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**Research Report**

## Improving Tax Expenditure: From the Perspective of an Integrated Fiscal System

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## Improving Tax Expenditure: From the Perspective of an Integrated Fiscal System

Youngwook Lee, Fellow at KDI

**“Designed to support specific groups and fields, tax expenditures are rapidly expanding, independently from direct expenditures with identical policy goals. However, without an integrated monitoring process, the interconnection between the two can sometimes weaken the goals they both seek. As such, a database that covers all tax and direct expenditures should be built and used to comprehensively review the effectiveness of the programs.”**

### I. Introduction

Policies supporting diverse groups and areas are expanding in the form of tax expenditures, such as tax deductions and credits, independently from direct expenditures. For example, the earned income tax credit (EITC) and child tax credit (CTC)—refundable tax credit—for the working poor and households with children were introduced, and an array of tax credits to encourage employment and attract investment have been implemented.

A considerable advantage of tax expenditure is that its operation relies on the

\* Lee, Youngwook, “Improving Fiscal Accountability of Tax Expenditures: Focusing on Income Tax Expenditure,” in Heesuk Yun (ed.), *Enhancing Fiscal Sustainability through Strengthening Fiscal Accountability*, Research Monograph 2016–06, Korea Development Institute, 2016 (forthcoming) (in Korean).

existing tax system and as such, is highly efficient in terms of administration. Indeed, using the information filed at the time of declaration, the government can implement tax expenditures without extra procedures involving applications and/or evidential documentation. Additionally, as the benefits are in the form of tax reductions, provisions can be made without needing to build another tax system.

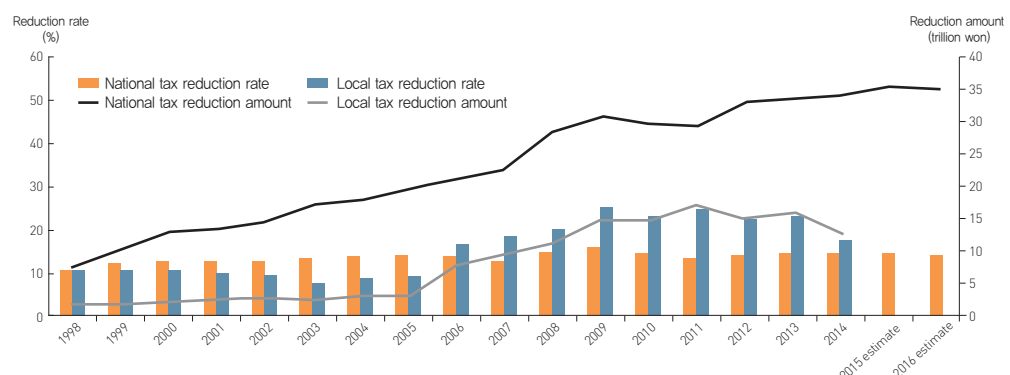
However, unlike direct expenditure, tax expenditure is not classified as an outlay but rather, a loss in tax revenue with respect to the budget and is therefore considered a 'hidden expenditure.' Accordingly, this has given rise to concerns that the information on tax expenditure may be more difficult to discern or monitor. And, the tightly restricted access to tax-related information including that on tax expenditure—overseen by the National Tax Service—means that assessment and management may also be problematic. Additionally, a comprehensive monitoring of tax and direct expenditure programs seeking the same policy goals may be difficult as they are each managed separately by different ministries.

## II . Current Status of Tax Expenditures

Tax expenditure is defined as the financial support provided through the tax code, such as tax reduction or exemption, non-taxation, deduction, tax credit, application of favored-tax rates or deferral of tax. It reduces the tax liabilities of individuals and companies for various policy goals including income support, increased employment and investment, and SME support.

The scale of tax expenditure has risen consistently, marking 13 trillion won in local taxes in 2014 and 35 trillion won in national taxes in 2016 (Figure 1). The rate of national tax reduction remained at around 13% until the mid-2000s, rising to 15.9% in 2009 and standing at around 14% at present. As for local tax reduction, the rate neared 10% until

[Figure 1] Tax Expenditure from National and Local Taxes



Note: The reduction rate is the reduction amount divided by the sum of the reduction amount and total revenue (=reduction amount/(reduction amount+total revenue)).

Source: National Assembly Budget Office, 2016 *Understanding Taxes and Issues: Tax Expenditure*, 2016 (in Korean).

**<Table 1> Tax and Direct Expenditures in 2017 by Budget Classification**

(trillion won, %)

Balance	Tax expenditure	Share	Direct expenditure	Share	Tax expenditure as share of direct expenditure
Total expenditure	37.0	100.0	400.5	100.0	9.2
Social welfare	10.3	27.9	119.1	29.7	8.6
Industry, SME and energy	10.6	28.8	16.0	4.0	66.3
Agriculture and fisheries	4.9	13.4	19.6	4.9	25.0
Health care	4.3	11.7	10.4	2.6	41.3

Note: Tax expenditures are based on estimates and direct expenditures on budget.

Source: Government of the Republic of Korea, *2017 Tax Expenditure Statement*, 2016; Ministry of Strategy and Finance's Open Fiscal Data, National Budget (<http://www.openfiscaldata.go.kr/portal/service/openInfPage.do>, last access: Feb. 2, 2017).

the mid-2000s, jumped to 25% in 2009 and retreated to 17.4% in 2014.

<Table 1> compares the size of tax and direct expenditures by budget classification. Tax expenditure for social welfare in 2016 totaled 10.3 trillion won, accounting for approximately 9% of direct expenditure. The annual average growth remains at 8.7% since 2014, pointing to a rapid increase in social welfare spending in the form of tax expenditure. Industry, SME and energy received 10.6 trillion won from tax expenditure and 16 trillion won from direct expenditure, which means that tax expenditure for this sector takes up as much as 66% of direct expenditure. The agriculture and fisheries sector received 5 trillion won from tax expenditure, accounting for 25% of direct expenditure.

**Policies supporting diverse groups and fields are expanding in the form of tax expenditures at a considerable scale, particularly in social welfare, industry, SME, and the agriculture and fisheries sectors.**

### III. Problems in Pursuing Policy Goals via Tax Expenditure

#### 1. Insufficient Assessment of the Effectiveness of Policy Goals

In contrast to the primary function of the tax system being to raise revenue, the policy goal of tax expenditures is to provide support to numerous groups and fields. Indeed, to examine whether tax expenditures are being spent effectively, the government adopted an in-depth performance evaluation system. However, the evaluation is mandatory to only those with sunset provisions near their sunset dates. A voluntary evaluation may be conducted on tax expenditures not subject to the sunset provisions, which account for 65.5% of the national tax expenditure, but this is merely an arbitrary protocol, which lacks regular, systemic management procedures.

For instance, the EITC was first adopted in 2008 to financially support the working poor and to encourage a labor supply of low-income households. Since, it has been consistently revised and expanded without appropriate assessment of its effectiveness on recipients.<sup>1)</sup>

1) Deductions for wage and salary income, which includes the EITC, were subject to voluntary in-depth evaluations in the second half of 2016.

**The EITC was expanded without being reviewed for its effectiveness, and the CTC was adopted in 2015.**

In 2015, a similar refundable tax credit subsidy, the CTC, was introduced, and together, the expenditure hit 1.7 trillion won in 2016. Nevertheless, leaving the EITC unchecked has raised a series of questions regarding policy targeting and effectiveness. Upon closer scrutiny, the EITC was found to have failed in actually supporting poor households due to the lack of accurate data on low-income workers, and only 31% of eligible households were found to have received the subsidy (Yun, 2012). Also, several studies reveal that the EITC failed to achieve the intended goals such as poverty reduction and income redistribution because the subsidy itself was small and the take-up rate of targeted groups was low (Lim, 2012; Yun, 2012; Jeong and Kim, 2015; Kang *et al.*, 2015).

## **2. Insufficient Consideration of the Comparative Analysis of and Interconnection between Tax and Direct Expenditures with Identical Goals**

As government support for individuals and companies is offered not only via direct expenditure but also via tax expenditure, the effectiveness of the policies on the respective target groups should be examined from both perspectives. An important aspect of this process is to consider the possibility of similar or overlapping support programs and compare and analyze which provides more effective support. Yet, there is a lack of data that can help discern the integrated support provided to groups through tax and direct expenditures. For instance, the current SME integrated management system only tracks support from direct expenditures, despite the fact that it is largely provided by tax expenditures.

Also noteworthy is the interconnection between tax and direct expenditures with respect to the target groups. At present, each expenditure is handled independently by different ministries, and hence, policies targeting the same groups and fields are monitored and analyzed as separate entities.

The following section focuses on support policies for low-income households and examines the EITC, a representative tax expenditure program, in connection to the cash benefits provided by the National Basic Livelihood Security (NBLs), a direct expenditure program. The analysis found that the interconnection between the two creates a loophole of taxpayers whose income decreases the more they work, which implies that the current structure is failing to encourage recipients' employment and self-reliance.

The EITC is a refundable tax credit aimed at supporting the income of the working poor and encouraging their labor supply. The subsidy is calculated based on the amount of earned income and consists of three regions: phase-in region in which the subsidy increases in line with the earned income; flat region in which the subsidy reaches the maximum; and the phase-out region in which the subsidy decreases gradually.

The NBLs is a key public assistance program that provides low-income households with minimum livelihood guarantees and self-reliance support. And according to income

thresholds, cash and in-kind benefits are provided to cover their livelihood, housing, health care and education. Cash benefits include the livelihood benefit for households whose income is below 30% of the median income and housing benefit for those whose income is below 43%. Interestingly, the interconnection between tax and direct expenditures gained even more significance as the recipients of the NBS's livelihood and housing benefits became eligible for the EITC in 2015.

Under the current system, this study examines the post-tax income and marginal tax rate of each income group taking into account tax and direct expenditures. The marginal tax rate is defined as the decrement in benefits or increment in taxes per an additional 1 won in earned income. The marginal tax rate is important because it is directly linked to labor supply incentives. If a rise in earned income leads to a significant increase in tax or decrease in existing benefits, there will be less incentive to increase the labor supply and income. Specifically, the nearer the marginal tax rate is to 100%, the closer the income from additional work is to zero, and when the marginal tax rate exceeds 100%, there may even be a loss in total income.

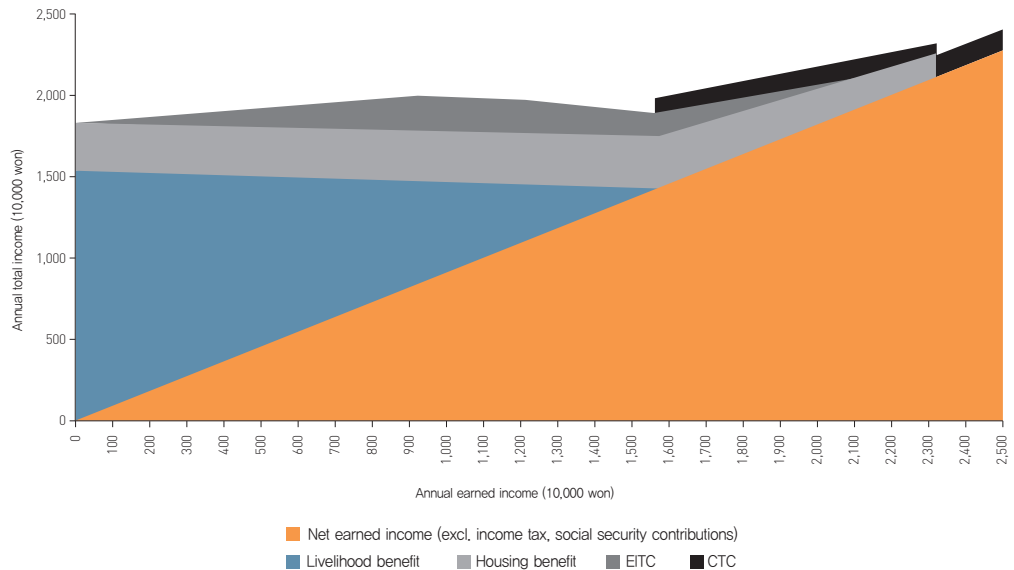
[Figure 2] shows the post-tax income of single-earner households (four members including two children), influenced by tax and direct expenditures. Households are entitled to livelihood and housing benefits if the recognized income is below the threshold.<sup>2)</sup> As the earned income increases, the livelihood benefits are reduced by the earned amount and instead, EITC benefits are provided. When the earned income increases to an annual 9-12 million won, which enters the flat region of the EITC, households receive the maximum EITC benefits. And when social security contributions are taken into consideration, those who earn an annual 9 million won are guaranteed to have a post-tax income of a maximum of 19,742,200 won, with the EITC and cash benefits included.

As the earned income exceeds 12 million won, the EITC is gradually reduced in line with the amount of income and the respective household enters the phase-out stage wherein more work leads to less post-tax income. And as the earned income nears the income threshold for livelihood benefits, post-tax income is reduced further to 18,648,900 won. As such, the interconnection between the EITC and the NBS's cash benefits creates an 'income reversal' in which more work equals less post-tax income.

Additionally, there are even cases wherein the post-tax income is higher when the household is receiving both the livelihood and EITC benefits than when the income exceeds the income threshold. When the earned income exceeds the income threshold for the livelihood benefit, households receive the CTC, instead of the livelihood benefit, which leads to a jump in their post-tax income. In such cases, however, the total post-tax income is approximately 19,648,900 which is lower than the maximum post-tax income

2) Housing benefits are offered in the form of rent allowance, assuming that the residence is located in Gyeonggi province. The properties have not been considered in this analysis.

[Figure 2] Four-member (Couple with Two Children) Households' Total Income (incl. Tax and Welfare Expenditures)



The EITC, a tax expenditure and the NBLs, a direct expenditure, are both designed to support the income and self-reliance of low-income households, but the interconnection between the two creates an income reversal wherein more work leads to less total income.

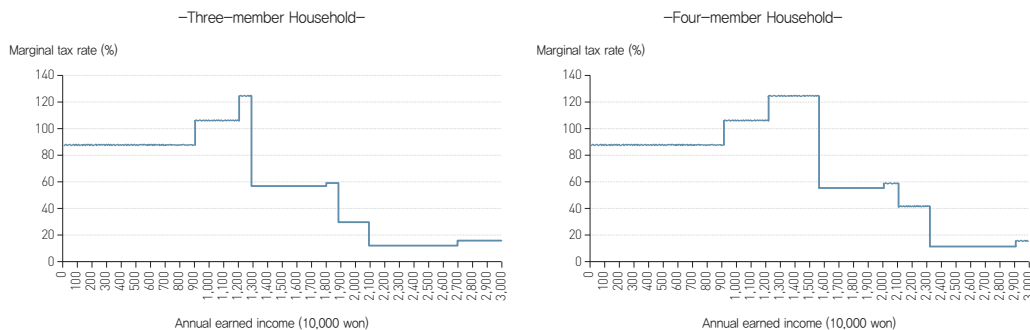
A 100 won increase in earned income reduces benefits by 125 won in benefits, leading to a 25 won decrease in the total post-tax income.

for an annual earned income of 9 million won with the eligibility for the livelihood benefit. Besides, considering the additional benefits such as in-kind and deductions given to livelihood benefit recipients, it can naturally be expected that low-income households will have little incentive to work more and seek self-reliance.

It is evident in [Figure 3], showing the marginal tax rate which is directly related to the incentive to work, that it is difficult to expect an induced labor supply. Having an earned income means a loss of that much in livelihood benefits, which means that the marginal tax of livelihood benefits, in principle, is 100%. This structure severely weakens the incentive to work. Further still, for those whose EITC is in the phase-out region, the marginal tax rate reaches 125% as more earned income entails a more substantial decrease in the EITC. In other words, such households will experience a 125 won reduction in benefits or increase in tax for every 100 won earned, leading to a decrease of 25 won in the total post-tax income.

Both the EITC and NBLs are designed to support the income and self-reliance of low-income households, and hence, influence the income and labor supply incentives of such households. However, concerns have arisen over a weakening of policy goals as these policy programs remain unchecked within the overall social safety net. Indeed, despite the intention to provide low income households with more incentives to work and become self-reliant, it is highly likely that these incentives will be minimal and even undermined for some income earners.

**[Figure 3] Marginal Tax Rates of Three-member (Couple with One Child) and Four-member (Couple with Two Children) Households**



Accordingly, these expenditures may be ineffective in inducing work and self-reliance of low-income households, contrary to the intended policy goals.

### 3. Conflicting Goals within the Tax System

Each tax expenditure has its own policy goals and although they may vary, they are all sought within the overall scope of the tax system. Accordingly, it is vital that these goals are in harmony with the fundamental goal of taxes, which is to secure revenue sources and ensure equity within the tax system. In fact, a fragmented evaluation and revision of tax expenditure programs according to their respective goals could distort the entire tax structure.

Respective tax programs that are fragmentarily evaluated and revised in line with their respective goals could distort the whole tax structure.

For instance, the 2013 tax reform changed several income deductions into tax credits in order to improve tax equity. Income deductions have been consistently criticized over the possibility that the tax reduction benefits provided to different income classes may be regressive. To tackle this problem, income deductions on expenses for guarantee insurance, medical treatment and education were modified to tax credit. True, this change helped to improve tax equity, but at the same time, the number of those exempt from the earned income tax surged. Taxpayers have risen continuously from 6.09 million in 2005 to 11.05 million in 2013, but the absolute size plunged to 8.66 million in the wake of the 2013 tax reform and supplementary measures for year-end tax settlement (Table 2). Accordingly, the proportion of exempt individuals rose from 32.4% to 46% after tax laws were revised in 2013 and then to 48% in 2015 after supplementary measures for year-end tax settlement were implemented (National Assembly, Jul. 2, 2015). Such results contradict the direction of the government's existing mid- to long-term fiscal management plans which aim to expand the income tax base by downsizing the proportion of exempt individuals.

The tax reform in 2013 was intended to improve tax equity, but failed to reflect a comprehensive perspective within the overall tax system. As a result, the proportion of exempt individuals soared to 48% and went against the basic direction of governmental efforts to counter the low birth rate.

In addition, with the 2013 tax reform changing the deductions on child-related expenses to credit or even voiding them, households with young or multiple children were left with a heavier tax burden—which contradicts governmental measures to counter the low birth rate. The revised tax system replaced several child-related deductions with a single child tax credit, terminating income deductions on expenses for child birth, adoption and children under 6. As a result, households with preschool children have become more



**<Table 2> Changes in the Number of Earned Income Taxpayers and Exempt Individuals**

(10,000 persons, %)

	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14
Total wage earners	1,190	1,259	1,338	1,405	1,429	1,518	1,554	1,577	1,636	1,669
Taxpayers	609	660	773	796	852	922	992	1,054	1,105	866
Exempt individuals	582	599	564	609	578	596	562	523	531	802
Proportion of exempt individuals	48.9	47.6	42.2	43.3	40.4	39.2	36.2	33.2	32.4	48.1

Note: Wage earners with determined tax amount are defined as taxpayers.

Source: National Tax Service, *Statistics Yearbook of National Tax*, each year; National Assembly Budget Office, 2016 *Understanding Taxes and Issues: Tax Expenditure*, 2016.

burdened by taxes than before.

Succumbing to the criticism that the reform goes against the broad policy framework to counter the low birth rate, the government readjusted child-related deductions through additional supplementary measures in the 2015 year-end tax settlement, which were applied retroactively. Although tax programs cannot all be designed to satisfy other policy targets, given that the government failed to justify its initial policy decisions to revise the tax system and readjusted relevant programs after-the-fact, it is evident that some elements within the tax structure were not fully taken into consideration. Above all, the fact that taxes were revised against the basic direction of tax policies, i.e. securing tax bases, indicates a distortion in the overall tax structure.

#### IV . Policy Suggestions

**To properly evaluate tax expenditure programs, relevant information needs to be provided in a timely manner.**

The above discussions bring to light the necessity to strengthen the monitoring of tax expenditures from a comprehensive perspective.

Information on tax expenditure must be made available to establish a policy evaluation structure. Providing tax administrative microdata carries the risk of confidentiality breaches, as such, a safeguard must be put into place and the information must be provided in a timely manner in order to facilitate the appropriate review and evaluation. For this, as it has been suggested by numerous researchers, it is worth considering circulating the needed information by providing samples of microdata on individual tax payments (Park, 2006; Moon, 2007). Take for example, data on health insurance, which contains sensitive personal medical information. The National Health Insurance Service systematically provides samples obtained from random sampling for policy and academic studies while minimizing concerns over personal information leaks.

**A database on tax and direct expenditures that seek identical policy goals should be built and the information must be interconnected.**

To comprehensively manage tax and direct expenditures with identical policy goals, a database that covers both expenditures must be built. As aforementioned, numerous expenditure programs are in operation to support the income and self-reliance of the low-income class. If the respective data is regularly entered into a database along with

information on income and job characteristics, this would enable a comprehensive evaluation through which relevant policies can be systematically developed and monitored.

Also, based on the above data, the evaluation and supervision of tax expenditure programs must be strengthened. As of now, only tax expenditures with sunset provisions are subject to the mandatory in-depth evaluation. However, this in-depth evaluation should be systemized further so that other programs not covered by the evaluation are also reviewed on a regular basis.

In order to examine the overall effectiveness of tax and direct expenditures with identical policy goals, it is essential to check the integration and interconnection of pertinent policies within a broad framework. To do so, a spending review at a sector level may be useful. However, the current review system is only applicable to direct expenditure programs. As such, comprehensive reviews must be conducted on both direct and tax expenditure programs implemented in the same sector.

Lastly, when introducing or revising tax expenditures, it is also necessary to check the concordance within the overall tax system to eliminate excessive focus on a specific policy goal and conflicts with other goals. In this case, relying on average figures does not help in examining the overall structure of the tax burden, not to mention concordance. Therefore, the structure of the overall tax burden must first be examined via a simulation that takes into account the heterogeneous characteristics of households and companies and then, the accurate information must be made available.

A structure that comprehensively examines both tax and direct expenditures should be strengthened along with an effectiveness check on respective tax expenditures.

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