The contributions from the employer were generally viewed as doubling their savings, while tax benefits were perceived as having only a partial impact. 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 in his or her account.

Meanwhile, the number of tax benefits tax benefits yields relatively less value. Depending on the marginal tax rate, tax benefits can range from nothing to thirty-seven percent of the employee's contributions<sup>14</sup>. If the participant is entitled to deduct

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<sup>14</sup> The personal income tax in Thailand applies a progressive tax system, starting from 10, 20, 30, to a maximum of 37 percent.

1,000 baht from the assessable income, this will return a tax savings value between zero, 100, 200, 300, or 370 baht.

Being asked whether tax incentives have an influence on their decisions to make savings into PVD, more than half of the respondents replied similarly, saying that their main consideration was to earn the employer's contributions. Although tax benefits make the scheme more attractive, they earn more money from employers' contributions than tax savings. Two respondents mentioned the following:

The main source of benefits is from employer's contributions because it doubles my savings. For tax benefits, I am appreciated to take that. Because my salary is not high, anything that could reduce my expenses is good to me anyway. [Low-income, 29 years]

Earning contributions from employer is of the most important. It's like the employer increases my salaries by some percent. Reducing taxes is also another reason, but just being secondary to employer's contribution. If the value of employer's contribution is five out of five, I think value of tax benefits is three. [Middle income, 37 years]

Around one-fifth of the participants mentioned that they neither cared about receiving the employer's contributions nor about the tax incentives, but rather hoped to have a good quality of life after retirement, as expressed by two respondents in the following:

I apply for fund membership because I am quite concern about adequacy of money to be used during retirement. Provident fund system let me have financial discipline. A portion of salary is deducted into the fund on monthly basis. Otherwise, such money would have been spent for consumption and savings may not be made. [Middle-Income, 33 years]

I don't think earning employer's money or tax reduction would be substantial. It is just a fraction of savings. I plan to live as a single [unmarried], so having enough money is quite a big deal for people like me since there will be no spouse or kids that will take care of any bills when we get old. So I must accumulate money on my own. [High-income, 40 years]

Some of the participants expressed the idea that tax incentives had no impact on their decision regarding the contribution rate because the rate was specified by the employer, leaving them no choice:

I don't think having tax benefits could make me take additional contributions. This is because, in case of my company, contribution rate is already set by the company. Based the number of working years, if you have worked here for one year, you will be entitled to contribute at three percent of salary. If the number of years increases to three years, your contribution rate is adjusted to four percent. There is no option to choose more or less than that. [Middle-income, 45 years]

In order to confirm the influence of the tax expenditure policy, an alternative question was asked whether their contributions would have been reduced if the current form of tax incentives were removed. The respondents replied without hesitation— that their savings would have been the same.

Although I am thankful for tax deductible measure so far, but a lack of it would not make me change my mind as long as the employer is required to contribute into the fund not less than my portion. This is because I and other members earn more from the employer's contributions than from reducing taxes. Especially, for most workers who pay no taxes, they are on par simply because there is no tax liability to be paid at all. [High-income, 38 years]

This perspective is critical. It reiterates Surrey's (1970) argument that tax expenditure policy simply provides a windfall benefit by rewarding the action that would have been conducted anyway even without it. The information from the participants suggests that the incentivization mechanism has no impact. In the case of the PVD, the participants tended to value the employer's contributions and financial security more than the tax benefits.

The issue then moved to the perspectives of the non-participating group that made up 11.4 percent of the respondents in this research. The non-participants can be classified into three types (Table 5.5). The first participants, sharing 5.6 percent of the total, were self-employed. This group lacked an employer-employee relationship such that there was no fixed amount of monthly wage, making no match with the PVD scheme. The second group, sharing 4.4 percent of total, consisted of employees working in companies in which the scheme was not available. This excluded them from being able to apply for the scheme. The third group, sharing 1.5 percent of participants total, consisted of employees working in the company where the PVD was available, but they choose not joining the scheme.

It should be noted that the following content does not mention the insights from the first two groups because they were unable to provide their viewpoints on tax incentives. That is, the PVD scheme was simply not available to them. However, the insights from the third group are essential because they reflected the reason why they felt indifferent about the tax benefits.

**Table 5.5** Proportion of Participants and Non-Participants in the Provident Fund

Type	Number of Respondents	Proportion
Participants	364	88.6
Non-participants	47	11.4
▪ Self-employed	23	5.6
▪ No scheme available	18	4.4
▪ Did not apply for membership	6	1.5
Total	411	100.0

The liquidity constraint, or the situation in which a people have limited money to spend, is a key reason that made the group feel uncomfortable about setting aside their savings, even though they were aware of the ability to earn employer's contributions. Most of the respondents, who worked as blue-collar laborers or unskilled staff in big companies, mentioned a similar idea in the following:

I don't think I can make savings into the PVD. My wage is only 9,000 baht a month. Currently, I almost have no money left. There are a lot of expenses in daily living, including residential rental fees, foods and groceries, transportation. In addition, I need to send some money to my parents in upcountry. Saving into the fund, although it is good, would mean an even less cash to spend for me. [Non-taxed, 28 years]

Some respondents were pessimistic about the idea that saving in the PVD may make them lose money due to fluctuation in the stock market.

I know that the PVD will put my money in equity (stocks). There is a chance to lose my savings and I don't dare taking such risk. [Low-income, 45 years]

Overall, these insights seriously deteriorate the validity of the tax expenditure policy. The finding that the participants weigh the employer's contributions more but the tax benefits less suggest that such indirect public spending is wasteful. Tax benefits, which mirror a forgone tax revenue, are just given away to the action that could have been conducted anyway. Further, learning that the non-participants had financial constraints such that they were unable to join the program indicated that the policy is ineffective. Tax incentives fail to encourage the needy citizens, whose income is low, to begin their savings.

#### **5.2.4 Environmental Context**

External factors are beyond the control of policymakers or implementers, but they are able to create convenience or difficulty in implementing a program. Two issues can be observed in the case of the PVD. One is economic recession, which affects the ability of the employer, who is required to support the scheme. Another is that the conditional requirement issued by non-state entities is able to influence the establishment of the PVD.

##### **Issue 7: The risk from unfavorable economic conditions**

The PVD scheme is unique in that it involves the employer, who is the main sponsor of the fund. As mentioned earlier, that the employer holds power to approve the establishment of the fund, this actor, on the contrary, is able to dissolve the fund as well. This may likely occur when the company faces a financial constraint such that a prolonged sponsorship will undermine the sustainability of the business.

One expert referred to the economic situation in 2008 and 2009, when a number of companies requested to terminate their funds because their business faced losses and lacked cash flows to contribute to the scheme:

Occasionally, there were cases that employers asked to terminate the provident fund. This happened when the companies was going to face financial difficulty. I recalled that event that led to a widespread closure of the companies and funds backed in the year 2008 and 2009. The economic crisis emerged that the manufacturing orders from our trade counterparts are halted. Have no revenue but need to carry employees' wages, this deeply damaged financial performance until one day the cost overran the company.

The news agency, the Bangkok Post, reported in May 2009 that there were several industries that received negative impacts from the global financial crisis, including agricultural products, electronic parts, commerce, food and drink, real estate, among others. Thirty-six employers closed their PVD during the first quarter of 2005, which affected 2,239 fund members. At that time, 229 other employers expected to pause their contributions, which would affect the large portion of 50,606 employees.

According to the news source, the Chairwoman of Provident Fund Association stated the following:

Many business operators had suffered from economic crisis so that they had to find ways to curtail their labor costs in order to maintain the businesses. Contribution into the PVD was their target for cost reduction [since it was voluntary scheme]. We found a number of employers reduced their contributions to the lowest limit of 2 percent of wages, but were still unable to recover. Most of them terminated the provident fund or were expected to stop their contributions soon. (Bangkok Post, 2009)

The impacts of PVD closure can be observed from the number of employers, fund members, and the number of contributions to the scheme (Table 5.6). During the economic crisis of 2009, the outstanding number of companies with the PVD increased to 10,355 from 9,750 from the previous year. Although this was a benign growth rate of 6.2 percent, it was slower than the average of 11.4 percent before the crisis, and 8.3 percent after the crisis. Meanwhile, the number of fund members declined slightly by -1.4 percent, compared with an average growth of 7 to 8 percent during the non-crisis period. This increase in the number of employers but a decrease in fund members suggested that the companies that closed down the funds employed a large number of employees.

The economic crisis also affected the amount of savings into the PVD. Average contributions per member dropped to 15,098 baht in 2009, lower than 20,580 baht a year earlier. This translated into the sharp decline of -26.6 percent, contrasting the before-crisis period that showed an average growth rate of 11.6 percent.

The findings in the case of the PVD imply that environmental factors, such as the economic situation, can have some impacts on the implementation of tax expenditure policy. The unique feature of the PVD, being employer-sponsored, is the weakness. The scheme can be dissolved for some reasons, which subsequently affect the retirement savings of workers that are the target of the tax incentives. Hence, the policy failed simply because its mechanism was removed along with the closure of the fund.

**Table 5.6** Number of Employers, Fund Members, and Contributions

<b>Year</b>	<b>Employers</b>	<b>Fund Members</b>	<b>Contribution per Person</b>
2007	8,692	1,923,034	17,894
2008	9,750	2,056,764	20,580
2009	10,355	2,027,581	15,098
2010	10,996	2,244,625	13,825
<b>Average Growth</b>	<b>Employers</b>	<b>Fund Members</b>	<b>Contribution per Person</b>
Period 2004-2008	+11.4%	+7.9%	+11.6%
Period 2008-2009	+6.2%	-1.4%	-26.6%
Period 2009-2014	+8.3%	+6.9%	+2.8%

**Source:** Association of Investment Management Companies, 2015a, 2015b;  
Securities and Exchange Commission, 2015a.

**Note:** Calculation was done by the author.

#### Issue 8: Influences from other non-state entities

The objective to improve the coverage of the PVD scheme may not be influenced only by tax incentives. There are some organizations that have been able to impose conditional requirements that have forced employers to establish the PVD. The information from the expert interviews suggested that, before being listed as public companies on the Stock Exchange of Thailand (SET), they are not required to have the PVD as one of measures that upholds the well-being of their staff:

The Stock Exchange of Thailand sets a requirement that public companies must promote the employee well-being. Specifically, the companies must have the PVD available in order to be qualified for having their common shares listed on the SET.

The information disseminated on the SET website, on the Listing Information page, shows the same message—that public companies must report the establishment of the PVD on the date of the application. However, it should be noted that this rule applies only to the newly-listed ones, not the companies that have already been listed. One expert indicated that approximately one-fifth of the public companies do not yet have such a scheme for their employees.

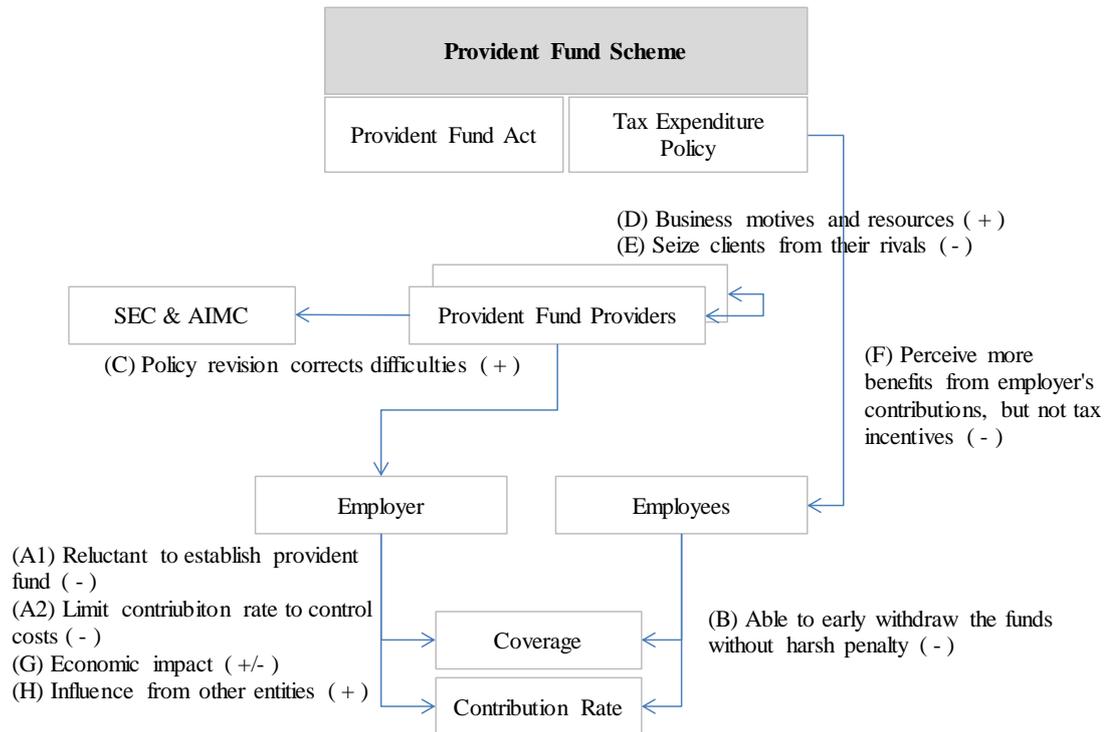
Apart from this, some multi-national businesses tend to instruct their subsidiaries to offer the PVD for the staff employed in Thailand, and one expert mentioned in the following passage:

Companies that are subsidiaries to foreign firms actively seek to establish provident fund, although their employee sizes are rather small, around 5 to 30 employees. This is because their mother companies abroad have policy of employee engagement, which is expected to increase the morale and thus prevent turnover rate of local employees. Contribution range is quite attractive. The range is around 5 to 12 percent, which is higher than Thai companies on average.

This short notice suggests that there are several means that reach the same end goals. The fact that these non-state entities can influence their counterparts in the establishment of the PVD suggests that the scheme can be expanded in an alternative way. Formal workers can participate in the PVD without the incentivization mechanism of the tax expenditure policy.

### **5.2.5 Summary in Case of the Provident Fund**

The section aims to understand the factors affecting the implementation of tax expenditure policy through the case of the PVD. The explanatory factors were grouped according to four domains: policy content, implementing organizations, target citizens, and external factors. The linkages to participation and contribution rate are summarized in Figure 5.1, where a positive or negative sign indicates whether the factors were supportive of the implementation process.



**Figure 5.1** Policy Implementation of the Provident Fund

The implementation of tax expenditure may be ineffective if incentives address the wrong target group. In the case of the PVD, the employer is a significant actor that decides whether the scheme should be established and how much contribution rate is allowed. If the fund is not allowed in the first place, there will be no way for the tax expenditure policy to yield its incentivization (A1). Even if the fund is established, the employer may limit the contribution rate to a lower range in order to curb the employer's sponsored contributions required by the law (A2).

The lack of penalized measures makes tax expenditure policy incompetent to promote savings for retirement. This reflects the multiple objectives of the Provident Fund Act—that the scheme originally aimed to provide financial security for employees in case of being terminated from their jobs, regardless of being retired or not. As a result, the participants are able to withdraw the fund early after receiving benefits from the tax deduction (B).

Policy revision is regarded as a supportive factor for the implementation process. The difficulties that may arise during implementation are raised for discussion with policymakers, and the policy may be adjusted in order to suit the circumstances (C).

Using financial intermediaries as implementers allows the policymakers to utilize not only their business motives to seek clients and expand the scheme coverage, but also to relieve the government from the burden of allocating a budget, recruiting and training staff, or building up operational facilities (D). However, the private sector may not always serve the purpose of the policy since they tend to seek a quick way to earn business performance; that is, competing for existing clients from their rivals rather than searching for new ones (E). The scheme, hence, is not expanded at the rate at which it should be.

One critical issue that was learnt from the behavioral response of the target citizens was that indirect public spending in the case of the PVD is wasteful. The participants tended to perceive the value of the employer's contributions more than tax incentives. Even worse, if the tax incentives were removed, the respondents would still have contributed to the fund (F). The non-participants, on the other than, were not affected by the tax incentives because they did not have enough savings left.

Lastly, environmental factors affect the implementation of tax expenditure policy in specific ways. Economic recession may threaten the financial viability of the companies that sponsor the PVD. Employers are likely to file a request to terminate the PVD, which is seen as voluntary, in order to reduce their operational cost (G). In addition, conditional requirements set by non-state entities like the SET and multinational businesses effectively influence Thai employers to establish the PVD (H). This is an alternative route for scheme expansion without any stimulation from tax incentives.

### **5.3 Implementation Analysis of the Retirement Mutual Fund**

#### **5.3.1 Policy Content**

The analysis of the retirement mutual fund revealed two issues concerning policy content. The first one reflected the fundamental problem of tax expenditure

policy—that it targets only taxpayers and excludes non-taxpayers by nature. This tends to limit the opportunity of the mechanism to deal with massive numbers of citizens should the workforce be shared mainly by non-taxpayers. The second one highlighted the importance of penalty measures as a commitment mechanism that directs the implementation towards attainment of policy objectives.

Issue 9: Theoretical limitation due to small base of taxpayers

Conceptually, the RMF aims to cover a wider scope than the PVD. The target covers not only formal workers, whose employer provides them with the PVD, but also formal workers that are not offered the fund and informal workers that are self-employed. In addition, the RMF allows the participant to contribute up to a maximum limit of 15 percent of his or her annual income, compared to the PVD, which is dependent on the guidelines set by a PVD committee. This may provide hope that the RMF will yield a greater coverage and contribution amount than the PVD.

However, it turned out that, in 2014, there were 330,942 RMF accounts in Thailand. According to the case survey conducted for this study, the participation rate in the RMF was 30.2 percent of the samples, smaller than the PVD, which covered 88.6 percent of the respondents. The contribution rate into the RMF was also lower at 2.32 percent of income, compared to 5.41 percent in the case of the PVD<sup>15</sup>.

One of the explanations is that tax expenditure has a fundamental deficiency—that it does not attract non-taxpayers (Surrey, 1970: 720). This can be considered by looking at the number of taxpayers in Thailand. In 2012, the country had around 38.5 million employed workers. Surprisingly, only 9.79 million or one-fourth of the total workforce filed personal income tax<sup>16</sup>. Even worse, the number of taxpayers was only 3.25 million people, or 8.44 percent of the total employed labor force (Table 5.7).

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<sup>15</sup> The information is provided in Table 6.1 in Chapter 6.

<sup>16</sup> The majority of workers in Thailand are in the agricultural sector, while some are low-income and self-employed, such as street vendors, and taxi and bike drivers. They are less likely to report their income since their transactions are made in cash and at a tiny amount per transaction. Further, if the workers earn less than 20,000 baht a month, their taxable income will be below the tax threshold, making them indifferent concerning whether to file taxes or not.

**Table 5.7** Amount of Taxpayers by Income Class, 2012

<b>Income (Million Baht)</b>	<b>Marginal tax (Percent)</b>	<b>Tax filers (Persons)</b>	<b>Proportion (%)</b>	<b>Share of Tax Revenue</b>
0.15 or below	Exempted	6,539,501	66.8	-
> 0.15 to 0.50	10	2,160,095	25.1	14.9
> 0.50 to 1.00	20	580,880	5.9	20.1
> 1.00 to 4.00	30	184,911	1.9	29.9
> 4.00	37	24,709	0.3	35.1
Total		9,790,096	100.0	100.0

**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 35 million workers, excluded from the scheme simply because they are not motivated by tax liability reduction. Furthermore, it is unlikely that each taxpayer will perceive the value of tax benefits to the same degree. The attractiveness of tax incentivization depends on the marginal tax rate of the individual taxpayers.

As Surrey (1970: 720) mentioned, the tax reduction mechanism is worth more for high-income workers at a higher marginal tax bracket than low-income workers at a lower bracket. Tax allowances from the contributions will release taxable income that would otherwise be charged at a tax rate. If a high-income individual in a 30 percent tax bracket spends 10,000 baht on retirement savings, he/she will receive 3,000 baht of tax benefits in return. Meanwhile, if the same amount is spent by a medium-income individual with a 20 percent tax rate, the tax benefits will be smaller at 2,000 baht.

This situation implies an even smaller scope of potential participants than the total size of taxpayers. This is because a large portion of the low-income group may exclude itself from the program due to perceiving a low value of tax benefits. The implementation of tax expenditure in the case of the RMF becomes challenging because no matter how good the efforts are, the coverage could be limited to the amount of taxpayers in the country.

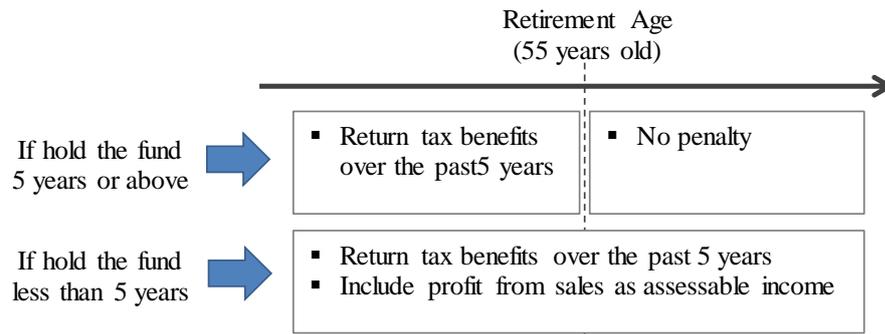
#### Issue 10: Necessity of commitment mechanism

Penalties are a significant component of the implementation of tax expenditure. The case of the PVD suggested that the lack of a penalty measure may prevent the policy to reach its goal. Tax benefits can be misused because the participants can early withdraw the fund for any purposes than retirement savings, after receiving tax benefits. The analysis of RMF highlights this issue by suggesting that a penalty serves as a commitment mechanism that directs the fund towards solely retirement purposes.

While the participants are allowed to claim tax deductions for their contributions to the RMF, and tax exemption upon withdrawal, they must comply with a few conditional requirements. First, the RMF must be carried until reaching retirement age, currently specified at 55 years. Secondly, an individual should have held the RMF for at least 5 years. Thirdly, the contributions must be made every year for at least 5,000 baht or 3 percent of the annual income, whichever is lower. The third condition has exceptions in case an individual earns no income in a tax year.

Should any of the aforementioned conditions be breached, an individual will be penalized. There are two conditions in which the charges will apply: one is when the fund is withdrawn before reaching retirement age; another is when the retirement age is met, but the participant holds the fund for less than 5 years (Figure 5.2). For the first condition, the degree of penalty depends on whether the person has held the RMF for a minimum of five years. If the minimum holding period is met, the participant is required to return all of the tax benefits earned from the RMF during the previous five years. The process can be done by contacting the Revenue Department or its local offices to recalculate the tax liabilities for each five years without taking into account the tax deductions from the RMF.

A somewhat stronger degree of penalty applies when withdrawal is made when the RMF has been held for less than 5 years. Either the case of early withdrawal or even reaching the retirement age is subject to the same penalty. The participant is required to return the tax benefits received from the RMF during the previous five years, like the previous condition. In addition, he/she must also report the profit from the sale of RMF units in his or her personal income tax form.



**Figure 5.2** Penalty regarding Withdrawals from Retirement Mutual Fund

The penalty measure makes the participants more reluctant to withdraw the RMF before retirement. This improves the implementation of the tax expenditure policy; after the fiscal resources are spent for subsidizing the activity, policymakers can become more confident that the participants will be committed to using such proceeds only after retirement.

However, charging a fine is not the perfect way to prevent early withdrawal. According to the data from the case survey, some of the respondents that sold the RMF units beforehand expressed their reason for violating the rules. One was a young worker that sold the fund after a few years of participation due to the need for a large amount of money:

I might mistakenly think that this retirement saving scheme would suit me. Back then, I was expecting to reserve some money for long-term spending purposes, while the scheme is expected to give me some investment returns in addition to tax savings. After two years, I reconsidered that it might take more than twenty years until I could eligibly use this amount of money. More than that, it would be better to spare some money for short-term needs such as paying loans for condominium, car, or other financial needs in my family. [Low-income, 28 years]

Another was the case of person in mid-career that faced financial constraints that, as she claimed, forced her to miss the contributions for two consecutive years:

I have several financial burdens such as paying for my kid's tuition fees, mortgage loans, and also paying life insurance premiums. As the regular expenses increase to a level that I can hardly afford, it is needed to reserve cash on the issues that are more immediate than long-term retirement well-being even though tax benefits must be taken back and income from capital gains must be taxed. [Low-income, 30 years]

Overall, putting in place penalty measures might support policy implementation since it incurs the cost of taking action against the will of the policy. However, should the participant face the immediate constraint that the opportunity cost of compliance—continuing the RMF, but being unable to consume what they want—is higher than the monetary cost of violation, they may choose to breach the conditional requirement.

### **5.3.2 Disposition of Implementing Organizations**

The findings in the case of the RMF are quite similar to those regarding the PVD. Financial intermediaries, as implementing organizations, are driven by their profit-seeking motives, which help expand the scheme coverage. The policymakers can also access a great deal of resources possessed by the private sector, including budget, staff, and operational facilities. However, their commercially-oriented manner may encourage them to sell a range of financial products, not just put the RMF as a top priority. Two issues are summarized here: one that describes the advantage from using the private sector; another depicts the disadvantage that implementers may lack commitment to pursue the policy.

#### **Issue 11: Advantages from using financial intermediaries as implementers**

Similar to the PVD, promoting the RMF is in line with the business objective of the private sector. Fund management companies earn a certain level of fee revenue depending on the complexity of the investment policy. Mutual funds with a low-risk investment policy such as fixed income funds, or with a passively-managed strategy

such as an index fund, generate fees ranging from 0.25 to 0.35 percent of the asset size. Meanwhile, funds that invest in foreign stock or with an actively-managed strategy will yield a fee revenue of around 0.95 percent of the asset size. The level is higher than PVD providers could earn.

Adding a tax-privileged fund like the RMF to the product lists is not viewed as burdensome. It can be understood as a specific type of mutual fund embedded with tax incentives and conditional requirements<sup>17</sup>. An One expert discussed this in the following passage:

The asset management companies are able to leverage their administrative tasks to embrace RMF. Most activities are the same. They are drafting investment policies, selecting securities, buying and selling securities, and administrative tasks. There are some additional tasks that we need to take: educating our team. We need to ensure that our staffs understand its features and relevant regulations in order to correctly communicate with the clients.

The government is able to exploit the advantages from their business strategies in the form of promotional campaigns and advertising in order to attract clients. Fund management companies attempt to create promotional campaigns to attract their prospective clients, using their own budget. From 2010 to 2012, fund management companies heavily boosted sales of the RMF units through promotional campaigns. Two major activities were observed. One was the reimbursement, in the form of cash repayment or extra mutual fund units, for the investors that purchased the RMF up to

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<sup>17</sup> Incentives include tax deductions for the purchases of fund units each year up to 15 percent of assessable income but not exceeding a specific amount; and tax exemptions for the sales of units after reaching the age of 55 years. Participants are required to purchase the units every year until withdrawals are made, at the amount of at least 3 percent of one's income. Early withdrawals are penalized in terms of returning tax benefits and, in certain cases, reporting the profit from sales as assessable income for taxation purposes.

a certain amount. Depending on market strategies, the reward ranged from 0.5 to 1.4 percent of the new investment amount. Hence, a 100,000-baht purchase of RMF units could earn rewards of at least 5,000 baht.

Another method was to allow the purchasing of the RMF through credit cards. Mid- to large-sized fund management companies usually cooperate with commercial banks to encourage clients to purchase their RMF through credit cards. This not only delays the actual payment by 15 to 45 days until the due date of the credit card, but also allows investors to earn credit card points up to 4 or 5 times the normal spending. For example, spending 1,000 baht with one's credit card by may convert into 40 credit card points, but when the same amount is spent for the purchase of 1,000 baht RMF, investors earned from 160 to 200 credit card points. Overall, these promotional campaigns can be considered attractive given that the investors could reduce their tax liabilities, earn instant monetary rewards, and earn substantially higher credit card points than normal.

Such campaigns were indifferent to price competition, in which the companies trimmed out their profit margin in order to attract more customers. Ultimately, the winners were likely to be large financial institutions that could afford the promotional budget, and the losers were small-sized firms. In order to prevent the excessive use of campaigns, the AIMC, in January 2013, issued Announcement No. 1/2556: Guidelines for Promotional Campaign for Mutual Fund to limit 1,000 baht extent of the activities that could "stimulate, persuade, or attract investors in hoping to earn the gift-away premiums or privileges" (AIMC, 2013). As a result, the monetary rewards were reduced to not more than 0.2 percent of the contribution amount into RMF, and investors would not earn credit card points for the purchase of RMF units.

Although analyzing the impacts of limiting the campaigns to the contributions into the RMF is beyond the scope of this research, it seems as though this prohibition might to some extent slow down the expansion of the RMF. According to the SEC, the number of RMF accounts in 2013 was 330,942 accounts, representing an increase by 1.7 percent from the previous year (Table 5.8). This was a sharp drop from an average of around 16 percent during three earlier periods.

**Table 5.8** Change in Number of Retirement Mutual Fund Accounts, 2010-2014

<b>Year</b>	<b>RMF Accounts (Accounts)</b>	<b>Change (%)</b>
2009	207,203	n/a
2010	239,838	15.75
2011	289,423	20.67
2012	325,287	12.39
2013	330,942	1.74
2014	410,000e	23.89

In addition to utilizing the business strategies of the private sector, policymakers are able to gain benefits from the network among financial intermediaries. Normally, a fund management company is a subsidiary of a commercial bank. The relationship is created such that commercial banks take the role of selling agents for mutual funds. Given the widespread of bank branches across the country, this gives policymakers valuable resources, the operational facilities that cover the whole country, in an instant.

At the end of 2014, there was a total of 7,005 bank branches in the country (Table 5.9). Around 31.2 percent of them were concentrated in Bangkok, and another 31.2 percent were spread among the provinces in the central region. The rest were dispersed to the northeastern, northern, and southern parts of the country.

Overall, using the private sector supports the implementation of public policy. Implementers are driven by their motives to earn fee revenues from the managing the assets under the RMF category. In addition, these business organizations attempt to develop marketing campaigns in order to attract participants. This consequently helps expand the scheme coverage. Policymakers could also utilize the network of commercial bank branches as operational facilities that instantly distribute the scheme countrywide.

**Table 5.9** Commercial Bank Branches in Thailand, 2014

<b>Name</b>	<b>Bangkok</b>	<b>Central</b>	<b>Northeast</b>	<b>North</b>	<b>South</b>	<b>Total</b>
Bangkok Bank	300	347	164	168	136	1,115
Kasikornbank	325	355	169	152	125	1,125
Krungsribank	191	212	78	55	80	616
Krungthai Bank	292	339	221	175	169	1,196
Siam Commercial Bank	356	415	150	122	154	1,197
Others	720	518	169	155	193	1,755
<b>Total</b>	<b>2,184</b>	<b>2,186</b>	<b>951</b>	<b>827</b>	<b>857</b>	<b>7,005</b>
<b>Proportion (%)</b>	<b>31.2</b>	<b>31.2</b>	<b>13.6</b>	<b>11.8</b>	<b>12.2</b>	<b>100.0</b>

**Source:** Bank of Thailand, 2015.

#### Issue 12: Lack of commitment to promoting the RMF

Although the previous issue highlights the benefits from using the private sector—motivations to seek clients, business strategies of implementers, and network resources—they are insufficient for determining successful implementation. Similar to the PVD, private business organizations may not always commit themselves to promoting the RMF.

Within the fund management industry, there are a number of mutual funds that can be offered. The money market fund has the lowest investment risk, making it easy for the staff to communicate with investors. Foreign investment funds have moderate to high risk, but this type tends to generate higher fee revenues compared to other types of mutual funds. This prevents the fund management company from focusing only on the RMF.

Being asked if there was target expansion of the RMF, either in terms of asset size or number of participants, an expert replied that a fund management company is unlikely to focus only on the RMF, but rather on the expected fee revenue and profit of the whole company.

In fund management industry, the performance is measured mainly by fee revenues. We set the revenue figure we need to achieve first, and then allocate the target fees to each mutual fund category. With a number of information regarding the market trend, fee structure, and competitors' reaction, we then come up with the targeted asset size each product category need to provide. Neither the number of mutual fund accounts from RMF nor other fund types is counted in our business decision.

The RMF usually becomes a key product during the last few months of the year, when demand for tax savings is heightened. One of the experts explained that asset management companies tend to pick the "timing" to communicate their campaigns; that is, when the targets are expected to be sensitive to a specific issue. In the case of the RMF, the duration is usually chosen during the last two months of the year, given that the clients are in a rush to seek instruments to reduce their tax liabilities:

Tax liabilities reduction is used as the key selling point of retirement mutual fund. Although all asset management companies are well aware that the purpose of such scheme is to save for retirement, but they choose to highlight tax benefits in their communication message since the target clients are more attracted to this feature. In other words, the situation forces us. It is wasteful to broadcast the thing that clients do not give importance to; retirement well-being in the future vis-à-vis tax savings in the present. As a result, the RMF is normally promoted during the last two months of the year, where workers start to think about tax-saving instrument before the year ends.

Another expert added that the low prioritization of the RMF relative to other funds can merely be a part of business strategy. Some asset management companies focus on certain fund types that reflect their strength while ignoring others that are weaker than the majority of competitors:

Not all asset management companies equally give importance on promoting RMF. In case of large fund houses, they are with huge client base such that the economies of scale can be reached. They are able to devise a range of investment policies for retirement mutual funds – fixed income, equity, mixed fund, and foreign investment – and also advertising to promote their tax-saving funds. However, fund management company whose client bases are small may find it unjustified to launch promotional campaign. Similarly, those houses whose performance (historical investment returns) of RMF is poorer than their rivals may choose to promote other mutual funds instead.

It is even more challenging to make the RMF a top priority among the commercial banks that are selling agents. At this level, commercial banks normally have a greater range of financial products—savings and fixed deposits, debit cards, life insurances, corporate bonds, personal loans, home loans, etc. According to the interviews with experts, the bank staff is forced to achieve its revenue target by continuing to propose life insurance, personal loans, or debit cards with saving deposits first:

It is unlikely that the staffs at bank branches will always offer mutual funds or even specifically RMF, since they are assigned to sell other financial products as well. The top priority one is life insurance policies (bancassurance) that generate substantial fee revenues to the bank. Another high-margin product is debit card altogether with saving deposits, which is less complicated than mutual funds in the views of clients. Mutual funds will become increasingly popular when there is kind of a rush-in to buy stocks, while RMF will receive the strongest interest during the year-end.

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. An additional question was asked whether there was coordination

between government agencies and the private sector to boost the number of participants. Unfortunately, one expert replied that there was no such mutual planning. It was also considered preferable for the government not to intervene in the private sector's business strategy.

I haven't heard any news about setting up the target number of participants in RMF. However, it would be inappropriate should the businesses need to take the social goals like that. Anyway, if the government asks for cooperation, we will try our best efforts, but there is no commitment to achieve such target.

Overall, although asset management companies have natural motivation to expand the scheme in order to earn fee revenues, there is no guarantee that these business operators will always set the RMF as a top priority. The lack of commitment may stem from the strategic decisions to prefer other financial products, given that the firms see them as more suitable to the situations. According to the bottom-up framework, policy goals are likely to be attained when the implementers are willing to lend their support. On the other hand, a lack of strong commitment means that the required actions to support policy are unreliable and the attainment of goals is not assured.

### **5.3.3 Behavioral Response of the Target**

The RMF is an interesting case for the analysis, given that the scheme is different from the PVD in certain aspects. Unlike the PVD, whose contribution rate has an influence on the employer's financial budget, the RMF allows the choice to be completely considered by the participants. One may choose to contribute up to the limit of 15 percent, letting them enjoy the most from the tax privileges. Further, the timing of contributions made into the RMF is dependent on the participants' decision since the amount is usually not deducted from the savings account on a monthly basis as in the case of the PVD. As a result, the RMF is obviously exposed to the perception of individual citizens.

According to the survey in this research, out of a total of 411 respondents, 287 respondents indicated that they did not save with the retirement saving scheme. This turns into a rather high non-participation rate of around 70 percent. In terms of the implementation analysis, this can be considered a good situation for understanding the insights of the target citizens, who are not attracted by the tax incentives provided by the RMF.

#### Issue 13: Perceptions of the RMF and tax privileges

This section begins with the insights of the non-participants that represented the majority of the samples. Although the respondents demonstrated no participation for a variety of reasons, the notion of the service utilization approach suggests that those reasons can be classified into two groups: a lack of awareness, and a lack of consideration. The former refers to the situation in which the respondents replied that they had no idea what the program objective was, while the latter occurred when the respondents declined to join a scheme with any personal constraints.

It is interesting that a pattern of reasons can be observed when they are classified along with the income range (Table 5.10). More than half of the non-taxpayers mentioned that they were not aware that 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. This group mainly consists of small-scale business owners such as food stalls, blue-collar workers in a factory, taxi drivers, motorbike riders, and also white-collar office workers that are hired for junior positions. This group generally earns less than the average of 20,000 baht a month. Taxable income is likely to fall below the 150,000 baht threshold after deducting personal exemptions and occupational expenses as allowed by the laws (see tax rate and its threshold in Appendix B). Hence, they incur no taxes due to normal provisions of the tax structure. As a result, it is not worthwhile for them to participate in any tax saving program.

**Table 5.10** Reasons for Not Participating in the Retirement Mutual Fund, Classified by Income

Reasons	Distribution			
	Non-taxed (N = 44)	Low (N = 117)	Middle (N = 102)	High (N = 24)
<b>Lack of Awareness</b>	<b>51.0</b>	<b>10.1</b>	<b>7.4</b>	<b>7.7</b>
▪ No information	51.0	6.2	3.7	-
▪ Not understand	-	3.9	3.7	7.7
<b>Lack of Consideration</b>	<b>49.0</b>	<b>86.0</b>	<b>92.6</b>	<b>92.3</b>
▪ No tax liabilities	10.2	-	-	-
▪ Not enough savings	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

The low-income group has a problem of 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, as suggested in the following passages:

It is difficult for me to make savings in any month since day-to-day living expenses consume almost all of my salary. But if I have money left, I still have no idea why should I spare to use during retirement when the present is more important. [Low-income, 27 years]

Savings specifically for retirement is not my consideration now. There are a number of circumstances that need my money in a more immediate term, for example, paying my child's tuition fees, taking care of my parents, paying mortgage loans, etc. My income tax is only 10 percent, which may not useful to use RMF to save taxes and prevent me from using my own money in time of need. [Low-income, 33 years]

The middle- and high-income groups have different challenges. They tend to compare the benefits and opportunity costs that occur from taking action. A large portion 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:

I haven't invested in the RMF, even though I know that I can save a lot of tax payment. Currently, I am thirty years old. So, it means that I need to stick with the funds for at least 25 years until I am qualified for tax-free withdrawals. That's too long because I am not allowed to use my own money [without paying penalties] until retirement. In addition, the laws do not allow the RMF to pay dividend, meaning that there will be no money returning back to me for this long period of time. [Middle-Income, 30 years]

I still determine whether I should participate because, once my RMF account starts, I have to purchase the units of RMF every year until reaching 55 years old. This means a long-term obligation. It is hard to assure myself that I'm not going to use big money before retirement. [Middle-income, 28 years]

This point highlights that citizens, as policy recipients, are rational actors that make an informed decisions. The monetary benefits from tax liability reduction may not be enough to trade-off with the concerns, especially the flexibility in using money urgently. The respondents are afraid that they may come across events that need large funding. This may force them to early withdraw the RMF the, and hence violate the rules.

Table 5.10 also indicates the proportion of non-participants that mentioned that they preferred other tax deduction methods to the RMF. This reason was shared by a sizable portion of around 36 to 54 percent of the taxpayers in each group. In Thailand, there are a number of tax deductible items that taxpayers can choose. These include, for example, allowances for mortgage interest that aims to promote home ownership, allowances for life insurance premiums that encourage insurance coverage,

allowances for donations to charitable organizations and educational institutions that promote social development, and allowances for investment in long-term equity funds that promote capital market development.

A competing tax expenditure policy that is worth mentioning here is the allowances for the purchase of the Long-Term Equity Fund (LTF). This is also a tax-preferred mutual fund established in 2004 to promote long-term investment in the 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 deductions up to 15 percent of the annual income. The difference is that it requires a short holding period of five calendar years compared to the RMF, which requires holding until retirement. Should the target be 35 years of age, it is advisable for him or her to spend his or her savings on the LTF until the maximum limit first. Another condition that is favorable is that the LTF does not require annual purchases of the fund. Hence, it is easier to comply with the guidelines than with the RMF.

The respondents viewed these conditional requirements of the LTF were superior to the RMF. The shorter holding period gives them flexibility to withdraw the money should they need it earlier than when retired. Some of the respondents mentioned the advantage of a shorter holding period in terms of earning multiple rounds of tax benefits:

LTF is superior in terms of a shorter holding period. It means that in the next four years or more, I can withdraw the fund without being penalized. The proceeds can be used for more immediate needs such as medical expenses for my parents or funding for my business. In an extreme case, I can hold LTF until retirement which makes me on par comparing to RMF. Flexibility is important for those who may need money in short to medium term. [High-income, 40 years]

Both are the same in terms of helping me reduce taxes. LTF is preferable since it requires a shorter holding period of five years, while RMF needs me to withdraw at retirement age, which is more than 20 years from now. Being able to sell in the next few years mean that, if the policy continues

indefinitely, I can re-invest the proceeds to into tax-preferred funds and earn multiple rounds of tax benefits until retirement, comparing to RMF that gives only one time. [Middle-income, 35 years]

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: encouraging citizens to have life insurance, subsidizing citizens to have their own housing, supporting charitable donations, promoting capital market investment and long-term savings, etc. 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 in second place in their minds.

Overall, this section reaffirms one of the underlying weaknesses of tax expenditure policy—that it excludes non-taxpayers by the nature of the policy. This group sees no benefits from the policy simply because they have no tax liabilities to be reduced. In addition, it is not that all taxpayers will be interested in the program. Low-income taxpayers have financial constraints, one of which is that they tend to weigh concerns over their daily consumption or anticipated usage over the next few years rather than retirement well-being in the far future. Although middle and high-income taxpayers have higher savings capability, their participation rates are still limited. According to the case survey, they prefer spending money for other tax-privileged programs that they perceive as superior to the RMF.

#### **5.3.4 Environmental Context**

The case of the RMF reiterated that tax expenditure policy can easily be an area of dispute between two political coalitions with different belief systems. One may be called “welfare liberalism,” which supports the government playing a stronger role in promoting social welfare. Tax expenditure policy is, hence, supported by this group in order to prevent poverty of the aged and other social problems. Another group may be called “fiscal conservatism,” which prefers the efficient use of resources to prevent fiscal deficits. This group tends to argue against the use of tax expenditure policy, citing that it reduces government revenue and tends to benefit the rich over the poor.

#### Issue 14: The political arguments against tax expenditure policy

During January 2014, the news reported that the RD was reviewing the use of tax deduction and tax exemption measures in order to improve fairness. The benefits for the LTF and RMF were argued to be too great, allowing the rich to be able to reduce taxes more than the poor. Until early of June 2014, this topic became the talk-of-the-town after the RD and scholars from a leading university prepared to submit the revision to the government.

Shortly after, the Federation of Thai Capital Market Organizations (FETCO)<sup>18</sup>, on behalf of the private sector, issued an article named “Comprehensive Viewpoints of LTF and RMF” on June 13, 2014 in order to argue for the significance of disputed funds and their tax privileges (Federation of Thai Capital Market Organizations, 2014). The topics consisted of: a recap of the original intention of the LTF and RMF; benefits for the society and the country; equality of tax benefits; and the probable impacts if tax incentives were terminated.

The article highlighted the importance of the RMF in social development by reiterating that the government anticipated the threats of aged poverty amid the trend of population ageing. For this reason, it created the RMF with an aim to stimulate long-term savings dedicated to retirement well-being. The RMF would help citizens that are neither able to access the PVD nor the government pension fund scheme to possess financial security for themselves and their families. The article mentioned numerous benefits of the RMF, consisting of the following points:

- 1) Tax liability reduction leads to higher household consumption and/or savings.
- 2) Participants have opportunity to accumulate their wealth in the long-run, helping them to live with dignity after being retired.

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<sup>18</sup> Formed in 2004, the organization represents cooperation among 7 organizations related to the capital market: Association of Investment Management Companies (AIMC), Association of Thai Securities Companies (ASCO), Investment Analysts Association (IAA), Thai Bond Market Association (ThaiBMA), Thai Investors Association (TIA), Thai Listed Companies Association (TLCA), and The Stock Exchange of Thailand (SET).

3) The unfairness in retirement savings between (a) formal workers with a provident fund or a government pension fund and (b) formal workers without a provident fund and self-employed labor will be lessened since the latter gain access to the retirement savings vehicle.

4) Formal workers with a provident fund or government pension fund are able to accumulate their savings for retirement.

5) The social sector will be strengthened given that aged citizens will be able to maintain their standard of living after retirement.

Regarding the loss in tax revenue, the article mentioned that “the public sector will earn tax revenue indirectly from higher private consumption since households have higher savings left from tax liabilities reduction.” In addition, the government would be more likely to “reduce the fiscal budget needed to take care of aged citizens” should the citizens are encouraged to accumulate their wealth during working period” (Federation of Thai Capital Market Organizations, 2014: 4-5).

The article also argued that tax the privileges for the LTF and RMF were equitable in the sense that both the rich and the poor are able to use tax privileges up to 15 percent of their income. When considering in terms of the percentage change of net income due to tax savings, the FETCO showed that the poor gain higher benefits than the rich. For example, a taxpayer with a 300,000 baht annual income could reduce tax liabilities from 7,500 baht to 4,500 baht should he/she use tax deductions from LTF and RMF This translates into a 60 percent tax reduction. Meanwhile, a taxpayer with 5,000,000 baht of annual income could reduce taxes to 350,000 baht from 1,315,000 baht without tax privileges. The latter case earned only 26.6 percent of tax reduction (Federation of Thai Capital Market Organizations, 2014: 14)<sup>19</sup>.

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<sup>19</sup> However, according to the present author’s view, whether the poor or the rich have higher benefits from tax liability reduction depends on how we measure it. If the benefits are measured in percentage, the poor surely earn a higher rate of tax savings since they have a low base number in the calculation. On the other hand, if the benefits are measured in terms of amount, the poor save only 3,000 baht of taxes compared with the rich, who save taxes at 965,000 baht.

Lastly, the article claimed that should tax privileges be terminated, there will be a number of negative effects. First, the plan to increase financial literacy would cease since citizens are not motivated (by tax reductions) to learn about the benefits of long-term investment. In addition, the government would need to spend a fiscal budget on taking care of the old-aged poverty problem because, in the future, a majority of Thai citizens might fall into this category.

Overall, the FETCO insisted on retaining the tax privileges of both the LTF and RMF. For the retirement mutual fund, the federation contended that this social safety net will become increasingly important amid the trend of population ageing. A motivational tool such as tax expenditure policy is needed to let the target citizens begin investing and to learn about the benefits of the scheme. Accordingly, the debates cooled down in a very short period of a few days. The government decided to leave the tax incentives intact.

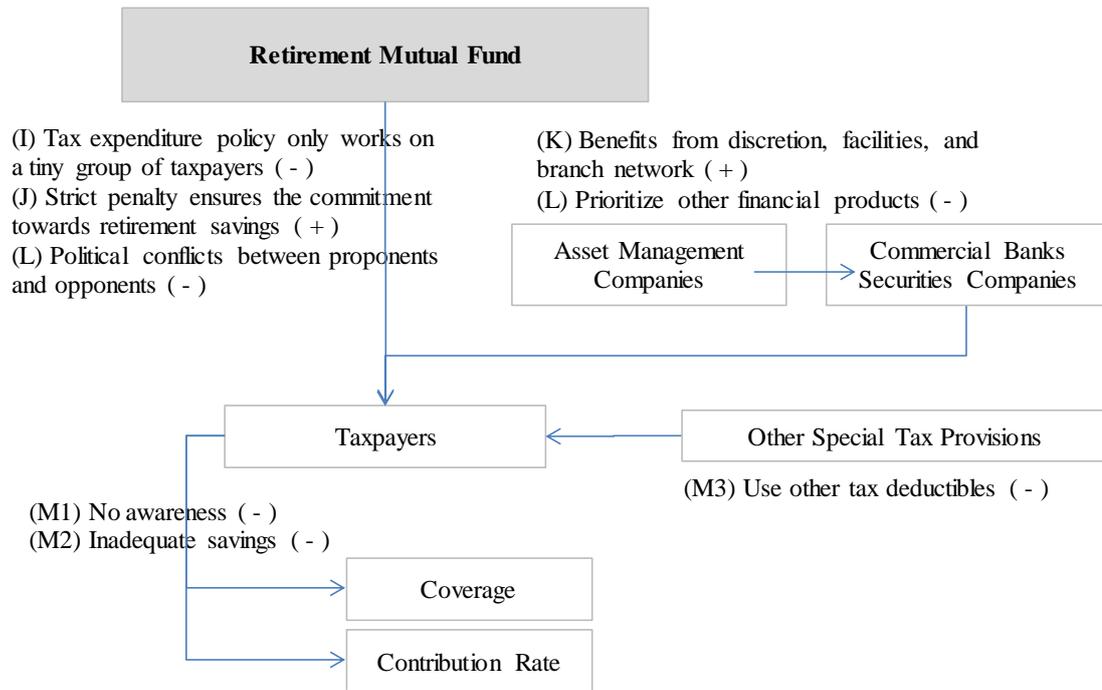
Overall, the situation provides evidence that there are parties that either support or oppose the use of tax expenditure policy. While the core belief concerning retirement savings was untouched, the secondary belief regarding the use of tax incentives to encourage such behavior was questioned. The results depended on the relative strength of the coalitions.

### **5.3.5 Summary in the Case of the Retirement Mutual Fund**

The RMF is a specific type of mutual fund embedded with tax incentives and penalties. The scheme aims to provide a long-term saving platform for self-employed, formal workers that are not covered by the provident fund, and formal workers that want to make extra savings. This section discussed how the factors based on four explanatory domains—policy content, implementing organizations, target policy respondents, and external factors—have impacts on the coverage of and savings into the scheme. Figure 5.3 spells out the linkages together with the positive or negative signs indicating the supportive or disruptive factors in the process.

The analysis of policy content addresses an inherent weakness of tax expenditure policy—that it covers only taxpayers, and essentially excludes those that are without tax liabilities. In the case of the RMF, this issue suggests that the policy will fail to render an impact if the proportion of taxpayers is small compared to the

size of the population (I). The case of the RMF showed that penalized measures are an important mechanism that incurs additional costs for those that may withdraw the fund before retirement. This helps ensure that the tax benefits spent on the program will be used for serving the policy objectives (J).



**Figure 5.3** Policy Implementation of the Retirement Mutual Fund

Asset management companies help expand the coverage and savings into the scheme due to their profit seeking motives. The policymakers utilize their strengths in terms of discretion, fund management infrastructure, and also network resources to easily spread the scheme countrywide (K). However, discretion is like a two-pronged sword because financial intermediaries have their own business purposes rather than social development goals. They may decide not to give priority to the retirement mutual fund scheme (L).

An interesting point of the retirement mutual fund is that it provides insights as to why workers are still reluctant to take action although tax incentives are available. This is not surprising knowing that non-taxpaying and low-income segments neglect the program because of a lack of awareness (M1) and inadequate savings (M2). This is because it requires out-of-pocket money before one gain access

to the tax benefits. However, a serious issue is highlighted when medium and high-income segments, who are capable of making savings, still decline to participate in the retirement mutual fund. This problem emerges because a number of tax allowances tend to compete with each other (M3). Taxpayers generally view them as tax reduction tools rather than as encouragement from the government for specifically desirable actions.

Lastly, the political environment affects the implementation of tax expenditure policy in the way that its existence depends on how opponents exert their influence and how proponents react to such arguments (L). Specifically, the former attempts to pull back tax benefits with an aim to improve fiscal balance and social inequity, while the latter draws out the benefits in terms of capital market development, economic stimulation, and social welfare as their rationale.

#### 5.4 Summary

Both the PVD and RMF have similarities in terms of being saving schemes embedded with tax incentives, being conducted through financial intermediaries, and being exposed to the voluntary decisions of the target citizens. Comparing these two schemes serves as a cross-check to identify the factors that are significant for the implementation process. The factors are listed in Table 5.11. The positive sign indicates a supporting factor, and the negative sign refers to an impediment.

**Table 5.11** Summary of the Implementation Analysis of Tax Expenditure Policy

<b>Domains</b>	<b>Provident Fund</b>	<b>Retirement Mutual Fund</b>
Policy Content	( - ) wrong target intervention (not incentivize employer) ( - ) no strict penalty to prevent early withdrawals ( + ) policy revision mechanism	( - ) tax incentive is attractive only to taxpayers, and excludes non-taxpayers by its nature

**Table 5.11** (Continued)

<b>Domains</b>	<b>Provident Fund</b>	<b>Retirement Mutual Fund</b>
Policy Content	( - ) wrong target intervention (not incentivize employer) ( - ) no strict penalty to prevent early withdrawals ( + ) policy revision mechanism	( - ) tax incentive is attractive only to taxpayers, and excludes non-taxpayers by its nature
Implementers	( + ) natural motivation to seek clients ( + ) technical ability of implementers ( + ) network resources among sister companies ( - ) no commitment (seize existing clients from rivals rather than finding new clients)	( + ) natural motivation to seek clients ( + ) discretion in creating promotional campaigns ( + ) network resources through selling agents (bank branches) ( - ) no commitment (give priority to other financial products)
Target Respondents	( - ) perceive that benefits are from the program (employer's contribution) rather than tax benefits	( - ) inadequate savings ( - ) concerned about opportunity costs (flexibility to use money when needed) rather than tax benefits
Environment	( - ) employers are vulnerable to economic conditions ( - ) other regulations are able to replace tax expenditure policy	( - ) political conflicts between fiscal conservatism and welfare liberalism

Clear policy objectives and guidelines are necessary for implementation to head in the right direction. The PVD is problematic because the main objective, according to the Provident Fund Act, aims for financial security due to termination from a job. It creates a rift in the implementation process since tax benefits can be used for the other purposes, not pertaining to just savings for retirement. In contrast,

the RMF has a clear policy. It uses penalty measures to discourage early withdrawal of the fund and, hence, prevent the misuse of tax benefits.

Understanding the cause and effect of tax incentives is extremely significant. The case of the PVD shows that implementation process can be derailed simply because the policy affects the wrong target group. Tax incentives are issued for employees, but not the employers that are the key decision makers. If the employers disapprove of the scheme in the first place, then it leaves no chance for the tax expenditure policy to yield an incentivization effect. The RMF also faces challenges from a valid causal relationship. This is because the tax reduction mechanism works only for taxpayers. The policy will eventually fail to create wide coverage if the proportion of taxpayers is so tiny compared to the total labour force.

Implementing organizations are critical to the implementation process. The use of the private sector supports the top-down implementation framework where the goals of implementers must align with policy objectives. This method also relieves the policymakers from certain tasks such as allocating a budget, recruiting and training staff, or building operational facilities. The discretion of implementers, as argued in the bottom-up framework, significantly drives the implementation process. Because they are familiar with the business, they are in the best position to devise business strategies that attract potential clients and help expand the scheme.

However, neither the business infrastructure nor the technical ability of implementers is insufficient to ensure implementation success. The findings from both the PVD and RMF suggest that the private sector may pursue business interests rather than policy objectives. In the case of the PVD, the implementers prefer to compete for existing fund members from their rivals instead of gearing their efforts to seeking new ones. The case of the RMF shows that the scheme is treated as one of the financial products from which financial intermediaries can choose. Other products—high-fee mutual funds and bancassurance—may be viewed as more important than the RMF. Hence, it is unlikely that the policymakers can rest assured that, when the private sector carries out the policy, the outcomes will be as expected.

The behavioral response of the target is significant, especially when the policy is voluntary in its nature. Target citizens are rational actors and heterogeneous in their responses to tax incentives. They tend to weigh benefits and costs before taking action.

The findings from the RMF are interesting in that the incentivized program will receive no attention if the tax benefits of a program are not justified with the opportunity costs of holding the fund until retirement, or relative benefits from other incentivized programs. In case of the PVD, the participants weigh their decisions more on earnings from the employer's contribution rather than tax benefits. This makes a be a serious concern for policymakers. It highlights that the fiscal resources spent through tax laws are wasteful since it rewards the behavior that could have been conducted anyway.

Environmental factors also play a significant role in determining the effectiveness of tax expenditure policy. In the case of the provident fund, economic crisis affects the decision of employers to consider terminating the fund, while the regulations from other organizations are able to force employers to establish the provident fund. These situations suggest that certain factors are able to replace the tax expenditure policy. In the case of the retirement mutual fund, tax expenditure policy is directly addressed by conflicts between the belief systems of the two coalitions.

## **CHAPTER 6**

### **DISTRIBUTIONAL IMPACTS OF TAX EXPENDITURE POLICY**

#### **6.1 Introduction**

This chapter aims to analyze the distributional effects of tax expenditure policy by using benefit incidence analysis, and to identify the sources of tax benefits. Specifically, the research questions deal with:

- 1) The extent to which different income groups or age groups earn benefits from tax expenditure policy.
- 2) The relative importance between marginal tax rate and savings in explaining the size of tax benefits.

The tax allowance pattern, in section 6.2, indicated the participation and contribution rate that was collected from the survey respondents. Subsequently, section 6.3 applies a benefit incidence analysis in order to portray the allocation of tax benefits among income and age groups. Section 6.4 further analyzes the components that translate into tax benefits. Lastly, key findings are summarized in section 6.6.

#### **6.2 Tax Allowance Pattern**

The tax allowance pattern indicates the participation and contribution rate in retirement saving schemes (Table 6.1). In the present study, participation in the PVD was strong, covering 88.6 percent of the respondents<sup>20</sup>, while variation was narrow,

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<sup>20</sup> The participation rate among the sampled respondents was higher than the country-wide coverage of the provident fund and RMF, as discussed in Section 1.1.3. This reflected the impact of the sample selection, which was geographically concentrated in the Bangkok area, where financial services are conveniently accessible compared to the rest of the country.

with 77.3 percent for the non-taxed group and from 86.2 to 91.0 percent among the low- to high-income taxpayer groups. The contribution to the scheme was 5.41 percent of income on average. Participation in the RMF was smaller, at 30.2 percent of the respondents. The gap ranged 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. Meanwhile, the non-taxpayers indicated no involvement in the RMF. This was not surprising since the group has no tax liabilities.

The contribution rate increased with income level for both schemes. The range was narrow in the case of the PVD, where the lowest income group indicated a 4.38 percent contribution rate, while the highest income group reported 6.22 percent. The range in the case of the RMF was relatively wider, where low-income taxpayers saved through this scheme at around 1.14 percent, while middle and high income taxpayers contributed 2.92 and 5.03 percent of their income, respectively.

**Table 6.1** Tax Allowance Pattern by Income Group

<b>Panel A: Provident Fund</b>		
<b>Group</b>	<b>Participation Rate (%)</b>	<b>Contribution Rate (%)</b>
Non-taxed (N = 44)	77.3	4.38
Low (N = 145)	91.0	5.11
Middle (N = 157)	90.4	5.89
High (N = 65)	86.2	6.22
Average	88.6	5.41
<b>Panel B: Retirement Mutual Fund</b>		
<b>Group</b>	<b>Participation Rate (%)</b>	<b>Contribution Rate (%)</b>
Non-taxed (N = 44)	-	-
Low (N = 145)	19.3	1.14
Middle (N = 157)	35.0	2.92
High (N = 65)	63.1	5.03
Average	30.2	2.32

The tax allowance pattern also increased with age (Table 6.2). Participation in the PVD was still consistent at the rate of over 80 percent for each age group. A discrepancy could be observed in the case of the RMF, where the group of young workers aged 20 to 29 years only slightly engaged with the scheme, as shown by the participation rate of 6.5 percent. Two middle groups with ages between 30 to 49 years exhibited a similar participation level of around 35 percent, while nearly half of the oldest group with ages 50 to 59 years saved through this scheme.

Both schemes exhibited a pattern of increasing contribution rates—that nearly-retired taxpayers tended to contribute a higher proportion of revenue to the schemes than younger groups. The range was concentrated around four to seven percent in the case of the provident fund, but varied from less than one percent to slightly above five percent in the case of the retirement mutual fund.

**Table 6.2** Tax Allowance Pattern by Age Group

<b>Panel A: Provident Fund</b>		
<b>Group</b>	<b>Participation Rate (%)</b>	<b>Contribution Rate (%)</b>
Young	87.1	3.99
Mid-age	94.9	5.19
Upper-age	80.6	6.40
Near-retired	83.0	7.06
<b>Panel B: Retirement Mutual Fund</b>		
<b>Group</b>	<b>Participation Rate (%)</b>	<b>Contribution Rate (%)</b>
Young	6.5	0.37
Mid-age	35.4	2.19
Upper-age	34.4	3.08
Near-retired	48.9	5.17

### 6.3 Distribution of Benefits from Tax Expenditure

#### 6.3.1 Classification by Income Group

The respondents were classified into four groups based on income range: non-taxed, low-income, middle-income, and high-income. The data regarding the participation and contribution rate were combined with income level in order to determine the amount of tax benefits. Multiplying income level by the contribution rate resulted in the contribution amount per person, based on the information of the respondents in this study (Table 6.3). Comparing the amount of tax liabilities between including and excluding tax allowances revealed the amount of tax benefits per person. Lastly, dividing the average tax benefits by average income yielded the percentage of tax benefits.

**Table 6.3** Tax Benefits Claimed by Income Group

<b>Panel A: Provident Fund</b>			
<b>Group</b>	<b>Contributions per Person</b>	<b>Tax Benefits per Person</b>	<b>% Tax Benefits</b>
Non-taxed	8,345	-	-
Low	22,997	2,300	0.5%
Middle	44,140	8,828	1.2%
High	93,231	27,969	1.9%
<b>Panel B: Retirement Mutual Fund</b>			
<b>Group</b>	<b>Contributions per Person</b>	<b>Tax Benefits per Person</b>	<b>% Tax Benefits</b>
Non-taxed	-	-	-
Low	5,152	515	0.1%
Middle	21,927	4,385	0.6%
High	75,462	22,638	1.5%

Both schemes showed that the contribution amount increased with income level. For the PVD, the non-taxed group contributed the lowest among the four groups,

but they gained no tax benefits since their wages lie in the zero marginal tax bracket such that tax deductibles have no effect. The contribution amount rose substantially across the groups. The respondents in the middle-income group made contributions twice as large as the amount from low income group. Similarly, the high-income group that pays 30 percent of taxes contributed more than twofold compared to the middle-income group. This translated into tax benefits—that the low-income group earns 0.5 percent of their income, while the middle-income and high-income groups earned 1.2 and 1.9 percent of their income, respectively.

For the RMF, the contributions also increased with level of income, at a greater degree than in case of the PVD. The middle-income group contributed around four times higher in baht amount than the low-income taxpayer group, while the high-income group contributed around three and a half times more than the middle-income group. As a result, the group of low and middle-income taxpayer earned 0.1 and 0.6 percent of income while the highest income group earned 1.5 percent of income.

The tax expenditure policy clearly distributed welfare to the high-income group of taxpayers (Table 6.4). The group shared 51.4 percent in the case of the PVD, and 65.8 percent in the case of the RMF, although its size was only 15.8 percent of the samples. On the other hand, the low-income taxpayer group earned a tiny portion at 9.4 percent in the case of the PVD, and 3.3 percent in the case of the RMF, despite the high proportion of more than one-third of all respondents. The non-taxed group, unfortunately, received no benefit from tax deduction because their income was already below the tax threshold.

**Table 6.4** Distribution of Tax Benefits by Income Group

<b>Panel A: Provident Fund</b>			
<b>Group</b>	<b>Proportion of Respondents</b>	<b>Contributions</b>	<b>Tax Benefits</b>
Non-Taxed	10.7	2.2	-
Low	35.3	20.0	9.4
Middle	38.2	41.5	39.2
High	15.8	36.3	51.4

**Table 6.4** (Continued)

<b>Panel B: Retirement Mutual Fund</b>			
<b>Group</b>	<b>Proportion of Respondents</b>	<b>Contributions</b>	<b>Tax Benefits</b>
Non-Taxed	10.7	-	-
Low	35.3	8.2	3.3
Middle	38.2	37.9	30.8
High	15.8	53.9	65.8

Table 6.5 illustrates the impact of taxation by comparing the distribution of gross income (column A) and income after taxes when tax allowances were excluded (column B). Meanwhile, the impact of tax deduction can be observed from the difference in the pattern between the net income excluding tax benefits and when taking into account tax allowances (column C). Taxation helps to improve social inequality by redistributing wealth by -2.5 percent, from the high-income group to the relatively lower-income groups. The effect of tax expenditure policy reverses the cash flows back by transferring +0.5 percent toward the high-income group.

The degree of income inequity, indicated by the Gini coefficient, improved due to the tax collection activities, as the figures decreased from 0.2691 to 0.2450. Tax benefits led to inequality, indicated by a slightly higher coefficient of 0.2505.

**Table 6.5** Impacts on Income Equality, Classified by Income Group

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

It should be noted that the overall impact of tax expenditures on income distribution was only marginal. This is because, in the current situation, the use of tax allowances relating to the retirement savings among Thai citizens is rather low. In the extreme sense, even if the participation rate were full and the contribution rate were at the maximum rate, it would translate into tax benefits of 1.5 to 4.5 percent of income should taxpayers have a marginal tax rate of 10 to 30 percent.

### 6.3.2 Classification by Age Group

The respondents were classified into four age groups: young, mid-age, upper-age, and nearly-retired. Based on the case survey in this research, the average contributions and tax benefits tended to increase with age (Table 6.6). Citizens aged 40 years or above (upper-age and nearly retired) were more likely to participate in the schemes than citizens in the relatively young groups (young and mid-aged).

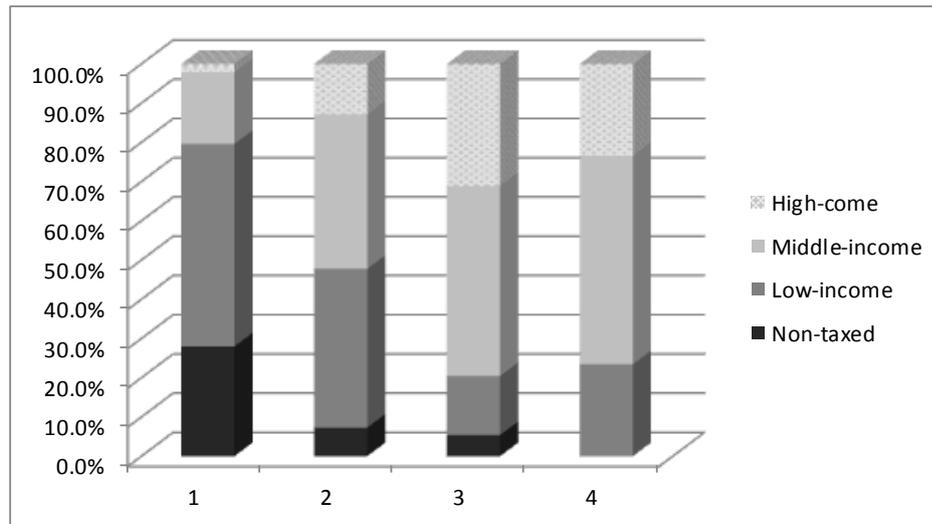
**Table 6.6** Tax Benefits Claimed by Age Group

<b>Panel A: Provident Fund</b>			
<b>Group</b>	<b>Contrib. per Person</b>	<b>Tax Benefits per Person</b>	<b>% Tax Benefits</b>
Young	18,871	2,448	0.5%
Mid-age	36,656	7,358	1.1%
Upper-age	60,435	14,693	1.6%
Nearly-retired	59,394	13,479	1.6%
<b>Panel B: Retirement Mutual Fund</b>			
<b>Group</b>	<b>Contrib. per Person</b>	<b>Tax Benefits per Person</b>	<b>% Tax Benefits</b>
Young	2,742	548	0.1%
Mid-age	17,528	3,830	0.6%
Upper-age	36,435	9,990	1.1%
Nearly-retired	49,596	12,188	1.4%

In the case of the PVD, the young group contributed the smallest amount of contributions per person, 18,871 baht per annum. Meanwhile, the average contributions from the two relatively-older groups were 60,435 and 59,394 baht per annum, which was around three to four times higher than the young group. Overall, this translated into tax benefits of 0.5 percent for the young-age group, 1.1 percent for the mid-age group, and 1.6 percent for the two oldest groups.

The case of the RMF has a similar pattern but to a stronger degree. The young-age group contributed only a tiny portion, 2,742 baht per person per year, compared to the other three groups. The nearly-retired group contributed the highest amount of 49,596 baht per annum, which was nearly twenty times higher than the young group. Overall, the young-age group earned slight tax benefits of 0.1 percent, and the benefits rose to the most at 1.4 percent for the nearly-retired group.

It should be noted that age range was positively correlated with income level. Figure 6.1 identifies the components of income range within an age group. The group numbers 1 to 4 at the bottom of the figure represent the young, mid-age, upper-age, and nearly-retired groups, respectively. It can be seen that a relatively low income range (shown in black and dark grey at the bottom of the column) can be observed in the first two age groups, whereas the high income range (shown in light grey and a dotted pattern at the top of the column) can be observed in the other two groups at a higher age. This is because, generally, the young group consisted mainly of early jobbers whose income level was usually low due to just beginning their careers. On the other hand, the older groups earned a relatively higher income, which may be explained by increasing level of salary increase after a number of working years.



**Figure 6.1** Income Range Classified by Age

Comparing the proportion of respondents to distribution of contributions and tax benefits across age groups signified who paid or earned wealth as a result of tax expenditure policy (Table 6.7). Overall, relatively younger group—young and mid-age—received small benefits from the policy, while relatively older groups—upper-age and nearly-retired—have a larger allocation of tax benefits. Specifically, the young age earned only 6.4 percent of the tax savings from the PVD and 2.3 percent from the RMF, although the group shared 22.6 percent of the respondents. Meanwhile, upper-age group claimed 38.6 percent of tax benefits from the PVD, and 41.6 percent from the RMF.

**Table 6.7** Distribution of Tax Benefits by Age Group

<b>Panel A: Provident Fund</b>			
<b>Group</b>	<b>Proportion of Respondents</b>	<b>Contribution</b>	<b>Tax Benefits</b>
Young	22.6	10.5	6.4
Mid-age	43.4	39.1	37.0
Upper-age	22.6	33.7	38.6
Nearly-retired	11.4	16.7	17.9

**Table 6.7** (Continued)

<b>Panel B: Retirement Mutual Fund</b>			
<b>Group</b>	<b>Proportion of Respondents</b>	<b>Contribution</b>	<b>Tax Benefits</b>
Young	22.6	2.8	2.3
Mid-age	43.4	34.3	30.5
Upper-age	22.6	37.3	41.6
Nearly-retired	11.4	25.6	25.6

It can be noticed from both the PVD and RMF that the group that shared the largest portion of tax benefits was the upper-age group, not the nearly-retired group. This is not because of the larger size of participants in the group. While the upper-age group had a 22.6 percent share of the respondents, it earned higher tax benefits of 38.6 percent of the total in the case of the PVD (+16.0 percent difference), and 41.6 percent of the total in the case of the RMF (+19.0 percent difference). The nearly-retired group earned only a smaller portion. The group, which shared 11.4 percent of the respondents, claimed only 17.9 percent of the tax benefits in the case of the PVD (+6.5 percent difference), and 25.6 percent in the case of the RMF (+14.2 percent difference).

When comparing the participation and contribution rate between both age groups, one may observe some irregularity. According to Table 6.2, the upper age group had lower participation than the nearly-retired group by 2.4 percent in the case of the PVD and 14.5 percent in the case of the RMF. Additionally, the group also had a lower contribution rate by 0.66 percent and 2.09 percent for both schemes. This may lead to a false interpretation—that the nearly-retired group should earn a higher proportion of tax benefits.

This discrepancy can be explained by the difference in the marginal tax rate. Due to the fact that tax benefits are the product of the contribution amount and marginal tax rate, those that pay lower contributions may still gain higher tax benefits should their marginal tax be substantially higher. The research explores further this issue by presenting the effective tax rate, which refers to the ratio between the tax liabilities and income level of members in the group (Table 6.8). The effective rate of

the upper-age group was 17.6 percent, higher than that of 14.7 percent for the nearly-retired group. This translates a similar amount of contributions into higher tax benefits.

**Table 6.8** Effective Tax Rate, Classified by Age Groups

<b>Group</b>	<b>Average Income</b>	<b>Effective Tax Rate</b>
Young	468,710	3.1%
Mid-age	688,315	6.7%
Upper-age	911,290	17.6%
Nearly-retired	855,319	14.7%

Lastly, Table 6.9 compares the distribution among three sets of income: gross income before tax; after-tax income without tax benefits; and after-tax income with tax benefits. The income distribution was tilted towards the upper-age and nearly-retired segments due to their having a higher level of income. The upper-age group, which shared 22.6 percent of the respondents, shared 29.1 percent of income before taxes, while 11.4 percent of the respondents in the nearly-retired group shared 13.8 percent of the income. On the other hand, the young group shared 15.0 percent of their income although their proportion among the respondents was higher.

Similar to the analysis in the case of income group, the effect of taxation redistributed wealth from the groups that had a higher income (upper-age and nearly-retired) to the less-wealthy groups (young and mid-age). The impact was the most for the upper-age group whose income share dropped by -0.7 percent, from 29.1 to 28.4 percent, while that of the nearly-retired group dropped by -0.2 percent, from 13.8 to 13.6 percent. The youngest group earned an income at +0.7 percent and mid-age groups earned an income at +0.2 percent. The tax expenditure also reversed the impact of taxation. The income distribution of the upper-age group increased by +0.2 percent, resulting in a -0.5 percent net effect. The nearly-retired group took +0.1 percent back, putting them almost on par with the distribution of income before taxes.

**Table 6.9** Impacts on Income Equality, Classified by Age Group

<b>Group</b>	<b>Proportion of Respondents</b>	<b>Gross Income before Taxation (A)</b>	<b>Net Income excl. Tax Benefits (B)</b>	<b>Net Income incl. Tax Benefits (C)</b>
Young	22.6	15.0	15.7	15.5
Mid-age	43.4	42.1	42.3	42.2
Upper-age	22.6	29.1	28.4	28.6
Nearly-retired	11.4	13.8	13.6	13.7

#### **6.4 Decomposition of Tax Benefits**

The difference in tax benefits, where a group with a higher income earns more than another with a lower income, is attributable to differences in the marginal tax rate, as well as the contribution amount. Making a larger amount of savings does not guarantee that the participant will earn higher tax benefits. On the other hand, a smaller amount of contributions can translate into higher tax benefits if his/her marginal tax rate is substantially higher.

In order to understand the sources of tax privileges, this section decomposes tax benefits into the three elements: marginal tax rate, income base, and contribution rate. As the research focuses on how one group can capture a considerable amount of tax benefits while another group earns a lesser amount, a decomposition analysis was conducted in relative terms among three taxpayers groups based on income range—low-income at a tax bracket of 10 percent, middle-income at a tax bracket of 20 percent, and high-income at a tax bracket of 30 percent. The results are shown in pairs—high-income vis-à-vis middle-income, and middle-income vis-à-vis low-income—according to each retirement saving scheme (Table 6.10).

The total tax benefits of the groups were calculated and assigned in percentage terms to each of three components. The row named Marginal Tax Effect refers to the proportion of tax benefits earned when both income groups saved at the same amount; meanwhile, the row named Saving Effect refers to the proportion that earned from a higher level of savings given the same marginal tax rate between the two compared

groups. The saving effect was classified further into income base and contribution rate.

**Table 6.10** Decomposition of Tax Benefits

<b>Panel A: High Income vis-à-vis Low Income</b>				
<b>Group</b>	<b>Provident Fund</b>		<b>Retirement Mutual Fund</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Marginal Tax Effect	1,212,000	81.6	981,000	70.2
Saving Effect	272,550	18.4	415,800	29.8
- Income Effect	200,446	13.5	162,242	11.6
- Contribution Effect	72,104	4.9	253,558	18.2
Total Benefits	1,484,550	100.0	1,396,800	100.0
<b>Panel B: Middle Income vis-à-vis Low Income</b>				
<b>Group</b>	<b>Provident Fund</b>		<b>Retirement Mutual Fund</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Marginal Tax Effect	693,000	65.8	344,250	56.1
Saving Effect	359,550	34.4	269,550	43.9
- Income Effect	308,981	29.4	153,487	25.0
- Contribution Effect	50,569	4.8	116,063	18.9
Total Benefits	1,052,550	100.0	613,800	100.0

Tax benefits are generated chiefly from the nature of progressive tax where a high marginal tax rate translates into a larger amount of tax benefits, while the contribution amount plays a secondary role. Comparing the high- and low-income taxpayer groups (Panel A), it can be seen that the marginal tax effect was strong as it generated 81.6 percent of the tax benefits for the provident fund, and 70.2 percent for the retirement mutual fund. The contribution rate produced a smaller effect than the income base in the case of the provident fund since the range of contribution was, on average, one percent different between the two groups (referred to Table 6.3). The case of retirement mutual fund was opposite where the contribution effect was higher than the income effect, given that the contribution rate showed a nearly four percent difference.

The results between the middle and low-income groups (Panel B) restated the significance of the marginal tax effect—that it causes 65.8 percent of the tax benefits for the provident fund, and 56.1 percent for the retirement mutual fund. The effect in the middle-low case was lower than that for the high-low comparison simply because the middle income group pays a 10 percent higher marginal tax (20 percent tax bracket in the middle income and 10 percent in the low income group), while the high income group pays 20 percent more (30 percent tax bracket in high income). The mechanism of tax deductibles hence converts into higher tax reduction. For this pair, the contribution effect plays a smaller role than the income base effect because both groups have a similar rate of savings for each scheme.

## **6.5 Summary**

This chapter explores the distribution impacts of tax expenditure policy with the aim to investigate the extent to which tax benefits are claimed by socio-economic groups as sorted by income and age ranges, and also sought to understand the source of tax benefits. Based on the two schemes of retirement savings—the provident fund and the retirement mutual fund—tax expenditure policy tends to disproportionately benefit groups with a relatively higher marginal tax rate.

As observed by income classes, the group of wealthy taxpayers (marginal tax rate of 30 percent) shared more than half of the total tax benefits although it shared around 16 percent of the total respondents. After being classified into age groups, it was seen that the respondents with an upper-age range (40 to 49 years) shared around 40 percent of the tax benefits while they were around 23 percent of the total respondents. Mainly, the losers were the non-taxpayers, the low-income taxpayers groups, and young workers since they usually had a lower level of income where the marginal tax rate was too small to yield tax reduction benefits, while their contribution amount was relatively lower than that of the opposite groups.

Furthermore, tax expenditure policy was seen to mitigate the impacts of taxation. A progressive tax system created a redistribution of wealth from higher-income to lower-income groups. However, tax benefits reversed cash flows by transferring the wealth back to those who paid high taxes. However, it should be

noted that the tax benefits reversed the effects of taxation but not by the full amount.

In fact, the overall impact of tax expenditures on income distribution was only marginal. This is because the tax expenditure for retirement savings limits the usage at 15 percent of income. The amount was multiplied by the marginal tax rate in order to reduce tax liabilities. In the extreme sense where the participation rate was perfect and the contribution rate was at maximum rate, the marginal tax brackets that ranged from 10 to 30 percent could translate into tax benefits of only 1.5 to 4.5 percent of income. Additionally, as the data indicated low contribution rates for both schemes, and unpopular participation for the retirement mutual fund, strong evidence that the tax expenditure policy created income inequity was not confirmed by the case of the retirement saving schemes.

Decomposing the sources of tax benefits provides an understanding that tax benefits are claimed not by contribution into the scheme, but rather due to the nature of the progressive tax system. The same amount of contribution renders dissimilar tax benefits when the marginal tax rate is different. Those that make small contributions can claim a greater tax liability reduction if the marginal tax rate is substantially higher. The second most contributing factor was the income base, and the least was the saving rate. Such findings raise some concerns that, regarding tax expenditure policy, fiscal resources are spent chiefly on tax liabilities reduction, but at a lesser extent on promoting long-term saving behavior.

However, the empirical findings should be interpreted cautiously. The sample was drawn from the capital city of Bangkok, where the penetration of the provident fund and access to financial institutions are higher than the rest of the country. One would expect to find a more a greater tilt towards the high-income group when taking into account the citizens outside the capital, where the income level and degree of financial inclusion are lower.

## **CHAPTER 7**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 Introduction**

The research serves as a warning sign that tax expenditure policy should be handled with care. Section 7.2 addresses the first research objective by indicating the key factors affecting the implementation of tax expenditure policy. Section 7.3 fulfills the second objective by showing the distribution of tax benefits based on the survey samples and revealing the sources of tax benefits. Section 7.4 aims to meet the third objective by providing policy recommendations, hoping to improve the effectiveness and equity of distribution. Lastly, section 7.5 suggests areas for further development of research in the field.

#### **7.2 Summary and Discussions – Policy Implementation Analysis**

The key learnings from implementation of tax expenditure are summarized in four points: (1) tax expenditure policy has an inherent flaw—that it limits itself only on taxpayers; (2) private-sector implementers may pursue their business objectives rather than the policy; (3) targeted citizens may weigh their personal constraints more than value of tax benefits; and (4) external factors—economic and political—create difficulties in the implementation process.

##### **7.2.1 Inherent Flaws in the Design of the Tax Expenditure Policy**

The research findings reaffirmed that 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. Basically, the tax liability reduction mechanism had an inherent flaw—it only works on taxpayers. The case of the RMF suggests that non-taxpayers are essentially excluded

from the tax-privileged program because they have no tax liabilities to be reduced. This incidence creates implementation failure because the number of taxpayers in the country is small compared with the total size of the workforce, which should be the target for retirement savings stimulation. In other words, the program coverage will be limited to a fraction of the citizens, no matter how well efforts are made regarding the program.

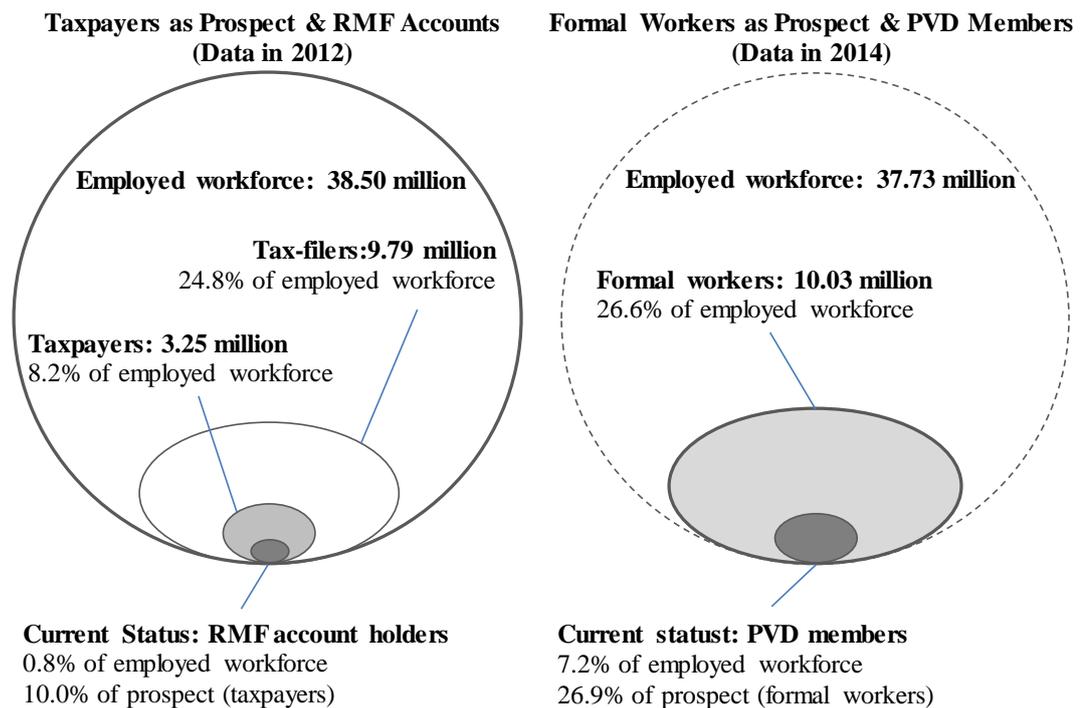
Intended outcomes are unlikely to be achieved if policymakers fail to recognize who should be the actual target of incentivization. The case of the PVD revealed that tax expenditure policy has no chance to render an effect on employees because most employers are not motivated to establish the scheme in the first place. Even if the scheme is provided, the policy is still unable to encourage high savings because, generally, the employers are decisive in setting employees' contribution rate.

It is worth mentioning here that effective implementation has a substantially negative impact on fiscal imbalances. Specifically, each progression of the program that the policy promotes—stronger participation and higher contributions—would mean the loss of tax revenue. The onion diagram, shown in Figure 7.1, visualizes the size of the prospective or potential target of the policy. The outer layer with a bold line indicates the hypothetical target, which was explicitly mentioned in policy objectives. The inner layer with a light grey area indicates the prospects. This is important information since it reflects the possibility of acquiring the target in practice; and the core with the dark grey area signifies the current status.

According to policy objectives, the RMF aims to cover employed labor force, which made up to 38.5 billion workers in 2012. However, it was likely that prospective target of the RMF was basically taxpayers, while non-taxpayers show no participation at all (referred to Table 6.1). The might translate into number of prospects 3.25 million persons, or only 8.2 percent of the employed workforce (referred to Table 5.7). As a result, taking into account of the size of RMF of 325,287 accounts in 2012 (referred to Table 4.5), the RMF scheme acquired around 10.0 percent of prospective citizens.

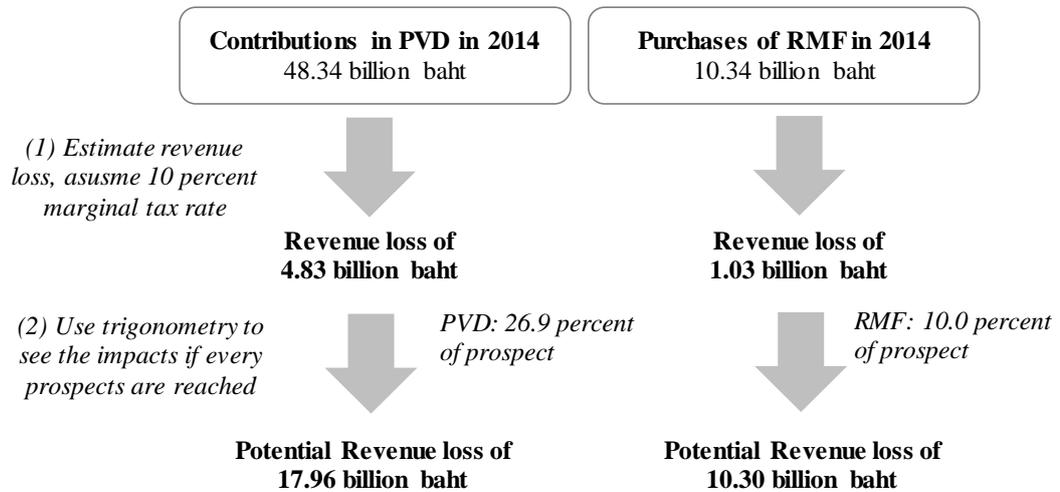
The case of the provident fund, on the right-hand side, is indifferent. The outer layer with the dotted line only represents the total employed workforce in order to compare this with the case of the RMF. The hypothetical target of the policy is formal

workers, which is represented by those employees that register with the Office of Social Security. This number, itself, reflects the prospect of the provident fund. It should be noted that formal workers represent around 26.6 percent of the employed workforce. Overall, the current status reaches 7.2 percent of the workforce and 26.9 percent of the prospects.



**Figure 7.1** Prospective and Current Status of the Retirement Mutual Fund and the Provident Fund

According to the case study, the rest of the 90 percent unattained prospects in the case of the RMF, and around 73 percent in the case of the PVD, suggests a big threat. If the policy perfectly covers its prospective target, assuming that tax liabilities are reduced at an average marginal tax rate of 10 percent, the revenue losses would climb to a total of 28.26 billion baht, or 4.8 times higher than the current level (Figure 7.2).



**Figure 7.2** Calculations of Potential Revenue Loss due to Tax Expenditure for Retirement Savings

This illustration suggests a dilemma regarding the use of tax expenditure policy. The growing utilization of tax incentives—higher number of participants and contribution rate—may essentially indicate the popularity of a specific program. However, this achievement goes hand in hand with an increasing loss of tax revenue. Hence, behind the curtain of implementation success may be a tremendous loss of tax revenue to the treasury.

### 7.2.2 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 implementing agencies 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. In addition, the private sector 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 (Palumbo and Harder, 1981). 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 process.

Furthermore, it will be difficult should the policymaker want to manage the private sector towards achieving social development goals. This is because commercial-oriented organizations have their own mandate for profit maximization. Additionally, the fact that they operate outside the hierarchical control of the government makes it difficult for policymakers to legitimately intervene in their business strategies.

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

Tax expenditure policy is unique in that the incentivization mechanism applies only when the program is voluntary. Citizens then become policy participants whose behaviors critically determine the success or failure of the implementation. The knowledge in top-down implementation approach suggests that the homogeneity among targeted citizens makes it easy for the policy to deal with social problems (Sabatier and Mazmanian, 1980). In addition, service utilization approach suggests that behavioral responses can be classified into steps beginning from being aware of the program, perceiving the benefits, and considering the use of services.

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 retirement savings should they perceive that their tax liabilities are reduced to an acceptable level. This also suggests that policymakers should be aware that taxpayers

are likely to view tax-privileged programs differently according to their purposes, but similarly as tax liability reduction tools.

The case of the PVD, according to this research, is less obvious in terms of the heterogeneity of the behavioral response. However, the insights of participants are still vital to policymakers. The findings that PVD participants weighed the employer's contribution over tax benefits imply that the policy fails because the tax liability reduction mechanism is unable to induce retirement savings, even though a high participation rate is attained. 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.

#### **7.2.4 Tax Expenditure Policy is Sensitive to Economic and Political Issues**

Environmental factors are an explanatory variable uncontrolled by policymakers but they assert some influence over the results of policy implementation. Tax expenditure policy is affected by the country's economic situation, and competition among advocates of different political views. The history of the provident fund suggests that a deep economic recession could lead to poor profitability of the business. If the situation results in the closure of the company, the provident fund will be liquidated (selling all of the assets and distributing the proceeds back to the unit holders) and the tax incentive will be forced to cease its function as well. If the unemployment rate rises, it will reduce the number of prospects for the scheme simply because the tax incentive is disqualified for non-taxpayers.

Additionally, the implementation of this spending through tax codes faces countervailing forces from those that concern fiscal stability. These opponents argue that tax expenditure forgoes what ought to be tax revenue for the treasury, and creates inequity that yields benefits for wealthy income groups rather than the opposite. Empirical evidence from the retirement mutual fund indicates an attempt to remove the tax benefits attached to the scheme.

### **7.3 Summary and Discussion – Distribution of Tax Benefits**

The key findings from the distribution of tax benefits can be summarized according to two additional points: (1) the high-income taxpayer group earns a disproportionately large amount of tax benefits; (2) unequal tax benefits are created by the difference in the marginal tax rate between the two income groups, rather than from their saving ability.

#### **7.3.1 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 case of the RMF was obvious—that the relatively high-income group tended to have more participation and contribute more savings than the relatively-low income group, as shown in Table 6.1. This may be due to the fact that citizens need to spend money out of their pockets in order to participate in the program. It is likely that the poorer group will be hindered by an income shortage, while the wealthy group is able to overcome such limitations, as described in section 5.3.3 regarding the behavioral response of the RMF non-participants. As a result, individuals with a high income would be able to claim most benefits from the tax expenditure policy.

Sorting by age range, the research indicates that tax benefits are earned mainly by aged workers than young workers. Referring to Table 6.7, citizens within the upper-age and nearly-retired groups shared around fifty-five to sixty-five percent of tax benefits, while these two groups covered around one-third of the samples. Age may be related to engagement with retirement savings in two ways. First, getting older may create a psychological effect that lets citizens become more concerned about their well-being after retirement. Secondly, age may be positively associated with accumulated wealth or salaries given that the citizens have worked for more years. This can be seen in Figure 6.1, where the relatively-older groups consist mainly

of high- and middle-income workers. This evidence still implies that the program is pro-rich.

The findings from the distributional analysis should be used with care. It is worth noting again that the data were collected from the samples working in Bangkok. Although it is likely that this geographical area may cover most of the RMF participants, the lack of a countrywide sampling makes it impossible for the research to claim that the results of benefit incidence represent the whole program.

### **7.3.2 Tax Benefits are created by the Marginal Tax Rate**

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.

As mentioned in section 6.4, around 70 to 80 percent of the difference in tax benefits between the high-income and low-income groups was due to the advantage of the marginal tax rate. Similarly, around 55 to 65 percent of the tax benefits claimed by the middle-income group was caused by this factor.

## **7.4 Policy Recommendations**

Based on the case study of tax expenditure for retirement savings, the research shows that the policy is not effective in creating behavioral change; in fact, it worsens income inequity to certain extent as tax benefits are claimed mainly by well-off citizens. The research suggests 6 guidelines for improving the implementation effectiveness and inequity of tax expenditure policy.

It should be noted that some issues are not discussed in this policy recommendation section because they are either being supportive factors to the implementation, or environmental context that are uncontrollable by policymakers. Table 7.1 indicates the linkages between the issues in the previous section and policy recommendations.

**Table 7.1** Relationship between the Key Points and Policy Recommendations

<b>Domains</b>	<b>Problems</b>	<b>Recommendations</b>
Policy content	General concern over loss of revenue and uncontrollable costs (discussed in 7.2.1)	Disclose the lists of tax expenditure and estimated size on regular basis (discussed in 7.4.1)
Implementers	Financial intermediaries lack of commitment to pursue the policy objectives (discussed in 7.2.2)	Set clear target number of participants and coordinate with fund management companies (discussed in 7.4.2)
Target Citizens	In the case of the PVD, some employees earn windfall benefits and employers are reluctant to set up provident fund (discussed in 7.2.3)	Promote mandatory scheme—requiring employers to adopt the PVD (discussed in 7.4.3); or Incentivize the employers instead of employees (discussed in 7.4.4)
Target Citizens	In the case of the RMF, taxpayers are concerned about tax reduction rather than the purposes of the program (discussed in 7.2.3)	Instruct financial institutions to provide financial education (discussed in 7.4.5)
Distribution of Tax Benefits	Tax benefits are earned due to higher marginal tax rate, making them unattractive to those in lower bracket (discussed in 7.3.1 and 7.3.2)	Compensate for differences in marginal tax rate between income groups (discussed in 7.4.6)

#### 7.4.1 Reporting Tax Expenditure

Increasing the use of a tax expenditure policy can become a great challenge to fiscal stability. Tax expenditure is considered as off-budget since the extent to which fiscal resources are spent, in forms of forgone tax revenue, does not have to be approved by the government (Kraan, 2004). The lack of control makes the fiscal position vulnerable since the government may confront high unanticipated usage, which consequentially leads to uncontrollable fiscal deficits.

The Constitution of the Kingdom of Thailand B.E. 2550 (2007) requests the report of revenue loss due to tax exemption: deductions and the exemptions of the BOI; and allowances according to the Petroleum Act<sup>21</sup>. However, this cannot be considered sufficient given that the coverage is limited only on corporate income taxation. The measure essentially ignores special provisions in personal income taxation that the Thai government has heavily promoted during the past decade<sup>22</sup>. In terms of personal income tax, the programs included increasing allowances for mortgage interest deduction in 2007, a specific tax rate on the sales of residential property in 2008, a reduction in tax deductibles for first-time home buyers in 2011, an excise tax refund for first-time car buyers in 2011, and recently, allowances for domestic travel spending in 2014.

For transparency, there should be a formal disclosure of tax expenditure that covers more items. Tax authorities may take responsibility for estimating the amount of tax reduction associated with tax-incentivized programs. Meanwhile, line

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<sup>21</sup> Section 167: An annual appropriations shall be accompanied by clear supporting documents, including income estimates, objectives, activities, action plans and projects in each item of expenditure, and shall also indicate the fiscal and financial status of the country in connection with the overall outlook of the economy emanating from expenditure and procurement of revenues, benefits and revenue deficiency from various forms of specific tax exemption, the need to set appropriations with commitment across the year, debt burdens and debt creation of the State and the financial status of State enterprises, for the year in which appropriations are to be submitted for approval and the preceding year.

<sup>22</sup> See Appendix A for the list of special tax provisions for personal income tax.

ministries should be assigned to be co-responsible with the Ministry of Finance for tax expenditure legislation.

#### **7.4.2 Coordinate with Implementers**

Using private business organizations—financial intermediaries in the case of retirement savings—as implementers allows policymakers to utilize their business strategy, skilled staff, and network resources. However, as top-down scholars used to warn, discretion among implementers may create outcomes that deviate from what policymakers expect. It is difficult to enforce business organizations to pursue policy objectives because they operate outside the bureaucratic hierarchy.

Two things are recommended for this issue. First, there must be one government entity accountable for the success of retirement saving programs. This organization will be responsible for setting a clear target of achievement, for monitoring the progress, and coordinating with the private and public sector in order to ensure smooth implementation of the policy. Clear target setting can be attained simply by asking questions about what to achieve by when and by how much; lacking this means is analogous to lacking a navigation system to help consider where to go and by what speed.

Secondly, such a clear target must be communicated to implementers—even if they are private business organizations. This approach should not be regulatory, but instead through coordination with certain associations such as the Association of Investment Management Companies.

#### **7.4.3 Considering Mandatory Program for Employers**

Tax expenditure policy has an advantage in that it promotes private decision making—lets the citizens choose the activities that they are willing to engage in. Regarding retirement savings, it is hoped that these citizens will somehow recognize their benefits and cultivate a culture of long-term savings habits. However, such hope is far from being realized since taxpayers are unwilling to take the pains of reducing their current consumption for the future.

Being voluntary makes tax expenditure policy face challenges of slow progress in coverage. The major obstacle in the case of employer-sponsored scheme is

the reluctance among employers to establish a PVD in the first place, or to limit the employee's contribution rate of coverage (discussed in section 5.2.1). In the case of the RMF, voluntary participation creates the problem where taxpayers are likely to consider other programs to reduce their tax liabilities, mostly leaving retirement savings their last choice (discussed in section 5.3.3). As a result, the PVD covers only one-fifth of formal workers, while the retirement mutual fund covers less than ten percent of its prospects, although tax incentive measures have been promoted for around 20 years and 15 years, respectively.

The coverage is far less than that of the Superannuation Fund in Australia, which covers around 90 percent of the total workforce. It requires companies (employers) to contribute to the fund at least 9 percent of the employees' salary. Meanwhile, tax incentives are provided for workers (employees) to make additional savings. Other schemes like the Central Provident Fund (CPF) in Singapore and the Mandatory Provident Fund (MPF) in Hong Kong request their taxpayers to contribute to the publicly-managed provident fund.

In certain situations, it is the role of the government to "take a greater role" in deciding what is in best interest of the public. For a policy that is increasingly important or seemingly inevitable, the sense of it being mandatory may be necessary. This claim does not mean to be "non-democratic." Imagine any disaster that puts to lives of civilians at risk; governments must decide to force them to leave their residences rather than having them voluntarily make their own decision.

#### **7.4.4 Incentivize Employers**

This issue specifically relates to the PVD scheme. One explanation to the slow progress in the PVD expansion is the reluctance among employers, who are the key decision makers, whether to establish the fund and to decide on the range of the contribution rate. It is likely that employers will be concerned about the increasing cost of operations from making contributions to the employees' designated accounts. In order to alleviate this problem, the guideline suggests a provision of tax deductibles for the amount that employers contribute to their employees' accounts. The policy then functions as a tax subsidy for employers. Meanwhile, the tax benefits for employees' contributions should be removed since most respondents perceive benefits

from earning employer's contributions, rather than tax benefits. Removing the tax incentive from the employee may minimally impact their saving behavior.

It should be noted that guidelines discussed in section 7.4.3 and 7.4.4 are mutually exclusive. The previous issue requires no tax incentivization mechanism because the policymakers decide to request or mandate the employer to provide the scheme. This issue uses a "dovish" approach by using tax expenditure policy to encourage more employers to set up the PVD.

#### **7.4.5 Government-Advocated Public Education Program**

Tax incentives by themselves have limitations because they are less attractive to low-income taxpayers, who represent the majority of the country. Further, many individuals poorly perceive either the importance of savings for retirement or the benefits of tax provisions. In this case, financial education may be a powerful tool to use in combination with tax incentives to encourage savings in the program.

Bernheim and Scholz (1993) suggested that it may be possible to design more effective policies by educating the population or by exploiting the psychology of saving. People may gradually learn the benefits of long-term investment when they engage in a program, which is in accordance with the recognition effect that Cagan (1965) suggested. The importance of retirement savings can be communicated through a number of financial literacy programs. According to Bernheim and Garrett (1996: 34), employees that are offered retirement education programs are more likely to participate in 401(k) programs, and to make larger contributions. Additionally, they may learn by watching the behavior of their family members and friends (Feldstein, 1999: 28). However, choosing this alternative requires some patience among policymakers and proponents as the learning process is less likely to yield its fruits overnight.

#### **7.4.6 Compensation for Difference in Tax Benefits due to Tax Structure**

The marginal tax rate substantially influences both the effectiveness of implementation and the equity issue. Low-income groups and young individuals may be relatively less attracted to tax-preferred programs than the opposite since the low marginal tax rate and long time-to-withdrawal yield them unjustified cost benefits

(discussed in section 5.3.3) In addition, the gap in the marginal tax rate between the wealthier and poorer income groups explains more than half of the tax benefits (discussed in section 6.4).

If the low-income group or young workers is compensated for such unfairness, it may be tempted to make additional savings in the programs. Daly and Wrage (1980) proposed that the government may allow the low-income group a certain level of multiplier for the contributions they make. Expansion of the coverage among these groups is expected to improve as well as the distribution of tax benefits for these disadvantaged groups.

Improving vertical inequity through mitigating the tax benefits for the high-income group should be made with caution. In fact, eliminating tax incentives is not recommended. While some opponents argue that tax expenditure creates vertical inequity, the high-income group voices its opinion that allowing for a higher amount of tax reductions is fair for those that are obliged to pay high taxes. Further, any attempt to eliminate the measures affects the financial intermediaries that provide the mutual funds. Both interest groups are key advocates for the continuity of the tax incentives.

## **7.5 Suggestions for Further Studies**

The present research pioneers the analysis of tax expenditure based on the single case study of retirement saving programs. It is possible for there to be variations among different programs, namely mortgage interest, life insurance, or capital market investment. This is because the implementation contexts are different. For example, tax expenditure for mortgage interests might depend largely on economic factors such as interest rate, urbanization, and population growth. Meanwhile, tax expenditure for capital market may depend on a well access to financial services. The research encourages further studies in order to expand the knowledge of policy implementation of indirect public spending.

Further, the distribution impacts might be different from one program to another. Some programs may be accessible by lower- or middle-income groups rather than wealthy citizens. It can be either that the nature of the progressive tax system still

redistributes tax benefits to the high-income group, or such an effect can be overwhelmed by a significant degree of participation among the low- and middle-income groups. Thus, further studies through the application of different programs could allow us to carefully conclude whether tax expenditures are regressive (pro-rich) in nature.

Another point is that the initial results—that tax expenditure does not change income distribution in the society, as discussed in chapter 6—might be underestimated. This is because it is limited to only the area of retirement savings. A comprehensive analysis of major tax expenditure programs is recommended, such as allowances for mortgage interest, allowances for insurance premiums, and allowances for equity market investment.

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## **APPENDICES**

## Appendix A

### TAX ALLOWANCES AND EXEMPTIONS IN THAILAND

The Thai government recognizes taxation measures not only in terms of revenue generation but also its distributive and allocative functions in relieving the burden of underprivileged people. The history of tax relief and deductions in Thailand can be dated to the year 1974 when the tax exemption law was introduced in order to support the cost of living for ordinary people as well as businesses: rate reliefs for revenue from housing rentals, children allowances, child education allowances, as well as business tax rate reduction.

While tax measures at the early stage were geared mainly towards the cost of living reduction, the measures during the 2000s began to induce a long-term savings habit. In 2001, the Revenue Department, together with the Securities and Exchange Commission of Thailand (SEC), entitled the first type of tax-incentivised mutual fund, named the Retirement Mutual Fund (RMF). Three years later, in 2004, both entities promoted the second tax-saving vehicles, named the Long-Term Equity Fund (LTF), to induce capital market investment among Thais.

Later in the 2000s, tax expenditure measures were utilized as one of the economic stimulus packages. The year 2008 was a landmark for tax expenditure, when numerous tax deductions and exemptions were provided to boost private consumption and counteract the global economic slowdown. The table below lists the major tax exemption and allowance measures from 2001 to 2012 in chronological order. They are classified into categories based on policy areas.

**Table A:** Tax Exemptions and Allowances in Thailand during 2001 to 2012

Year	Category	Description
2001	Retirement Saving	<ul style="list-style-type: none"><li>Entitle allowances for the purchase of RMF up to 300,000 baht</li></ul>

**Table A** (Continued)

<b>Year</b>	<b>Category</b>	<b>Description</b>
2004	Capital Market	<ul style="list-style-type: none"> <li>Entitle allowances for the purchase of LTF up to 300,000 baht</li> </ul>
2007	Economic Affairs	<ul style="list-style-type: none"> <li>Reduce income tax for individuals that reside in five specific southern provinces</li> </ul>
	Housing	<ul style="list-style-type: none"> <li>Increase allowances for mortgage interest paid from 50,000 baht to 100,000 baht per annum</li> </ul>
2008	Economic Affairs	<ul style="list-style-type: none"> <li>Increase exemptions on net assessable income from 100,000 baht to 150,000 baht</li> </ul>
	Housing	<ul style="list-style-type: none"> <li>Reduce specific business tax rate from 3% to 0.1% on the sale of a residential property in a commercial manner<sup>23</sup></li> </ul>
	Retirement Saving	<ul style="list-style-type: none"> <li>Increase allowances for government employees' contributions to the GPF from 300,00 to 500,000 baht, but not exceeding 15% of annual income</li> </ul>
		<ul style="list-style-type: none"> <li>Increase allowances for the contributions to PVD from 300,000 to 500,000 baht, but not exceeding 15% of annual income</li> <li>Increase allowances for the purchase of RMF from 300,000 baht to 500,000 baht, but not exceeding 15% of annual income</li> </ul>
	Capital Market	<ul style="list-style-type: none"> <li>Increase allowances for the purchase of LTF from 300,000 to 500,000 baht, but not exceeding 15% of annual income<sup>24</sup></li> </ul>

<sup>23</sup> A temporary measure applied from March 29, 2008 to March 28, 2009. A specific business tax rate applies when the owners sell their residential properties during the first five years of ownership.

<sup>24</sup> There was a temporary expansion of tax exemption from 500,000 to 700,000 baht for an investment in the LTF from October to December 2008.

**Table A** (Continued)

<b>Year</b>	<b>Category</b>	<b>Description</b>
2008	Social Protection	<ul style="list-style-type: none"> <li>• Increase allowances for the insurance premium with a coverage term of more than ten years from 50,000 baht to 100,000 baht</li> </ul>
2009	Housing	<ul style="list-style-type: none"> <li>• Entitle allowances for the purchase of residential property and transfer within the year 2009 up to 300,000 baht (temporary measure ended in 2009)</li> </ul>
	Social Protection	<ul style="list-style-type: none"> <li>• Increase allowances for caring for disabled person to 60,000 baht per disabled person</li> </ul>
2011	Housing	<ul style="list-style-type: none"> <li>• Entitle allowances for first-home buyers that purchase residential properties valued not exceeding 5 million baht. The total allowances not exceeding 10% of value of the property will be equally allocated for 5 consecutive years (temporary measure ended in 2011)</li> </ul>
	Social Protection	<ul style="list-style-type: none"> <li>• Entitle full exemptions of income for those that are flood victims for the amount equal to compensation from government or from donations</li> </ul>
2012	Social Protection	<ul style="list-style-type: none"> <li>• Entitle full exemptions for repairing buildings or properties affected during the flooding from 2011 to 2012 at an amount up to 100,000 baht and repairing one's car up to 30,000 baht (temporary measure ended in 2012)</li> </ul>
		<ul style="list-style-type: none"> <li>• Charitable donations for disasters can be deducted as an expense at 1.5 times the amount donated</li> </ul>

## Appendix B

### PERSONAL INCOME TAX CALCULATION

In Thailand, personal income tax is levied a person—being either an individual, an ordinary partnership, the non-juristic body of a person, or undivided estate. Taxable income is considered as assessable income after subtracting tax-deductible items. Taxable income is subject to progressive taxation (while financial income is subject to withholding tax, or else needs to be included in progressive personal income taxation).

The personal income schedule in Thailand is progressive, consisting of a number of tax brackets in which the marginal tax rate increases with income. The amount of taxable income not exceeding 150,000 baht is exempted from being taxed. The higher amounts of assessable income are subject to being levied at a set of marginal tax rate ranging from 10 to 37 percent.

**Table B:** Personal Income Tax Schedule

<b>Taxable Income (baht)</b>	<b>Marginal Tax (%)</b>
0 to 150,000	Exempted
150,001 to 500,000	10%
500,001 to 1,000,000	20%
1,000,001 to 4,000,000	30%
4,000,001 and over	37%

## Appendix C

### DECOMPOSITION OF TAX BENEFITS

Decomposition reflects the source of tax benefits earned by high (H) or middle (M) income groups, above those earned by low (L) income group.

- Tax benefits earned by high income group =  $(\text{Income}_1 \times \text{SavingRate}_1 \times \text{Tax}_1)$ .
- Tax benefits earned by low income group =  $(\text{Income}_2 \times \text{SavingRate}_2 \times \text{Tax}_2)$

Decomposing total tax expenditure benefits into marginal tax effect and saving effect

- Let  $I_i$  represents income base; and  $S_i$  represents savings rate; and  $T_i$  represents marginal tax rate of respective group
- The formula can be represented as  $(I_1 \times S_1 \times T_1) - (I_2 \times S_2 \times T_2)$
- Let  $A_1 = I_1 \times S_1$ ; and  $A_2 = I_2 \times S_2$ ,
- Different in tax benefits between two groups is  $(A_1 \times T_1) - (A_2 \times T_2)$
- Add  $(A_1 \times T_2) - (A_1 \times T_2)$ , which is equivalent to zero into the equation, we now have:

$$(A_1 \times T_1) - (A_2 \times T_2) + (A_1 \times T_2) - (A_1 \times T_2)$$

- Rearrange the equation into  $[(A_1 \times T_1) - (A_1 \times T_2)] + [(A_1 \times T_2) - (A_2 \times T_2)]$
- The first pair,  $A_1 \times (T_1 - T_2) = I_1 \times S_1 \times (T_1 - T_2)$  **reflects marginal tax effect**
- The second pair,  $(A_1 - A_2) \times T_2$ , reflects savings effect

Decomposing saving effect into income base effect and contribution effect

- As saving effect is expressed as  $(A_1 - A_2) \times T_2$
- Replace back  $A_1 = I_1 \times S_1$  and  $A_2 = I_2 \times S_2$ , we have:  $[(I_1 \times S_1) - (I_2 \times S_2)] \times T_2$
- Add  $[(I_2 \times S_1) - (I_2 \times S_1)] \times T_2$ , which is equivalent to zero into the equation, we now have

$$[(I_1 \times S_1) - (I_2 \times S_2) + (I_2 \times S_1) - (I_2 \times S_1)] \times T_2$$

- Rearrange the equation into  $\{[(I_1 \times S_1) - (I_2 \times S_1)] + [(I_2 \times S_1) - (I_2 \times S_2)]\} \times T_2$
- The first pair,  $(I_1 - I_2) \times S_1 \times T_2$ , **reflects income base effect**
- The second pair,  $I_2 \times (S_1 - S_2) \times T_2$ , **reflects contribution effect**

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