

Government Credit Policy: Possibilities of Interest Subsidy

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Contents ■ ■ ■

I . Introduction	7
II . Government Loan, Loan Guarantees and Interest Subsidy	9
1. Need for Financial Support from the Government	9
2. Comparison of Government Loans and Loan Guarantee	10
3. Literature Survey	13
4. Expansion of Interest Subsidy Programs	14
A. Pros and Cons	14
B. Comparison of Net Benefits of Loans and Interest Subsidies	15
III . Overview of Government loan and Interest Subsidy Programs	22
1. Accounts and Funds	22
2. Government loans by Function	25
3. Fiscal Support Distribution by Type	26
4. Interest Subsidy Program Analysis and Evaluation	30
A. Budget Execution	30
B. Analysis of Interest Subsidy Program Examples	30
C. Similar and Overlapping Support Programs	31
IV . Credit Policies in Other Countries	33
1. United States	33
A. Government loans	33
B. Examples of Interest Subsidies	35

2. Japan	36
A. Fiscal Support Today	36
B. Examples of Interest Subsidies	38
3. United Kingdom	39
A. Examples of Interest Subsidies	39
4. Implications of Other Countries' Cases	41
V. Reform of the Fiscal Support Programs and Expansion of Interest Subsidy Programs	43
1. Housing Support Programs	43
A. Current Status	43
B. Increasing the Role of Interest Subsidies in the National Housing Fund Programs	51
2. Agriculture, Forestry and Fisheries Industries	53
A. Current Status of Loan and Interest Subsidy Programs	53
B. Plans to Improve Agriculture, Forestry, and Fisheries Policy Fund System	59
3. Future of Interest Subsidies in Fiscal Support	62
A. Financial Environment	62
B. Interest Subsidy Conversion Principle	63
C. Future Considerations for Interest Subsidy	64
VI. Conclusion	66
Bibliography	70

List of Tables ■ ■ ■

<Table II-1>	Comparison of Government Loan Programs	11
<Table II-2>	Present Value of Fiscal Support Flow by Program Type	16
<Table II-3>	Present Values of Cash Flows at Financial Institutions by Program Type	20
<Table III-1>	Loan and Interest Subsidy Budget and Programs under Each Account/Fund	23
<Table III-2>	Interest Subsidy Budget and Programs under Each Account/Fund	24
<Table III-3>	Loan and Interest Subsidy Programs by Function	25
<Table III-4>	Interest Subsidy Programs by Function (2013)	26
<Table III-5>	Fiscal Support Distribution by Type (2013)	27
<Table III-6>	Distribution of Loan and Interest Subsidy Programs by Recipient Type ..	28
<Table III-7>	Fiscal Support Budget Distribution by Loan Recipient Type (2013) ..	29
<Table IV-1>	Fiscal Support and Investment Distribution in Japan for FY2014	37
<Table V-1>	Sources and Performance of the National Housing Fund	44
<Table V-2>	Details of Supplier Support Programs	46
<Table V-3>	Details of Consumer Support Program (2014)	47
<Table V-4>	Loan Status by Year	49
<Table V-5>	Fiscal Support Types by Program (as of 2013)	50
<Table V-6>	National Housing Fund Loan and Interest Subsidy Program Types ...	52
<Table V-7>	Outstanding Loan Balance of Accounts and Funds for Agriculture, Forestry and Fisheries Industries	53
<Table V-8>	Loan and Interest Subsidy Programs for Agriculture, Forestry and Fisheries Industries (2013)	54
<Table V-9>	Interest Subsidy Programs under National Agricultural Cooperative Federation Policy Fund	55

<Table V-10>	Loan and Interest Subsidy Programs for Agriculture, Forestry and Fisheries Industries	56
<Table V-11>	Agriculture, Forestry, and Fisheries Industries Account and Fund Management	60

List of Figures ■ ■ ■

[Figure IV-1] Long-term Trends in Direct Loans and Loan Guarantees in the United States	34
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I

Introduction

The government offers loans with interest rates lower than market interest rates to vulnerable groups and sector. These loan programs were first introduced to foster specific industries and build social infrastructure during the time of the accelerated economic development in the 1960s. At present, the government loan program has grown to 26.42 trillion won in total amount, comprising about 10 percent of the national budget as of 2013. To promote government expenditure efficiency, the Park Geun-hye administration intends to replace the government loan programs with interest subsidy programs, as it hinted in its budget proposal.¹⁾ Under the interest subsidy programs, the government utilizes the financial resource of private financial institutions instead of raising funds on its own and provides beneficiaries with the difference between policy interest rates and market interest rates. The interest subsidy program has garnered favorable responses since it gives the government greater flexibility in budget management by relieving it of the burden of raising funds for government loans. Moreover, this method utilizes the know-how of private financial institutions in loan appraisals, thereby promote the growth of the financial market and improve market efficiency through the expansion of financial services.

At the time when Korea's financial market was underdeveloped, the government loan system was an effective way of supporting vulnerable groups

1) The government's budget includes plans to reduce government spending by 0.7 billion won in 2014, by 1.4 billion won in 2015, and by 1.7 billion won in both 2016 and 2017, for a total reduction of 5.5 billion won from 2013 to 2017, by switching to the interest subsidy program.

and specific industries in terms of fund availability. However, with the expansion of the private financial market in recent years, there is more of available capital in the private sector and the market interest has dropped and stayed at around 3 percent since 2013. Therefore, under the changed financial environment, the existing government loan system cannot operate as effectively as in the past. Therefore, it is necessary to find ways to develop new methods of government financing in the light of the changing times.

In that sense, expansion of the interest subsidy program should be actively considered. However, since judgement on loan is conducted solely by private organizations in this method, some have pointed out that the interest subsidy program has its limits in terms of achieving policy goals compared to the government loan program. Furthermore, the conversion from the government loan program to the interest subsidy program may require reforms of the government accounting and financing systems, and other organizational changes in the government. Therefore, the shift to the interest subsidy program should be reviewed carefully. This study examines the economic effects of the shift from the government loan program to the interest subsidy program, analyzes problems with the government loan program, and considers possibilities, principles and plans for further expansion of the interest subsidy program as a way of improving the government loan program.

II

Government Loan, Loan Guarantees and Interest Subsidy

1 Need for Financial Support from the Government

Government loans—through which the government provides fiscal support for vulnerable groups and/or specific sectors and industries—form a major part of government spending programs in many countries, including Korea,. However, government loans are perceived as less efficient than interest subsidies. Li (1998) compared the effectiveness of (governmental) direct loans, loan guarantees, and subsidies in the case of small and medium enterprises and start-ups and found that, given the asymmetry of information, businesses that received subsidies pursued greater business activities, while those that received direct loans or loan guarantees made more investments in high-risk projects.

Notwithstanding controversies over the effectiveness of government loans, many countries continue to use them in the belief that they are necessary to correct market failure, which arises due to imperfect competition, information asymmetry, and risk elements. Since such failure occurs in the financial market as well, it is necessary for governments to intervene. Market failures especially affect low-income groups, start-up candidates, small and medium enterprises, and agriculture, forestry and fisheries. There is more imperfect competition in agriculture, forestry and fisheries than in other industries. Moreover, income for these industries is highly uncertain due to the influence of natural disasters, relatively small transaction amounts, and seasonal capital requirements. These

constitute the main reasons why commercial financial institutions have difficulty doing business with these industries. Moreover, there exists an asymmetry of information between financial institutions and loan applicants in these industries because it is very difficult judge whether profitability is dependent on natural conditions or the management skills and wisdom of applicants. The asymmetry of information may be present in loan applications made by small and medium enterprises and start-up candidates as well. Since business loans are granted on the basis of assets and existing loans or transactions performance, small companies or individuals without much transaction record have limited loan opportunities. Therefore, small and medium enterprises and start-up candidates often face difficulties raising the funds they need to develop technologies that would likely lead to high returns, as financial institutions are incapable of making accurate evaluations in their cases. It is necessary for government to provide fiscal support for those who have difficulties raising funds from private organizations due to such asymmetry of information. The government loan is therefore seen as necessary means to correcting market failures and improving the efficiency of the economy.

2 Comparison of Government Loans and Loan Guarantee

Government loans refer to loans made by the government to businesses and individuals with funds raised from tax revenue, government bonds, and government borrowings. Such loans are granted in the two following forms: the direct loan where local governments or public organizations grant loans based on government funds; or the on-lending where the government passes on the responsibility of granting loans to financial institutions, which then grant loans on the government's behalf as its loan agencies.

Government can also provide financial support using the interest subsidy program, where the government compensates the difference between the market interest rate and the policy interest rate to program operators without making large investments as required by government loans. With this program, the beneficiary borrows money with policy interest rate from a private financial

institution instead of the government, and the government compensates that private financial institution for the difference between the policy interest rate and the market interest rate. This can be also considered as a form of government loan while interest subsidy largely reduces government expenses compared to other programs.

Finally, the government can also provide loan guarantees to borrowers. Loan guarantee has its advantage in the government does not have to raise funds in order to lend. Instead, when the beneficiary receives fiscal support from a private financial institution, the government provides a loan guarantee on the repayment of the debt to the institution. The Korea Credit Guarantee Fund and Korea Technology Finance Corporation are main government agencies handling these programs.

Loan guarantee is the most favored of all fiscal support programs, followed by interest subsidy, and then on-lending. Direct loans are the least favored. The private sector plays important roles in the interest subsidy and loan guarantee programs. However, the government determines loan conditions, amounts, and qualifications for the interest subsidy programs in Korea and financial institutions are to make loans according to those guidelines. Therefore, government intervention is much greater in the interest subsidy programs than in the loan guarantee programs.

〈Table II-1〉 Comparison of Government Loan Programs

Item	Direct loans	On-lending		Interest subsidies	Loan guarantees
		Loans to financial institutions	Commissioned loans		
Procurement of funds	Government	Government	Government	Private financial institutions	Private financial institutions
Do financial institutions need to bear the cost of financing?	No	No	No	Yes	Yes
Do financial institutions make profits?	No	Interest rate difference	Consignment fee	Base interest rate (government subsidy + interest payment)	Loan interest

〈Table II-1〉 Continue

Item	Direct loans	On-lending		Interest subsidies	Loan guarantees
		Loans to financial institutions	Commissioned loans		
Who handles the bad debt?	Government (public sector)	Commissioned financial institutions	Government (public sector)	Private financial institutions	Private financial institutions
Who decides loan conditions?	Government (public organization)	Government	Government	Private financial institutions ²⁾	Private financial institutions
Who decides loan qualifications?	Government (public organization)	Consigned financial institution	Consigned financial institution	Private financial institutions	Private financial institutions
Who performs follow-up loan management ¹⁾ (aside from the redemption of principals)	Government (public organization)	Consigned financial institutions	Consigned financial institutions	Private financial institutions	Private financial institutions

Note: 1. Follow-up management includes screening on whether the loan was used according to its original purpose.

2. In reality, loan conditions are determined by government.

In order to compare the amounts of government spending on each fiscal support program, each program's financing cost was converted to the present value. The financing cost²⁾ associated with the direct loan and the on-lending, based on the accrual basis, came to a total of 2.6314 trillion in 2013, while the financing cost of loan guarantees³⁾ amounted to 702.7 billion won. Unlike first two types, interest subsidies, representing the actual amounts paid in cash, cost the government a total of 424.4 billion won in 2013. Therefore, in terms of the cost alone, interest subsidy is the most sustainable way of fiscal support.

2) The amount of government loan expenses may be defined as the expenses the government incurs to raise the funds necessary for loans, i.e., the amount of difference between the interest rate on the funds the government raises and the interest rate on the loans the government provides, plus the expected amount of bad debts.

3) Guarantee expenses are expenses that the government pays based on the repayment rate of guaranteed loans when guarantee provisions increase.

Since government loans are provided in order to accomplish certain policy goals, it is necessary to evaluate how much each program of support contributes to accomplishing such goals. To accomplish policy goals in reality, answers are needed for the following questions: Does the beneficiary qualify for a loan? Can the beneficiary receive sufficient fiscal support within the limits set by the fiscal support program? Can the loan be provided to the beneficiary at a lower interest rate? In other words, the fiscal support program should be determined in the light of how much capital is available at the government's disposal. When comparing each support program in terms of available capital, direct loans carry the greatest possibility of accomplishing policy goals, followed by on-lending programs and interest subsidies, in the descending order.

3 Literature Survey

Previous studies on the government loan system have focused mainly on the improvement of the overall system and how to increase the efficiency of accounting and fund management. The study by Ko and Shin(2000) is a paradigmatic example. They criticize Korea's government loan system as being unsystematic, inefficiently managed, and excessively diversified, and cite the lack of clearly divided and defined roles respectively of the government and private capital market organizations as the main reason for the replacement of private capital with government loans. They also argue the necessity of establishing an interagency management system for the government loan program in Korea like those found in the United States and Japan; of accomplishing loan program efficiency through the fiscal support rate; of subjecting new loan programs to periodic reviews; and of merging programs that have similar purposes.

Kim et al.(2002), Hwang et al.(2002), and Lee(2008) argue for wholesale conversion to the interest subsidy program along with improvements of the government loan system. Kim et al.(2002), in particular, offer several suggestions for improving the fiscal support system, including conversion of the government loan programs to the interest subsidy programs, among others.⁴⁾

Hwang et al.(2002) and Lee(2008) examine the necessity and economic benefits of replacing government loans with interest subsidies in more detail. They argue that the shift to the interest subsidy program would result in the simplification of the fiscal support system, reduction of the fiscal scale, and the improvement of the fiscal balance in addition to various national economic benefits as well as decreases in operating and management costs. They also emphasize that the interest subsidy program would have positive impact on the development of the financial industry through the empowerment of the private sector.

Kim and Park(2009) provide the most recent study on the conversion to the interest subsidy program. They explain the advantages and disadvantages of the conversion from the fiscal perspective and point out the several preconditions that need to be met first, such as the establishment of a well-functioning financial market and of specialized financial institutions. The authors also argue that the fiscal support system and special accounting must also be reformed. They argue that a successful shift to the interest subsidy program should occur in the following order: First, identify programs that are more amenable than others to such shift. Second, standardize the current fiscal support and interest subsidy procedures. Third, encourage financial institutions participating in fiscal projects to participate, actively and voluntarily, in the required system reforms. Fourth, combine interest subsidies with credit guarantees and introduce a new organization or accounting system overseeing the entire amount of available funds. Sixth, design the interest subsidy system so that it accords maximum respect to the autonomy of financial institutions.

Expansion of Interest Subsidy Programs

A. Pros and Cons

Those who favor interest subsidies argue that this can reduce the burden

4) See Kim et al.(2002).

on the national economy and advance the financial market. Other reasons for favoring interest subsidies include the current financial conditions in which there is a clear shift toward greater liquidity and lower interest rates.

Proponents of interest subsidies claim that the interest subsidy program makes better use of the private sector, whose institutions are more capable of identifying and supporting borrowers with greater capability for repayment of loans, thereby ensuring greater efficiency in the distribution of resources throughout the national economy.

The National Assembly Budget Office in its 2013 budget took a negative stance against the expansion of interest subsidies, citing the following: lower cost reduction effect than direct loans in the long run;⁵⁾ heavier interest burdens on beneficiaries with low credit ratings; fewer opportunities to qualify for loans among beneficiaries with insufficient collaterals; and budget instability due to fluctuations in the base interest rate. Similar lines of arguments are found in other studies, such as Kim and Park(2009).

B. Comparison of Net Benefits of Loans and Interest Subsidies

The following variables were used to determine the difference in cost between loans and interest subsidies:⁶⁾

D : loan principal

i_f : fiscal support interest rate, $0 \leq i_f < 1$

b : fiscal support service charge

i : government loan interest rate, $i = i_f + b$, $0 \leq i < 1$

r : discount rate

r_b : base interest rate for interest subsidies

5) In the case of direct loans (or on-lending support), the beneficiary repays the principal with the interest. Therefore, the fiscal loan program is able to continue its business based on the repaid principals and interests. However, in the case of interest subsidies, the amount of subsidies continues to increase as the outstanding loan balance increases.

6) The equations used in the present study are modified versions of the equations put forth by Hwang et al.(2002, pp. 215–218). These authors base their calculations on the assumption that all principals would be repaid in full.

n : loan period

rep : repayment rate, $0 < rep \leq 1$

Under the government loan program, the government provides loan D in the initial year of the program, and receives interest $i_f D$ every year afterward. The loan principal is repaid to the government in the last year. However, the expected amount of repayment collectible is $repD$, taking into account the risk of default. On the other hand, when the same program is carried out under an interest subsidy program, the interest differential of $r_b - i$ should be paid for the same loan principal D every year.

〈Table II-2〉 Present Value of Fiscal Support Flow by Program Type

Type	Year 0	Year 1	Year 2		Year n	Total
Loans	$-D$	$\frac{i_f D}{1+r}$	$\frac{i_f D}{(1+r)^2}$	...	$\frac{i_f D}{(1+r)^n} + \frac{repD}{(1+r)^n}$	$-D + \frac{i_f D}{(1+r)} + \frac{i_f D}{(1+r)^2} + \dots + \frac{i_f D}{(1+r)^n} + \frac{repD}{(1+r)^n}$
Interest Subsidy	0	$-\frac{(r_b - i)D}{1+r}$	$-\frac{(r_b - i)D}{(1+r)^2}$	...	$-\frac{(r_b - i)D}{(1+r)^n}$	$-\left(\frac{(r_b - i)D}{1+r} + \frac{(r_b - i)D}{(1+r)^2} + \dots + \frac{(r_b - i)D}{(1+r)^n} \right)$

The amount of the net benefits (NB1) from the loan programs can be calculated as follows:

$$\begin{aligned}
 -D + \frac{i_f D}{(1+r)} + \frac{i_f D}{(1+r)^2} + \dots + \frac{i_f D}{(1+r)^n} + \frac{repD}{(1+r)^n} &= -D + i_f D \sum_{k=1}^n \frac{1}{(1+r)^k} + \frac{repD}{(1+r)^n} \\
 &= \left(\frac{rep}{(1+r)^n} - 1 \right) D + \frac{1}{1+r} \left(\frac{1}{(1+r)^n} - 1 \right) i_f D \\
 &= \left(\frac{rep}{(1+r)^n} - 1 \right) D - \frac{1}{r} \left(\frac{1}{(1+r)^n} - 1 \right) i_f D \\
 &= \left(\frac{rep}{(1+r)^n} - 1 \right) D - \left(\frac{1}{(1+r)^n} - 1 \right) \frac{i_f D}{r}
 \end{aligned}$$

And the amount of the net benefits (NB2) from the interest subsidy programs can be calculated as follows:

$$\begin{aligned}
 -\left(\frac{(r_b-i)D}{1+r} + \frac{(r_b-i)D}{(1+r)^2} + \dots + \frac{(r_b-i)D}{(1+r)^n}\right) &= -(r_b-i)D \sum_{k=1}^n \frac{1}{(1+r)^k} \\
 &= (r_b-i)D \frac{\frac{1}{1+r} \left(\frac{1}{(1+r)^n} - 1 \right)}{\frac{1}{1+r} - 1} \\
 &= \frac{(r_b-i)D}{r} \left(\frac{1}{(1+r)^n} - 1 \right)
 \end{aligned}$$

Hence, the difference in the amounts of net benefits from loan programs and interest programs:

$$\begin{aligned}
 \Delta NB &= NB1 - NB2 \\
 &= \left(\frac{rep}{(1+r)^n} - 1 \right) D - \left(\frac{1}{(1+r)^n} - 1 \right) \frac{i_f D}{r} - \frac{(r_b-i)}{r} D \left(\frac{1}{(1+r)^n} - 1 \right) \\
 &= \left[\left(\frac{rep}{(1+r)^n} - 1 \right) - \left(\frac{1}{(1+r)^n} - 1 \right) \frac{i_f}{r} - \frac{(r_b-i_f-b)}{r} \left(\frac{1}{(1+r)^n} - 1 \right) \right] D
 \end{aligned}$$

If the net benefit (NB1) from the loan programs is greater, that is, $NB1 - NB2 > 0$, then, it can be expressed as follows:

$$\left(\frac{rep}{(1+r)^n} - 1 \right) - \left(\frac{1}{(1+r)^n} - 1 \right) \frac{i_f}{r} - \frac{(r_b-i_f-b)}{r} \left(\frac{1}{(1+r)^n} - 1 \right) > 0$$

It can also be rewritten as follows:

$$\begin{aligned}
 \frac{rep}{(1+r)^n} - 1 - \frac{r_b-b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) &> 0 \\
 rep - (1+r)^n - \frac{r_b-b}{r} (1 - (1+r)^n) &> 0 \\
 rep - 1 + 1 - (1+r)^n &> \frac{r_b-b}{r} (1 - (1+r)^n)
 \end{aligned}$$

$$rep - 1 > \frac{r_b - b - r}{r} (1 - (1 + r)^n)$$

$$1 - rep > \frac{r_b - b - r}{r} ((1 + r)^n - 1)$$

If the repayment rate is 100%, that is $rep = 1$, then the above equation is valid as long as $r_b - b - r > 0$. In other words, if the base interest rate on the interest subsidies is greater than the sum of loan service charges and discount rates, the net benefit the government receives from the loan programs is always greater. However, if the repayment rate is less than 100%, that is $rep < 1$, then the above equation may not be valid depending on the loan period n . In this case, it assumes $r_b - b - r > 0$.⁷⁾ If the loan period is not long enough, the net benefit the government receives from loan programs cannot be greater than is the case with interest subsidies. In other words, for short-term loans interest subsidies are more beneficial to the government, and for long-term loans, loan programs are.

If the government can collect all loans, the government loan is more beneficial than the interest subsidy program. Otherwise, it is more advantageous to switch to interest subsidies for short-term loans.⁸⁾

On the other hand, if $r_b - b - r < 0$, the above equation is never valid regardless of the repayment rate. That is, if the base interest rate on interest subsidies is smaller than the sum of loan service charges and discount rates, it is more advantageous to apply the interest subsidy program at all times.

However, since the service charge on government loans ranges between 0.5 to 1.5 percent of the loan amount in general, the relative sizes of the three

7) The repayment rate in the fiscal loan programs is quite high in general. However, there are institutions with repayment rates below 90 percent. According to the National Assembly Budget Office(2010), 58.45 percent of the fiscal loan programs had repayment rates ranging from 96 to 100 percent, and 9.15 percent had repayment rates of 90 percent or less as of 2010. For eight programs among these, the repayment rate was 70 percent or less. Therefore, if we consider the repayment rate as being less than 100 percent on average, the interest subsidy program is more beneficial than the fiscal loan for the government with respect to short-term loans with low interest rates.

8) Lending institutions that operate government funds are responsible for repayment. Thus, from the viewpoint of government, the repayment rate is always 100 percent.

variables depend on the base interest rate on interest subsidies and the discount rate. The base interest rate on interest subsidies reflects the market interest rate. The discount rate should reflect the opportunity cost of the loan fund. Therefore, it is very likely to be determined at a rate comparable to the market interest rate, at which returns would be generated if the government had invested its loan fund elsewhere. In other words, realistically speaking, $r_b - b - r < 0$ would prevail in most cases. This implies that the interest subsidy program is the better choice for government.⁹⁾ Furthermore, the interest subsidy program is more advantageous to government regardless of loan periods because, in the case of $r_b - b - r < 0$, $1 - rep$ is greater irrespective of the loan period n . This opposes other studies by the National Assembly Budget Office (2012) and Kim and Park (2008), each of which point out that though the initial funding cost for the interest subsidy program would be lower than loan, it is disadvantageous in the long run because of annual interest payments.

How would the loan programs and interest subsidies benefit financial institutions differently? The more willing financial institutions are to accept interest subsidy programs, the less the possibility of the target beneficiaries of these programs to be excluded from the benefits of these programs¹⁰⁾

Under an interest subsidy program, a financial institution makes a loan D in the initial year, and receives the interest $r_b D$ every year afterward. However, repayment default is their responsibility, not the government's. Therefore, the expected loan repayment is $repD$ in the last year. On the other hand, under the on-lending program, repayment defaults are also under the responsibility of financial institutions. Financial institutions receive the principal D from the government and make a loan for the same amount D in the initial year. The net cash flow of financial institutions in the initial year amounts to 0. The

9) The discount rate should reflect the opportunity cost of the loan fund, i.e., the expected amount of returns the government would have gained had it invested the loan fund elsewhere. For government programs, the social discount rate can be applied. Lee and Kim (2013) suggest a reasonable social discount rate as somewhere between 5 and 5.5 percent, a rate that is commonly used in preliminary feasibility studies on the fiscal support programs.

10) This analysis was conducted based on the on-lending (government loan to financial institutions) method, the most common form of fiscal support in Korea.

expected profit for financial institutions is $repD$ and financial institutions should pay back the principal D in the last year. Also, financial institutions can benefit from loan service charges b during the loan period.

〈Table II-3〉 Present Values of Cash Flows at Financial Institutions by Program Type

Type	Year 0	Year 1	Year 2	...	Year n	Total
Loans	0	$\frac{bD}{1+r}$	$\frac{bD}{(1+r)^2}$	...	$\frac{bD}{(1+r)^n} + \frac{repD}{(1+r)^n} - \frac{D}{(1+r)^n}$	$\frac{bD}{1+r} + \frac{bD}{(1+r)^2} + \dots + \frac{bD}{(1+r)^n} + \frac{repD}{(1+r)^n} - \frac{D}{(1+r)^n}$
Interest Subsidies	$-D$	$\frac{r_b D}{1+r}$	$\frac{r_b D}{(1+r)^2}$	...	$\frac{r_b D}{(1+r)^n} + \frac{repD}{(1+r)^n}$	$-D + \frac{r_b D}{1+r} + \frac{r_b D}{(1+r)^2} + \dots + \frac{r_b D}{(1+r)^n} + \frac{repD}{(1+r)^n}$

The amount of net benefits (NB3) for financial institutions from the loan programs can be calculated as follows:

$$\begin{aligned} \frac{bD}{1+r} + \frac{bD}{(1+r)^2} + \dots + \frac{bD}{(1+r)^n} + \frac{repD}{(1+r)^n} - \frac{D}{(1+r)^n} &= (rep-1) \frac{D}{(1+r)^n} + bD \sum_{k=1}^n \frac{1}{(1+r)^k} \\ &= \frac{rep-1}{(1+r)^n} D - \frac{b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) D \end{aligned}$$

The amount of net benefit (NB4) for financial institutions from interest subsidies can be calculated as follows:

$$\begin{aligned} -D + \frac{r_b D}{1+r} + \frac{r_b D}{(1+r)^2} + \dots + \frac{r_b D}{(1+r)^n} + \frac{repD}{(1+r)^n} &= -D + \frac{repD}{(1+r)^n} + r_b D \sum_{k=1}^n \frac{1}{(1+r)^k} \\ &= \left(\frac{rep}{(1+r)^n} - 1 \right) D - \frac{r_b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) D \end{aligned}$$

The difference in the amounts of net benefits can be calculated as follows:

$$\begin{aligned}\Delta NB_b &= NB3 - NB4 \\ &= \left[\frac{rep-1}{(1+r)^n} - \frac{b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) - \left(\frac{rep}{(1+r)^n} - 1 \right) + \frac{r_b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) \right] D \\ &= \left[\frac{rep-1}{(1+r)^n} - \left(\frac{rep}{(1+r)^n} - 1 \right) + \frac{r_b-b}{r} \left(\frac{1}{(1+r)^n} - 1 \right) \right] D\end{aligned}$$

Thus, the relative benefits of the loans and interest subsidies vary depending on the coefficient of D . If the loan is advantageous, the coefficient may change as follows:

$$\begin{aligned}rep-1 - rep + (1+r)^n + \frac{r_b-b}{r} (1 - (1+r)^n) &> 0 \\ \frac{r_b-b-r}{r} (1 - (1+r)^n) &> 0\end{aligned}$$

In this equation, $1 - (1+r)^n$ is always a negative number. As explained earlier, the base interest rate on interest subsidies (r_b) is determined at a rate close to the discount rate (r), which makes $r_b - b - r$ a negative number. Therefore, the above equation is always valid. When financial institutions take the risk of bad debts, the loan is more advantageous for them.¹¹⁾

A net benefit comparison between loans and interest subsidies from the viewpoint of government and financial institutions reveals that interest subsidies are more advantageous to government while loans are more advantageous to financial institutions considering the possible interest rates and loan service charges in reality. If the government wishes to expand the interest subsidy program through increasing the participation of financial institutions, it is necessary to set the interest rate so as to guarantee adequate profits for those institutions.

11) Even in the commissioned loan where financial institutions are not responsible for bad debts, the loan seems more advantageous than the interest subsidy program for financial institutions.

III

Overview of Government loan and Interest Subsidy Programs

1 Accounts and Funds

Interest subsidy and government loan programs of the Korean government currently draw upon the general account, three special accounts, and 28 funds. In terms of the fund scale, the loan program managed by the National Housing Fund amounts to about 15.8748 trillion won (as of 2013), accounting for more than half of the total budget for the fiscal support programs, which is 29.6951 trillion won. The next largest funds are the Small and Medium Enterprises Establishment and Promotion Fund and the Price Stabilization of Agricultural Product Fund. The programs under these accounts/funds support vulnerable groups, including low-income households, agriculture, forestry and fisheries, and small and medium enterprises.

<Table III-1> Loan and Interest Subsidy Budget and Programs under Each Account/Fund

(Unit: billion won)

Account/fund		Budget			No. of programs		
		2011	2012	2013	2011	2012	2013
Account	General Account	499.5	323	420	9	7	8
	Special Accounts for the Structural Improvement of Agricultural and Fishing Villages	155.6	621.1	629.4	10	13	13
	Special Accounts for Energy and Resources Projects	1,157.6	960.6	682.2	10	9	9
	Special Account for Environmental Improvement	133.9	133.9	153.5	5	5	5
	Subtotal	1,946.6	1,747.8	1,507.0	34	34	35
Fund	Price Stabilization of Agricultural Product Fund	1,359.9	1,392.8	1,651.6	10	11	11
	Tourism Promotion and Development Fund	213.1	246.2	292.0	2	1	1
	Patriots and Veterans Fund	475	441	456	4	4	4
	National Housing Fund	13,561.6	15,025.3	15,874.3	9	9	10
	Industrial Accident Compensation Insurance and Prevention Fund	124.8	121.4	108.1	3	3	3
	Economic Development Cooperation Fund	604.7	615.2	668.6	1	1	1
	Farmland Management Fund	592.0	629.6	654.1	5	5	5
	Inter-Korean Cooperation Fund	187.4	176.8	194.7	3	3	3
	Public Capital Management Fund	103.0	530	384	8	6	5
	Employment Insurance Fund	142.5	111.0	124.5	7	7	7
	Information and Communications Promotion Fund	300	302	272	1	1	1
	Military Welfare Fund	403	368	179.8	2	2	3
	Fishery Development Fund	505.7	508.0	518.4	10	10	10
	Civil Service Pension Fund	1,237.2	1,441.3	1,401.0	2	2	2
	Private School Promotion Fund	270.1	240.0	234.7	3	3	2
	Specific Substance Use Rationalization Fund	25	24	23	1	1	1
	Labor Welfare Promotion Fund	451	444	508	3	1	1
	Livestock Development Fund	240.1	286.3	526.5	9	9	10
	Teachers' Pension Fund	1,604.4	1,666.3	1,672.6	2	2	2
	Broadcasting Development Fund	420	370	342	2	2	2
	Power Industry Infrastructure Fund	200	180	150	1	1	1
	National Sports Promotion Fund	75	82	82	1	1	1
	Emergency Medical Service Fund	100	100	30	1	1	1
	Small and Medium Enterprise Establishment and Promotion Fund	3,207.5	3,333.0	3,357.5	6	7	9
	FTA Implementation Support Fund	173.5	270.2	367.0	5	5	5
	Local Press Development Fund	10	0	0	1	0	0
	Media Promotion Fund	24	30	24	1	1	1
	Wage Claim Guarantee Fund	0	0	50	0	0	1
	National Pension Fund	0	300	300	0	1	1
	Subtotal	24,375.8	26,380.5	28,188.1	103	100	103
	Total	26,322.4	28,128.4	29,180.3	137	134	138

Sources: Government of the Republic of Korea, "Specifications of Revenue," each fiscal year; Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea.

As of 2013, there were 20 interest subsidy programs drawing upon three accounts and four funds.¹²⁾ In particular, the number of programs managed by the Special Account for the Structural Improvement of Agricultural and Fishing Villages increased from three programs in 2012 to five in 2013.

The General Account managed the largest number of interest subsidy programs, followed by the Special Account for the Structural Improvement of Agricultural and Fishing Villages. However, the Special Account for the Structural Improvement of Agricultural and Fishing Villages provided the greatest amount at 483.2 billion won (as of 2013), accounting for 66.0 percent of the total budget for the interest subsidy programs. In the case of the National Housing Fund, the First Home Purchase Support Fund (25 billion won) and Public Housing Sales (30 billion won) were newly assigned to interest subsidy programs.

〈Table III-2〉 Interest Subsidy Budget and Programs under Each Account/Fund

(Unit: million won)

Account/Fund	Budget			No. of Programs		
	2011	2012	2013	2011	2012	2013
General Account	499,513	32,286	41,956	9	7	8
Special Account for the Structural Improvement of Agricultural and Fishing Villages	7,800	444,696	483,223	1	3	5
Special Account for Energy and Resources Projects	40,500	39,035	42,485	2	2	2
Public Capital Management Fund	0	100,000	100,000	0	1	1
National Housing Fund	0	0	55,000	0	0	2
Military Welfare Fund	0	0	1,139	0	0	1
Small and Medium Enterprise Establishment and Promotion Fund	0	0	7,500	0	0	1
Total	547,813	616,017	731,303	12	13	20

Sources: Digital Budget Accounting System, "Specification of Revenue," each fiscal year; Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea.

12) Interest subsidy programs support the interest difference against the principal loaned by financial institutions. However, there are some programs that support the interest difference against the principal of direct loans or transferred loans. Even though these programs are categorized as interest subsidy programs in the budget bill, they are excluded from consideration in this study.

2 Government loans by Function

Our examination of loan and interest subsidy programs by function revealed that 120 programs were carried out in agriculture, forestry and fisheries, the largest number of specific programs, followed by 41 programs in social welfare, and 19 programs for industries, small and medium enterprises, and energy. Budget-wise, social welfare claimed the largest amount due to the massive housing loan programs. Loan programs in social welfare supported various areas including basic livelihood security, the elderly, youth, labor, childcare, family and women, housing, veterans and other vulnerable groups. Loan programs for industries, small and medium enterprises, and energy went mostly toward energy companies and small and medium enterprises.

〈Table III-3〉 Loan and Interest Subsidy Programs by Function

(Units: million won, %)

Area	No. of programs		Budget	
General public administration	4	1.9	1,522,433	5.1
Public order safety	1	0.5	1,983	0.0
Foreign affairs and unification	5	2.4	863,300	2.9
National defense	5	2.4	192,894	0.6
Education	2	0.9	234,735	0.8
Culture and tourism	4	1.9	322,600	1.1
Environment	5	2.4	153,474	0.5
Social welfare	41	19.4	17,951,994	60.5
Healthcare	1	0.5	3,000	0.0
Agriculture, forestry and fisheries	120	56.9	4,349,009	14.6
Industries, small and medium enterprises, and energy	19	9.0	4,056,996	13.7
Transportation and logistics	2	0.9	1,330	0.0
Communication	2	0.9	41,400	0.1
Total	211	100.0	29,695,148	100.0

Sources: Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea; Ministry of Strategy and Finance, "Fund Status," each fiscal year.

When we classify interest subsidy programs by function, programs in agriculture, forestry and fisheries comprised an overwhelmingly large portion, at 77.8 percent of all interest subsidy programs in terms of program number, and 66.4 percent in terms of the budget. Interest subsidy programs were implemented more actively in agriculture, forestry and fisheries than in other areas because related financial institutions including the National Agricultural Cooperative Bank, the National Federation of Fisheries Cooperatives, and the National Forestry Cooperatives Federation were already handling policy financing programs that were amenable to conversion into interest subsidy programs.

◁Table III-4▷ Interest Subsidy Programs by Function (2013)

(Units: %, million won)

Area	No. of programs	Percentage	Budget	Percentage
General public administration	2	3.2	121,433	16.6
Agriculture, forestry and fisheries	49	77.8	485,232	66.4
National defense	3	4.7	14,194	1.9
Social welfare	3	4.7	57,146	7.8
Public order safety	1	1.6	1,983	0.3
Transportation and logistics	2	3.2	1,330	0.2
Industries, small and medium enterprises, energy	3	4.7	49,985	6.8
Total	63	100.0	731,303	100.0

Note: The respective shares of programs as percentages of the total were rounded off to the nearest tenth, causing a 0.1 margin of error.

Sources: Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea; Ministry of Strategy and Finance, "Fund Status," each fiscal year.

3 Fiscal Support Distribution by Type

The most common type of fiscal support is the on-lending, in terms of both the number of programs and the budget size. Although the interest subsidy

program was the second largest in terms of the number of programs, its budget share comprised only 2.5 percent, as these programs concern only the differences in interests.

The role of private financial institutions in the direct government loan and on-lending programs is marginal compared to their roles in interest subsidy programs. In other words, Korea makes very little use of private financial institutions in providing fiscal support.

〈Table III-5〉 Fiscal Support Distribution by Type (2013)

(Units: million won, %)

Fiscal support type	No. of programs	Percentage	Budget	Percentage
Direct loans	34	16.1	5,198,667	17.5
Direct loans + on-lending	20	9.5	4,375,678	14.7
On-lending	94	44.5	19,389,500	65.3
Interest subsidies	63	29.9	731,303	2.5
Total	211	100.0	29,695,148	100.0

Sources: Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea; Ministry of Strategy and Finance, "Fund Status," each fiscal year.

We divided recipients of fiscal support between organizations and individuals, and identified the types of support they received (Table III-6 and Table III-7). Organizations and individuals working in agriculture, forestry and fisheries received more interest subsidies than other forms of support. However, the budget share earmarked for these industries in the interest subsidy programs was the smallest, while budget shares for the on-lending programs and direct loans took up more than a half of the total. On the other hand, 58 percent of all other industries except for agriculture, forestry and fisheries have relied on on-lending programs. Low-income groups also relied mainly on on-lending programs, which constituted nine programs out of the total 13 programs aimed at vulnerable groups. These programs included loans for home ownership and lease, financial assistance for businesses for low-income groups, and loans for vocational trainees' living expenses. In terms of budget, 99.7 percent of fiscal support to low-income groups was provided through the on-lending programs.

〈Table III-6〉 Distribution of Loan and Interest Subsidy Programs by Recipient Type

(Unit: %)

Recipient type		fiscal support type				
		Total	Direct loans	Direct loan + on-lending	On-lending	Interest subsidies
Organization	Agriculture, forestry and fisheries industries	107	12 (11.2)	4 (3.7)	34 (31.8)	57 (53.3)
	Corporations	69	8 (11.6)	12 (17.4)	40 (58.0)	9 (13.0)
	Public organizations	5	2 (40.0)	0 (0.0)	1 (20.0)	3 (40.0)
	Local governments	1	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Private schools	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
Individual	Low-income groups	13	2 (15.4)	0 (0.0)	9 (69.2)	2 (15.4)
	Soldiers	4	1 (25.0)	0 (0.0)	1 (25.0)	2 (50.0)
	Government employees	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Individuals of merit	4	0 (0.0)	4 (100.0)	0 (0.0)	0 (0.0)
	Private school teachers	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Persons with disabilities	3	0 (0.0)	0 (0.0)	3 (100.0)	0 (0.0)
	Women	1	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)
	Farmers/fishers	2	1 (50.0)	0 (0.0)	0 (0.0)	1 (50.0)
	General public	7	1 (14.3)	0 (0.0)	4 (57.1)	2 (28.6)
Others		1	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)
Total		223	34 (100.0)	20 (100.0)	94 (100.0)	75 (100.0)

- Notes: 1. Recipient types were identified according to information provided on the loan applications.
2. Agriculture, forestry and fisheries include individuals or organizations that produce agricultural, forestry or marine products.
3. Corporation: an organization that produces goods or services other than agricultural, forestry or marine products.
4. Low-income group: individuals earning income below a certain level.
5. General public: members of the general public meeting eligibility requirements for loans.
6. Others: foreigners and recipients unknown
7. Figures in parentheses represent the respective shares of fiscal support types provided for the given group.
8. Fiscal support provided for corporations and public organizations may be intended to benefit low-income groups; however this study counts the primary recipients of fiscal support only.
- Sources: Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea; Ministry of Strategy and Finance, "Fund Status," each fiscal year.

〈Table III-7〉 Fiscal Support Budget Distribution by Loan Recipient Type (2013)

(Units: 100 million won, %)

Recipient type		Total	Direct loans	Direct loan + on-lending	On-lending	Interest subsidies
Organizations	Agriculture, forestry and fisheries industries	107	12 (11.2)	4 (3.7)	34 (31.8)	57 (53.3)
	Corporations	69	8 (11.6)	12 (17.4)	40 (58.0)	9 (13.0)
	Public organizations	5	2 (40.0)	0 (0.0)	1 (20.0)	3 (40.0)
	Local governments	1	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Private schools	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
Individuals	Low-income groups	13	2 (15.4)	0 (0.0)	9 (69.2)	2 (15.4)
	Soldiers	4	1 (25.0)	0 (0.0)	1 (25.0)	2 (50.0)
	Government employees	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Individuals of merit	4	0 (0.0)	4 (100.0)	0 (0.0)	0 (0.0)
	Private school teachers	2	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Persons with disabilities	3	0 (0.0)	0 (0.0)	3 (100.0)	0 (0.0)
	Women	1	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)
	Farmers/fishers	2	1 (50.0)	0 (0.0)	0 (0.0)	1 (50.0)
	General public	7	1 (14.3)	0 (0.0)	4 (57.1)	2 (28.6)
	Other	6,686	0 (0.0)	0 (0.0)	6,686 (100.0)	0 (0.0)
Total		296,951	51,987 (100.0)	43,757 (100.0)	193,895 (100)	7,313 (100)

- Notes: 1. Recipient types were identified according to information provided on the loan applications.
2. Agriculture, forestry and fisheries include individuals or organizations that produce agricultural, forestry or marine products.
3. Corporation: an organization that produces goods or services other than agricultural, forestry or marine products.
4. Low-income group: individuals earning income below a certain level.
5. General public: members of the general public meeting eligibility requirements for loans.
6. Others: foreigners and recipients unknown
7. Figures in parentheses represent the respective shares of fiscal support types provided for the given group.
8. Fiscal support provided for corporations and public organizations may be intended to benefit low-income groups; however this study counts the primary recipients of fiscal support only.
- Sources: Each fiscal year's budget bills, submitted by the ministries and departments of the Government of the Republic of Korea; Ministry of Strategy and Finance, "Fund Status," each fiscal year.

4 Interest Subsidy Program Analysis and Evaluation

A. Budget Execution

In 2011, 98.7 percent of the budget set aside for interest subsidy programs was executed. However, it decreased to 72.1 percent in 2012 and 54.8 percent in 2013. In particular, programs under the Special Account for the Structural Improvement of Agricultural and Fishing Villages showed a drastic decrease: its average execution rate stood at 101.3 percent in 2011, but dropped severely to 46.5 percent in 2013, in just two years. This decrease may be explained by two factors. First, because the base interest rate at the time of execution was lower compared to the base interest rate for a loan at the time of budget appropriation. Second, the economic downturn has caused a decrease in use of the interest subsidy programs among businesses, thus decreasing the use of the Comprehensive Agricultural Fund, and the Agriculture and Livestock Management Fund, and others.

B. Analysis of Interest Subsidy Program Examples

This study selected two programs, the Comprehensive Agricultural Fund and the Energy Saving Company (ESCO) Promotion Program, in order to examine and evaluate the management and effect of the interest subsidy programs. The Comprehensive Agricultural Fund was initially a program combining treasury loans and financial institution loans, but became a program of exclusively financial institution loans in 2009, with the total amount of loans it provides increasing continuously since then. However, when the loan program was converted into an interest subsidy program, the budget took a drastic cut. When we compare the share of the program in the government fiscal support budget before and after 2009, we see that the share of the program made up 21 percent of the total budget when it was a loan program in 2008, but the share dropped to 6 percent after 2009. The Comprehensive Agricultural Fund example shows us that the government was able to reduce expenses considerably while at the same time increasing interest subsidies available for beneficiaries.

However, the government, and not financial institutions, still determines the interest rates and terms of support for the Comprehensive Agricultural Fund, thereby not making full use of the resources and expertise financial institutions can offer. It has also been pointed out that investments were not made smoothly to venture businesses that required large-scale facility investments because loans were approved based on repayment capability and not on business evaluations (Park et al. 2011, p. 31). Since the Comprehensive Agricultural Fund made loans mainly for operations and not for facilities, it limited businesses' capabilities to enhance their competitiveness. Another reason for the little use of the Comprehensive Agricultural Fund was that it was forced to compete with other similar government loan programs.

The ESCO Promotion Program provides another example of the increasing interest subsidies. Until 2012, fiscal support was directed to large companies only, but by 2013 strong small and medium enterprises began to benefit as well. The fiscal support granted to large companies was provided only as interest subsidies. As a result, the total amount of fiscal support for ESCOs dropped over time, while the amount of support for small and medium enterprises increased. From these two examples, it can be argued that the interest subsidy programs clearly help the government cut its spending. Nevertheless, interest subsidy programs today fail to maximize the efficiency of the overall economy by failing to make use of available resources and expertise in the private sector.

C. Similar and Overlapping Support Programs

There are some cases where interest subsidies are introduced while loan programs serving similar purposes remain intact. Such programs should be switched to interest subsidy programs first in the interest of efficiency. Classic examples are Housing Loans for Military Officers (Military Welfare Fund), the Support Project for Newly Built Advanced Greenhouses (Special Account for the Structural Improvement of Agricultural and Fishing Villages and FTA Fund), and the Livestock Environment Modernization Program (Special Accounts for the Structural Improvement of Agricultural and Fishing Villages and the FTA Fund).

Examples like the Support Project for Newly Built Advanced Greenhouses

and the Livestock Environment Modernization Program show the absence of consistency in fiscal support management. The Support Project for Newly Built Advanced Greenhouses supports large-scale farmers with loans, while the Livestock Environment Modernization Program provides interest subsidies. This kind of redundancy occurs because there is no consistent principle with which decision-makers can take into account the ability of loan recipients to provide security collaterals and their credit standing. Since low-income farmers and small farmers lack the capability to put up security collaterals as demanded by the private sector, it seems more reasonable to support small farmers through loans than interest subsidies.

IV

Credit Policies in Other Countries

1 United States¹³⁾

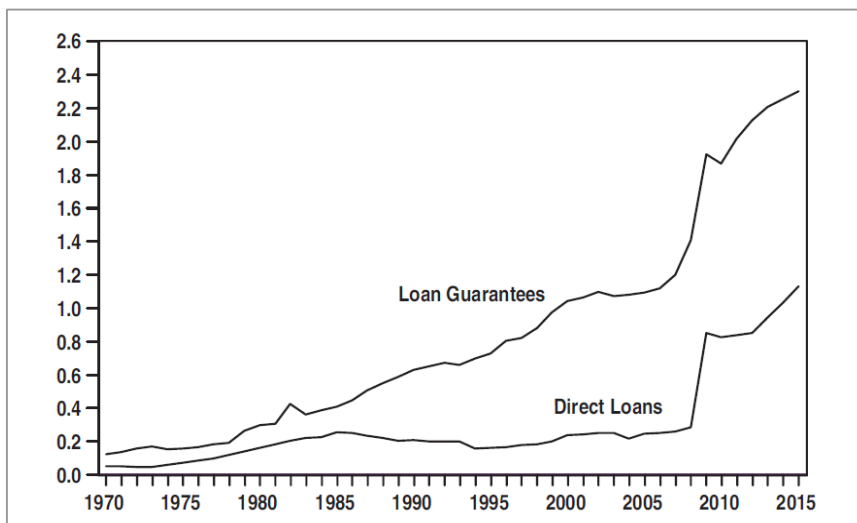
A. Government loans

The credit policy of the US federal government mainly comprises direct loans and loan guarantees. As of 2013, the US government provided 3.154 trillion dollars in these forms of support, or 947 billion dollars and 2.207 trillion dollars in direct loans and loan guarantees, respectively.¹⁴⁾ The rate of increase in loan guarantees is relatively higher than is the case of direct loans. Loan guarantees increased dramatically in the late 2000s.

13) Refer to US Government, "Budget of the United States Government: Analytical Perspectives," 2014.

14) The size of direct loans refers to the outstanding loan (not repaid) balance up to that point and the size of loan guarantees refers to the guaranteed loan balance up to that point.

[Figure IV-1] Long-term Trends in Direct Loans and Loan Guarantees in the United States



Source: US Government, "Budget of the United States Government: Analytical Perspectives," 2014, chart 20-1.

The major federal credit programs include the Housing Credit, Education Credit, Small Business and Farm Credit, Energy and Infrastructure Credit, and International Credit. Education credit accounts for about 66 percent of direct loans (about 623 billion dollars), and farming and farmland related credits are the next largest. For loan guarantees, mortgage-related programs take up the greatest share of the budget, followed by the education credit.

The US government manages loan programs on the basis of necessity and appropriateness. In determining whether or not to continue loan programs, it reviews the given programs every two years in terms of the required amounts of budgetary support. Such periodic program evaluation is aimed at minimizing market distortions caused by government financing and also at taking full advantage of market resources by combining fiscal support with market principles. Moreover, that loan guarantees make up the majority of fiscal support programs shows that the US government is more keen on leveraging private resources than government ones.

Another feature of the US government loan system is its consistent and integrated fiscal support management system. The Office of Management and Budget defines the role of each department regarding fiscal support and provides evaluation and execution guidelines (Circular No. A-129). In addition, the Analytical Perspectives, the US federal government's guide on government budgets, provides detailed information on government loan sizes, outstanding loan balances, fiscal support rates, and fiscal support costs. Of particular note here is the way the US government evaluates the benefits of fiscal support programs in terms of the fiscal support rate and fiscal support cost, and includes such evaluations in its standards for fiscal management.

B. Examples of Interest Subsidies

The Federal Family Education Loan (FFEL) program, which was part of the US government's student loan support until 2010, provided both interest subsidies and loan guarantees.¹⁵⁾ The FFEL program, launched with the Higher Education Act of 1965, ended in 2010 as many schools switched to direct loan programs due to the financial crisis and increasing uncertainty.¹⁶⁾ The FFEL program accounted for 78 percent of federal student loans from 2005 to 2008, but dropped to 69 percent in 2009. It would have decreased further to 55 percent in 2010 and to 40 percent in 2013 had it been still in effect. The Obama administration, citing its inefficiency, abolished FFEL, converting it into a direct loan program under the Health Care and Education Reconciliation Act passed in 2010. One of Obama's main criticisms of FFEL was the fact that the US government paid billions of dollars to banks to act as "middlemen" each year.¹⁷⁾ A fair-value basis evaluation of the student loan program conducted by the Congressional Budget Office revealed that the US government could save 40 billion dollars¹⁸⁾ between 2010 and 2020 if student loans under loan guarantee

15) US Department of Education, <http://www2.ed.gov/programs/ffel/index.html>

16) Congressional Budget Office, "Budgetary Impact of the President's Proposal to Alter Federal Student Loan Programs," <http://www.cbo.gov/publication/21315>

17) The White House, http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-Higher-Education/

and interest subsidy programs were converted to direct loan programs. Many interest subsidy programs were thus replaced with direct loans accordingly.

Another example of interest subsidies is the Indian Affairs Loan Guaranty, Insurance, and Interest Subsidy Program.¹⁹⁾ The government provides loan guarantees, insurance, and interest subsidies to qualifying Native Americans who apply for loans in order to start businesses or raise funds based on the Code of Federal Regulations, Title 25, Part 103. The Division of Capital Investment pays financial institutions the difference between the interest rate set by financial institutions and the Indian Financing Act rate. The initial period of interest subsidies is three years with a two year extension option.

2 Japan

A. Fiscal Support Today

Japan reformed its policy financing system in order to overcome the prolonged economic downturn that resulted from the bubble burst of the 1990s. Tokyo devised the “Outline of Administrative Reform” in 2000, and the “Basic Policy for Fundamental Reform of Policy Financing” in 2002. The latter limited policy financing to “areas of high public interest and difficult risk assessment.” Japan established three basic government financing policies in 2005, thus updating the basic policies established in 2002, emphasizing the need to supplement the private sector, the elimination of government privileges, minimization of government assets and greater consistency with restructuring as the basic principles of new government financing. Supplementing the private sector involves reducing the amount of capital accumulated in the private sector. The elimination of government privileges means government should avoid putting pressure on financial institutions. Greater consistency with restructuring principles can be ensured with the government avoiding the accumulation of

18) It is expected to save an additional 22 billion dollars, in terms of the future administration costs, over the same period.

19) US Department of Interior, <http://www.indianaffairs.gov/WhoWeAre/AS-IA/IEED/DCI/index.htm>

unnecessary in the interest of fiscal soundness (Park et al. 2011, pp. 42–43).

As of 2014, Japan's fiscal investments and support programs went toward stimulating consumption, supporting corporate finance, providing education/welfare/medical service support, and undertaking highway and urban redevelopment projects.²⁰⁾ The 2014 fiscal budget amounted to 16.180 trillion yen, a 12 percent increase from 2013. Industrial investment amounted to 317.2 billion yen, a 20.2 percent increase from 2013.

The most significant feature of Japan's government investment and loan system is that fiscal support is provided by public financial institutions or public organizations (Park et al. 2009). In other words, funds are first directed to investment and loan organizations rather than directly to businesses and individuals. Japan Highway Corporation uses the fund for road construction, and "policy banks" refinance small and medium enterprises and construction companies

Also, Japan operates a dual credit supplementation system, composed of the credit guarantee system and the credit insurance system, a guarantee system unique to Japan (Kim et al. 2004, p. 121).

〈Table IV-1〉 Fiscal Support and Investment Distribution in Japan for FY2014

(Unit: billion yen)

	FY2013	FY2014	Annual Change (%)
1. Support for stimulating private investments	450.8	570.1	26.5%
Japan Oil, Gas and Metals National Corporation	115.8	84.4	
Institutes supporting overseas transport and urban development projects	—	109.5	
Cool Japan Fund Inc.	50.0	30.0	
Private Finance Initiative Promotion Corporation of Japan	240.0	321.2	
Agriculture, Forestry and Fisheries Fund for Innovation and Value-chain Expansion	35.0	15.0	
Innovation Network Corporation of Japan	10.0	10.0	

20) Japan, Ministry of Finance, Outline of FILP Plan for FY2014, <http://www.mof.go.jp/english/filp/plan/fy2014/zt001.pdf>

〈Table IV-1〉 Continue

	FY2013	FY2014	Annual Change (%)
2. Fiscal support for enterprises	8,362.9	7,198.0	13.9%
Japan Finance Corporation (Small & Medium Enterprise Operations Micro Business and Individual Operations)	4,070.5	3,830.5	
Japan Finance Corporation (Operations to Facilitate Crisis Responses)	1,632.0	1,032.0	
Japan Bank for International Cooperation	1,260.0	831.0	
Development Bank of Japan Inc.	650.0	650.0	
Japan International Cooperation Agency (Finance and Investment Account)	384.4	482.0	
Shoko Chukin Bank, Ltd.	—	13.5	
3. Institutions supporting education, welfare, and medical services	1,408.0	1,421.6	1.0%
Japan Student Services Organization	860.5	859.6	
Welfare and Medical Service Agency	420.5	398.6	
Japan Community Health Care Organization	—	31.9	
4. Other institutions (expressway, urban renewal)	3,316.9	2,907.3	12.3%
Japan Expressway Holding and Debt Repayment Agency	2,386.0	1,940.0	
Urban Renaissance Agency	491.0	556.1	
5. Local governments	4,851.0	4,083.0	15.8%
Local Governments	3,681.0	3,453.0	
Japan Finance Organization for Municipalities	1,170.0	630.0	
FILP Plan	18,389.6	16,180.0	12.0%

Source: Ministry of Finance of Japan, "Outline of FILP Plan for FY2014," 2014.

B. Examples of Interest Subsidies

Japan has introduced its interest subsidy programs so as to better help economic actors overcome possible financial and economic crises.²¹⁾ In times of financial crises or natural disasters, for instance, the Japanese government places low interest funds in designated private financial institutions under an

21) Japanese Finance Corporation, <https://www.jfc.go.jp/n/company/fc.html>

interest subsidy scheme. The main beneficiaries are small and medium enterprises facing financial difficulties as a result of such crises. The Japanese government subsidizes Japan Policy Finance Corporation, which directs interest subsidies to designated financial institutions, and financial institutions then grant low interest loans to businesses. In 2014, the interest subsidy budget of Japan Policy Finance Corporation amounted to 19.6 billion yen, an increase of 6.1 billion yen from 2013. The amount of interest subsidies granted has increased dramatically in Japan over the last three years. However, because the share of interest subsidies in the total loss suffered by Japan Policy Finance Corporation was only 2.7 percent in 2012, no specific actions were undertaken against such a sudden increase in interest subsidies. Thus over the past three years, the net loss for Japan Policy Finance Corporation each ranged between 286.3 and 886.5 billion yen.

United Kingdom

A. Examples of Interest Subsidies

The Export Credits Guarantee Department of the United Kingdom temporarily operated the Fixed Rate Export Finance (FREF) program to stimulate exports. The FREF program supported banks and export financing institutions with interest subsidies. Though the program was scheduled for termination on January 30, 2008, the Export Credits Guarantee Department decided instead to reevaluate the program every year, leaving it up for renewal, due to a severe liquidity crisis in the export industry. In 2008 the FREF was extended for another year, and in 2009, extended again to March, 2011. Had allocated budget been exhausted before 2011, it would have been terminated earlier; as that was not the case, it was finally terminated on March 31, 2011.²²⁾ According to the 2007 Public Consultation, while the use of the pure cover program (under which

22) UK Export Finance, <https://www.gov.uk/government/news/ecgd-announces-ending-of-fixed-rate-export-finance>

private financial institutions make loans and public export insurance agencies shoulder the risks) increased from the 2000s onward, the use of the FREF program decreased significantly. In 1991, approximately 90 percent of the total amount of new guarantees was handled via the FREF. That rate dropped to just 10 percent in 2007. The Public Consultation suggested the following as the possible causes: 1) the increased capabilities of private financial institutions to provide fiscal support other than the FREF subsidies (as proven by the rise in demand for the pure cover program); 2) the change in policy objectives in 2000 aimed at reducing FREF costs under which British exporters were given greater access to competitive programs of fiscal support;²³⁾ and 3) the general decrease in the amount of fiscal support provided by the Export Credits Guarantee Department.

The Export Credits Guarantee Department supported 2.272 billion pounds for export financing policy in 2013 and 2014; the export financing policy supported 2.197 billion pounds for buyer²⁴⁾ and supplier²⁵⁾ credit financing, 28 million pounds for supplier credit insurance, and 47 million pounds for the Bond Support Scheme,²⁶⁾ Export Working Capital Scheme²⁷⁾ and the Letter of Credit Guarantee Scheme.²⁸⁾ Currently, the United Kingdom's export financing policy does not include any interest subsidy programs.

Scotland has a program that provides interest subsidies for banks providing student loans.²⁹⁾ In particular, the DEL budget for Higher Education Student Support includes the "Student Loan Interest Subsidies to Banks" as an account. The budget for FY2013 to 2014 was 4.5 million euro, and the budget for FY2014 to 2015 is set at 3 million euro.

23) Mentioned in the 2000 Mission and Status Review of the Export Credits Guarantee Department.

24) The export credit system under which the bank of an exporting country provides to an importer or to a bank of the importing country the fiscal support required for import through direct loan.

25) Credit provided for a supplier, that is, an exporter, by a financial institution in the exporting country.

26) Provision of guarantee for the bank who issued a bond to an exporter.

27) Provision of guarantee for the bank who made a loan for working capital to an exporter.

28) Guarantee for a bank that issued a letter of credit to a British exporter.

29) Scotland budget for FY2014–15.

4 Implications of Other Countries' Cases

What the fiscal support measures in other countries have in common is that they pursue market-oriented policy financing. The United States examines the availability of private-sector capital, the inevitability of fiscal support, and the impact of government fiscal support on the financial market when introducing new loans or credit guarantees. It also evaluates programs every two years, and ensures that fiscal support is only used for the purpose of removing imperfections in the private financial market. It can be said that government funds are intended to suppress the effects of concentration of private finance as much as possible and maximize the utilization of private capital to enhance market efficiency. In addition, the US government favors the credit guarantee over the direct loan because the former makes better use of the private financial system and its resources.

The US government operates a policy financing graduation system for the agriculture sector aimed at reducing policy beneficiaries' chronic dependence on government funding and leveraging private capital. It is operated under a 7 year loan period for direct loan and 15 years for credit guarantee. This also seems to reflect the policy intention to increase the independence of policy beneficiaries and raise private capital(Park et al. 2011, pp. 85–90).³⁰⁾

Like the United States, Japan takes as its main policy principle separation of the public sector from the private one, ensuring that government fiscal support is provided only for those areas absolutely in need.

Such policy financing focuses on ensuring government fiscal support does not harm market efficiency. In other words, the roles of private organizations and government should be clearly defined. Efforts to minimize the role of government and utilize private resources as much as possible should be geared toward realizing economic efficiency. Since policy finance in Korea is highly

30) The policy financing graduation system was introduced by US Congress to induce farmers to use commercial banks after the agricultural financial crisis in the 1980s. This system limits the period during which farmers can take advantage of government direct loans or credit guarantees. However, the recent financial crisis eliminated the time limit or granted additional time (Park et al. 2011, p. 85).

dependent on government loans and there is heavy government intervention in determining loan conditions, it is deemed necessary to improve the system in order to achieve market efficiency.

The policy financing schemes of other countries do not recognize interest subsidy as a major policy method on its own compared to direct loans, credit guarantees, or on-lending; rather, they utilize interest subsidy in combination with other methods. In particular, interest subsidy is used to provide the benefit of low interest rates to policy beneficiaries receiving credit guarantees. Also, it appears that the interest subsidy program is used mainly for projects requiring urgent funds or for temporary projects.

The example of US FFEL, in which the interest subsidy program was converted to the direct loan, indicates that it is not accurate to claim that the interest subsidy program always reduces financing costs; rather in some cases, the direct loan may be more beneficial to government. Therefore, a cautious approach is required when expanding the interest subsidy program into different areas.

V

Reform of the Fiscal Support Programs and Expansion of Interest Subsidy Programs

1 Housing Support Programs

A. Current Status

The National Housing Fund is the main fiscal support program for housing in Korea. Introduced in 1981, the purpose of the National Housing Fund is to assist low-income groups in securing quality housing under the Comprehensive Housing Plan. The fund amounted to 255.2 billion won at its start and continued to increase sharply over the years. Reaching 22.7 trillion won in 2005 and 52.7 trillion won in 2013. The main sources of the National Housing Fund are national housing bonds sold, housing subscription savings, and loans repaid. Among these, housing subscription savings increased nine-fold between 2005 and 2013, and also the amount of loans repaid grew by 2.2 times over the same period. In contrast, contributions from government funds including the Special Account for Government Financing, the Special Account for Agriculture Financing, and the Public Capital Management Fund have generally decreased.

〈Table V-1〉 Sources and Performance of the National Housing Fund

(Unit: hundred million won)

Classification		2005	2006	2007	2008	2009	2010	2011	2012	2013
Source	National housing bonds	84,736	106,213	85,503	84,747	95,658	89,394	99,968	97,370	104,870
	Housing subscription savings	16,248	18,805	20,610	19,753	61,001	83,475	90,834	112,691	147,235
	Special Account for Government Financing / Special Account for Agriculture Financing / Public Capital Management Fund	540	640	540	—	273	173	0	0	0
	Loan repaid	54,699	65,459	55,003	56,680	71,838	82,970	104,571	101,133	123,835
	Transferred Lottery Fund	4,846	4,900	4,610	4,647	5,547	4,719	4,814	4,880	5,381
	Housing Lottery Fund	—	—	—	—	—	—	0	0	0
	Mortgage-backed security	—	—	—	—	—	—	0	0	0
	Interest income	22,012	23,389	33,278	38,343	35,396	40,841	47,244	32,857	32,923
	Initial balance	43,928	44,759	44,506	16,808	7,305	43,579	83,424	104,791	112,559
	Total	227,009	264,165	244,050	220,978	277,018	345,151	430,856	453,722	526,803
Operation	Loan	Rental house construction	29,175	40,366	41,131	26,420	65,852	37,396	38,635	35,887
		Construction of houses for sale	16,185	14,660	8,522	7,367	13,896	22,736	36,880	48,777
		Consumer support	52,316	60,009	48,929	60,101	53,717	50,759	68,395	73,838
		Home improvement	2,482	2,368	1,836	1,140	1,254	15	7,653	14
		Subtotal	100,158	117,403	100,418	95,028	120,775	110,906	151,563	158,516
	Debt repayment		82,092	102,257	126,824	118,645	98,415	150,657	175,421	170,352
	Reserve fund		44,759	44,505	16,808	7,305	43,884	83,588	103,872	124,854
	Total		227,009	264,165	244,050	220,978	277,018	345,151	430,856	453,722

Source: Ministry of Land, Infrastructure and Transport, *Report on the Settlement of Accounts for the National Housing Fund*, each year.

The amount of loans drawing upon the Fund decreased to 9.5 trillion won in 2008 and increased steadily from that point onward, reaching 14.094 trillion won in 2013. The consumer support programs expanded more significantly than the supplier support programs, including construction of rental houses or houses for sale to reach 8.7 trillion won in 2013. As the demand for quality welfare

programs continues to rise, it is expected that demand for housing-related fiscal support for low-income groups will follow suit.

Housing support programs operated by the National Housing Fund can be divided into the supplier support programs, the consumer support programs, and other programs. The supplier support programs consist of public housing sales, contract-based apartment sales, public rentals, and permanent rental programs, and provide fiscal support for corporations that build small and affordable homes for low-income groups. Specifically, the supplier support programs provide fiscal support for LH Corporation and private construction companies at an average loan interest rate of 3.7 percent per annum. In the cases of public housing sales and contract-based apartment sales, full repayment is expected after a maturity period of three years. Long-term loans granted via rental programs are to be repaid over 30 to 40 years.

Since the supplier support program offers loans to local governments, public corporations, and private construction companies, financial institutions must consider repayment capability and the feasibility of loan applicants. Housing construction approval for the public sector accounted for 44.1 percent in 2009, but dropped sharply to 18.1 percent in 2013. Over the same period, housing construction approval for private construction companies jumped from 55.9 percent to 81.9 percent. The growth of private companies was evident even on the public housing market. Public rentals and public housing sales by private construction companies increased dramatically. In 2013 in particular, 27,275 public rental homes were supplied by private construction companies, a nine-fold increase compared to 2009. On the other hand, the loan default rate for the National Housing Fund stood at a mere 0.41 percent in 2013—very low compared to the loan default rate of 7.26 percent in 2002.

The recent state of housing supply indicates an increase in private construction companies' involvement in the public sector. Nevertheless, the default rate of companies financed by the National Housing Fund was moderate. This can be attributed to financial institutions' focus on the repayment capability of loan applicants. Considering most of the Fund's supplier support programs involve providing commissioned loans via private-sector financial institutions as intermediaries, the low default rate may indicate that the loan management practices at commissioned financial institutions may not be as lax as the popular belief would hold.

〈Table V-2〉 Details of Supplier Support Programs

Type	Concerning	Target beneficiaries
Housing sales support	Public housing sales	LH Corporation
	Contract-based apartment sales	Housing construction businesses that build contract-based apartments (public organizations and private companies alike)
	Multiplex/multi-household buildings	Construction companies that build multiplex/multi-household houses (max. 29 units each) upon approval of local governments
Public rental		Construction companies (public organizations and private companies alike)
National rental		Local governments, Korea Land and Housing Corporation, regional corporations
Happy House Projects		Local governments, Korea Land and Housing Corporation, regional corporations

The consumer support programs include loans for workers and low-income groups for *jeonse*-type leases; loans for workers and low-income groups to purchase and own homes; and loans for low-income families to lease homes. The interest rate for the consumer support programs is more advantageous to the beneficiary than that of the supplier support programs, with an average loan interest rate of 3.1 percent for the former, compared to 3.7 percent for the latter. In the case of the home ownership support program, the term of redemption and the term of deferment together reach a maximum of 30 years. Moreover, the total term of redemption for lease loans reaches up to 15 years for low-income families with income less than the minimum cost of living. Other programs support suppliers and consumers through renovations of existing homes or living environments. Housing environment improvement programs, in particular the Improvement Fund for Underprivileged Housing, provide government loans for the low-income groups at a low interest rate of 2 percent. However, the interest rate for the Semi-Governmental Housing Project is set at a significantly higher level of 5 percent.³¹⁾

31) Refer to supplement 2 for detailed loan conditions.

The consumer support programs under the National Housing Fund provide fiscal support for eligible beneficiaries to own or lease homes. To be eligible, candidates must prove their economic and financial difficulty. However, for some programs, there are no set income standards for beneficiaries or the standard is set somewhat above the minimum income level, which serves to defeat the purpose of the National Housing Fund. For example, the Steppingstone Home Ownership Loan Program and the Shared Equity Mortgage Program are open to households with combined annual income of 60 to 70 million won each. According to the Household Survey 2013, the average monthly income of each household in the fourth income decile with two or more members in 2013 was 4.99 million won. This means that 80 percent of total households in Korea meet the income standards for the two programs. To be eligible to receive loan support reserved for low-income families, a household must have an annual income of 50 million won or less and not be a homeowner. According to the Household Survey, any household in the third income decile or below can qualify for this loan program. Therefore, it is difficult to argue that the consumer support programs of the National Housing Fund faithfully serve the intended purpose of providing housing support for the low-income groups.

〈Table V-3〉 Details of Consumer Support Program (2014)

Program	Qualification
Steppingstone Home Ownership Loan Program	Non-homeowner who is the head of a household with total annual household income of 60 million won or less (70 million won for first-time home owner)
Shared Equity Mortgage Program · For-profit type · Guaranteed-principal type	Non-homeowner who is the head of a household with total annual household income of 70 million won or less (for first-time home owners only).
Bankrupt Rental Housing Financing Program	Lessee who applies for a loan after making a successful bid for a bankrupted rental home built based on fiscal support from the rental house construction programs of the National Housing Fund
Housing Stability Fund	Household head with total annual household income of 60 million won or less
Officetel Ownership Fund	Household head with total annual household income of 60 million won or less

〈Table V-3〉 Continue

Program	Qualification
Home Lease Loan Program for Workers and Low-Income Groups	Household head with total annual household income of 50 million won or less
Home Lease Loan Program for Low-Income Groups	Household recommended by local governments, with total annual household income less than the minimum cost of living
Home Lease Support for Teenage Household Heads, Etc.	Housing support for households supported by teenagers, foster homes, families taking care of relatives' children, families that are victims of traffic homes, and young graduates of child shelters and orphanages that do not own homes as of yet and whose average monthly income falls below the monthly average income of urban working households of the previous year.
Home Lease Support for Evictees of Bankrupt Public Rental Housing	<p>Lessees who are forced to vacate bankrupt public rental housing projects and who have signed housing leases after paying a down payment of five percent or more who are:</p> <ol style="list-style-type: none"> ① Minimum 20 years old and non-homeowners (single households excluded in principle); or persons recognized as heads of households by the head of a local government; ② Still living in the rented home or evicted from the rented home after the rental housing project has been approved for re-sale, having signed the home lease and completed the residence relocation transfer procedure prior to the date on which such approval was issued.

The total amount of loans made through the National Housing Fund reached 81.2 trillion won in 2013. Supplier support loans, including financing for rental housing and housing sales, accounted for 64.6 percent of total loans, and consumer support loans accounted for 34.2 percent. The share of supplier loans is greater due to supplier loan-oriented fund management based on the assumption that low interest financing support for housing developers would benefit consumers. However, as recent changes to housing policy have been more geared toward strengthening the autonomy of the industry and providing housing welfare for low-income groups through deregulation rather than through fiscal support, the weight of consumer support is increasing. In the 2013 budget, 6.2 trillion won was allocated for the supplier support programs and 9.6 trillion won for the consumer support programs.

〈Table V-4〉 Loan Status by Year

(Unit: hundred million won)

Program	2007	2008	2009	2010	2011	2012	2013
Total	595,675	634,020	681,612	708,152	737,142	795,288	812,241
○ Rental Housing Funds	291,618	294,573	324,535	343,559	345,924	360,351	383,183
– National rental	147,115	162,606	201,634	213,240	216,909	214,109	219,688
– Public rental	141,564	127,918	118,519	125,707	124,053	141,537	159,101
– Ownership rental	2,939	4,049	4,382	4,612	4,962	4,705	4,355
– Happy House	–	–	–	–	–	–	39
○ Housing Sales Funds	107,971	116,757	125,866	134,289	151,027	175,653	141,543
– Public housing sales	94,160	103,696	114,629	126,406	145,184	167,529	136,993
– Contract-based apartment sales	13,811	13,061	11,237	7,883	5,843	8,124	4,550
○ Consumer loan support	174,423	202,759	213,489	214,711	226,485	248,015	277,684
– Home Ownership for workers and low-income groups	66,207	72,926	67,022	56,258	43,312	31,632	26,632
– First-time home ownership	46,252	42,143	34,692	28,774	27,119	38,174	45,316
– Shared Equity Mortgage	–	–	–	–	–	–	3,782
– Lease for low-income families	17,291	22,322	30,095	37,545	42,881	46,294	65,105
– Lease for Workers and Low-income Groups	43,521	64,521	81,201	91,828	112,985	131,784	136,766
– Lease Deposit Return Fund	142	73	3	1	0	0	0
– Lease for families evicted from homes due to redevelopment	1,010	774	476	305	188	131	83
○ Housing Improvement Program	18,638	17,997	17,146	15,340	13,508	11,217	9,688
– Living Environment Improvement	4,805	4,197	3,560	2,986	2,404	1,281	1,057
– Rural Housing	13,833	13,800	13,586	12,354	11,104	9,936	8,631
○ Other Programs	3,025	1,934	576	253	198	52	143
– Land Development Fund	2,500	1,500	250	0	0	0	0
– Normalization of Bankrupt Businesses	525	434	326	253	198	52	27
– Other	0	0	0	0	0		116

Source: Ministry of Land, Infrastructure and Transport, 2014 National Housing Fund Program Guide.

The majority of the loan programs under the National Housing Fund (13 out of 16) are operated based on the on-lending, with one program based on the direct loan and two programs on the interest subsidy program (as of 2013). Public housing sales and the First Home Ownership Support Fund were switched to interest subsidies in 2013, with the former allocated a budget of 30 billion won and the latter, 25 billion won.³²⁾

〈Table V-5〉 Fiscal Support Types by Program (as of 2013)

Program type	Program	Purpose/beneficiary	Fiscal support type
Supplier support	Housing Sales Support	Public Housing Sales	Interest Subsidy
		Contract-Based Apartment Sales	On-lending
		Multiplex/multi-household homes	On-lending
	Public rental		On-lending
	National rental		On-lending
	Happy House		On-lending
Consumer support	Home Ownership or lease support programs	Home ownership for workers and low-income families	On-lending
		Home lease for workers and low-income families	On-lending
		Home lease for low-income families	On-lending
		Leases on existing homes (for teenage household heads, etc.)	Direct Loan
		Shared Equity Mortgage	On-lending
		First-time Home Ownership Support Fund	Interest Subsidy
Others	Housing Sales Support	Disaster Housing Purchase and Restoration	On-lending
	Housing Environment Improvement		On-lending
	Improvement Fund for Underprivileged Housing		On-lending
	Semi-Governmental Housing Support Project		On-lending

32) The First Home Purchase Support Fund was merged with the worker and low-income group home purchase support fund and the preferential interest rate shelter loan in 2014.

In 2014 the National Housing Fund began to apply the interest subsidy program to public housing sales, the first-time home ownership support program (for the intermediate payments on homes), and to Korea Housing Finance Corporation's programs. In public housing sales, the interest subsidy program allows the bank to finance the construction of LH public housing and be compensated for the difference between the market interest rate and the policy fund loan interest rate from the National Housing Fund. For the first home purchase support fund, the interest subsidy program allows the bank to support non-homeowners in making intermediate payments on their newly purchased homes and be compensated for the difference between the market interest rate and the policy fund loan interest rate from the National Housing Fund.

The remaining programs are operated through commissioned loans, a type of on-lending. Financial institutions are commissioned by the government to carry out the loan business and receive consignment fees in return.³³⁾ Such financial institutions are in charge of repayment ability assessment, loan management, and loan repayment, while the fund is responsible for bad debts. The government raises funds and makes policy decisions on loan conditions.

B. Increasing the Role of Interest Subsidies in the National Housing Fund Programs

The current loan and interest subsidy programs of the National Housing Fund are mostly secured loan, while the remainder are provided as loan guarantees, which require applicants to have credit guarantee certificates issued by Korea Housing Finance Corporation (applicable to both the supplier support and the consumer support programs). As for the types of fiscal support, most National Housing Fund programs are on-lending programs, which require security collaterals or guarantees for loans. This means that even if the current on-lending loans were to be replaced with interest subsidies, loan applicants will unlikely bear any additional financial burdens.

33) According to Article 86, Clause 1 of the "Enforcement Decree of the Housing Act," consignment fees are determined by multiplying the value of business volume by the unit cost of fees.

〈Table V-6〉 National Housing Fund Loan and Interest Subsidy Program Types

Program type	Total	Interest Subsidy	Direct Loan	On-lending
Securitized	10	1	0	9
Loan guarantees	6	0	0	6
Credit	4	1	1	2
Co-guarantees	1	0	0	1
Total	16	2	1	13

The private sector still exercises greater initiative over housing loans than does the public sector in Korea. In other words, the housing finance market is basically led by private companies, with the public sector playing only a secondary role. Korea Housing Finance Corporation and the National Housing Fund account for only 18 percent of total mortgage loans, with the rest financed by commercial banks. This indicates that the private sector is well capable of handling housing loans. Increasing the relative role of the public sector and decreasing that of the public sector in housing-related fiscal support therefore would not likely lead to dramatic changes in the loan evaluation and management processes, as far as the supplier and consumer of such fiscal support are concerned.

We can conclude, therefore, that most loan programs of the National Housing Fund are carried out under the commissioned loan, and that the common worries over that method—i.e. high loan management cost and lax loan management by entrusted financial institutions—are not matters of concern in Korea's case. However, since the current commissioned loan places more financial burden on the government and does not leverage private resources as much as the interest subsidy program would, it fails to maximize market efficiency. In addition, it is difficult to classify the large number of prospective home buyers who are financed by the fund as belonging to the low-income group. The purpose of National Housing Fund loan programs is to promote housing stability by providing fiscal support for low-income groups with low credit ratings. Thus financing from the fund should be strictly limited to such groups. Programs without income standards or with high upper income limits should be converted to interest subsidy first to lower the fundraising burden of the government and actively utilize private capital. In the long run, the income standards for eligibility

for the loan program should be reexamined and the National Housing Fund should strictly focus on providing support for low-income groups. Doing so would not only conform to the original purpose of the fund but would also prevent any financial market distortions caused by government loans.

2 Agriculture, Forestry and Fisheries Industries

A. Current Status of Loan and Interest Subsidy Programs

The loan and interest subsidy programs for agriculture, forestry and fisheries draw upon the General Account, the Special Account for the Structural Improvement of Agricultural and Fishing Villages, and five funds including the Price Stabilization of Agricultural Products Fund, the Farmland Management Fund, the Fishery Development Fund, the FTA Implementation Support Fund, and the Livestock Development Fund. Loans made from these funds reached a total of 28.4 trillion won in 2013, with loans from the Special Account for the Structural Improvement of Agricultural and Fishing Villages making up the largest share in terms of amount.

〈Table V-7〉 Outstanding Loan Balance of Accounts and Funds for Agriculture, Forestry and Fisheries Industries

(Unit: hundred million won)

Account and Fund	2011	2012	2013
General Account	154,013	412	349
Special Account for the Structural Improvement of Agricultural and Fishing Villages	21,217	174,938	178,112
Price Stabilization of Agricultural Products Fund	30,347	32,245	34,182
Farmland Management Fund	32,372	35,676	38,813
Fishery Development Fund	7,397	8,203	8,458
FTA Implementation Support Fund	5,341	7,104	8,907
Livestock Development Fund	13,233	12,931	15,016
Total	263,920	271,509	283,837

Sources: Ministry of Strategy and Finance, "Fund Status in 2013" and "Fund Status in 2014"; Agricultural Policy Insurance and Finance Services, internal statistics.

Loans common for fiscal support programs for agriculture, forestry and fisheries are the direct loan, on-lending or the combination of the two. There are also many programs of interest subsidies. The loan and interest subsidy programs for agriculture, forestry and fisheries are composed of 55 programs and 120 sub-programs. Of these, 14.4 percent are direct loans, 31.1 percent, on-lending loans, and 8.3 percent, combinations of direct and on-lending loans. The interest subsidies comprise 61 programs and accounts for 46.2 percent of the total amount of fiscal support provided. In terms of budget share, combinations of loans make up the largest share at 33.6 percent, while the on-lending loans account for 31 percent, and direct loans, 24.2 percent.

〈Table V-8〉 **Loan and Interest Subsidy Programs for Agriculture, Forestry and Fisheries Industries (2013)**

(Units: number of programs, million won, %)

Fiscal support type	No. of programs	Percentage	Budget	Percentage
Direct loans	19	15.8	1,053,384	24.2
Direct + On-lending loans	11	9.2	1,463,057	33.6
On-lending loans	41	34.2	1,347,336	31.0
Interest subsidies	49	40.8	485,232	11.2
Total	120	100.0	4,349,009	100.0

Note: Counting sub-programs.

In terms of the number of programs, the interest subsidies account for most, but they occupy only 13.3 percent of the budget. This is because for interest subsidies, the amount of loan principals from the budget and only the interest difference is reflected in the budget.

The transition into interest subsidies was done relatively easily in the agriculture area than in other areas due to the presence of specialized financial institutions. The National Agricultural Cooperative Federation, the National Federation of Fisheries Cooperatives, and the National Forestry Cooperatives Federation are in charge of agriculture-related loan programs, with the National Agricultural Cooperative Federation handling the largest share. The interest subsidy programs carried out by the federation include 15 policy fund programs

and seven debt support programs.³⁴⁾

〈Table V-9〉 Interest Subsidy Programs under National Agricultural Cooperative Federation Policy Fund

(Units: million won, %)

Year	Budget	Initial balance	Available budget (A)	Executed amount (B)	Execution rate (B/A*100)	Remaining balance
2008	555,244	53,908	609,152	587,925	96.5	—
2009	622,176	21,227	643,403	388,639	60.4	221,870
2010	563,104	32,894	595,998	406,599	68.2	171,711
2011	368,980	17,688	386,668	372,965	96.5	—
2012	356,555	13,703	370,258	241,038	65.1	27,267

Note: The remaining balance remains due to decreases in the base interest rates of interest subsidies in 2009 and 2010.

The high dependency on the National Agricultural Cooperative Federation has both advantages and disadvantages for interest subsidy programs. Advantages include the accumulation of loan policy know-how especially in the granting of loans to farmers and ease of program management through a unified service window; disadvantages include limits on governmental influence in the federation in terms of setting base interest rates—a key element of interest subsidy programs. The base interest rate is basically set by the order of the Ministry of Agriculture, Food and Rural Affairs. However, since the National Agricultural Cooperative Federation can negotiate with government as a sole supplier, there is controversy surrounding whether the base interest rate is in fact fairly determined by market competition(Lee Jwong-hwan, 2010, pp. 6~7).

34) Policy fund include support for the operating costs of the agriculture and livestock industries, interest discounts on loans for farmhouses damaged by natural disasters, loans for disaster recovery, the RPC Operating Fund, the Comprehensive Agricultural Fund, the Excellent Agricultural Successor Promotion Fund, the Return to Farm and Home Settlement Fund, the Feed Purchase Fund, the Emergency Management Stabilization Fund, the Meat Processing Support Fund, the Livestock Facility Modernization Fund, and the High-tech Greenhouse Construction Support Fund. Debt support programs include the Policy Fund Repayment Deferment Fund, the Mutual Credit Finance Replacement Fund, the Agriculture Management Improvement Fund, the Co-guarantee Elimination Fund, the Agriculture Management Recovery Fund, the Policy Fund Replacement Fund, and incentives for debt repayment.

Loan and interest subsidy programs for agriculture, forestry and fisheries are carried out in the form of credit guarantee or general credit loan according to the credit ratings and securities of loan applicants. In other words, securities-backed loans, guaranteed loans or credit loans are granted according to the credit ratings of loan applicants. Most loan and interest subsidy programs for agriculture, forestry and fisheries require securities. As shown in <Table V-10>, 62 programs out of the total 74 sub-programs require securities. For loan applicants without securities, many programs accept credit guarantees. The loan type applied varies depending on the fund support method. In the case of interest subsidy, the share of programs allowing credit guarantees is higher than loan programs, where 21 programs out of the total 25 grant loans on the basis of credit guarantees, and 19 programs require securities. However, compared to loan programs, the dependence on securities is still high because loan conditions requiring securities or credit guarantees remained the same even while programs once operated under the loan were switched to the interest subsidy program. On the other hand, dependence on securities in direct loan programs is higher than other support methods, and in the case of the on-lending, the number of programs requiring securities or credit guarantees is equal.

Assuming a conversion of loan to interest subsidy, it is useful to classify loan types in accordance with fiscal support methods in order to derive possible implications of that switch on loan applicants. As shown in <Table V-10>, the utilization of securities and credit guarantees for loan and on-lending programs is very high. The table also shows that current beneficiaries of loan programs are unlikely to carry any additional burden even if loan programs are converted to the interest subsidy program.

<Table V-10> Loan and Interest Subsidy Programs for Agriculture, Forestry and Fisheries Industries

Program type	Total	Interest subsidies	Direct loans	On-lending	Direct + on-lending loans
Securitized loans	62 (83.8)	19 (76.0)	12 (80.0)	24 (92.3)	7 (87.5)
Loan guarantees	62 (83.8)	21 (84.0)	9 (60.0)	24 (92.3)	8 (100.0)
Credit	37 (50.0)	17 (68.0)	3 (20.0)	14 (53.8)	3 (37.5)
Co-guarantees	2 (2.7)	1 (4.0)	1 (6.7)	0 (0)	0 (0)
Total	74	25	15	26	8

Notes: 1. A given program may provide two or more types of fiscal support.
2. Debt repayment funds and the like were not counted.
3. Figures in the parentheses represent the respective shares (%) of the given programs in the total number of programs for agriculture, forestry and fisheries.
Source: Ministry of Agriculture, Food and Rural Affairs, *Guidelines on the Application Forms and Management of Fiscal Support Programs*.

Loan and interest subsidy programs for agriculture, forestry and fisheries are much more complicated and compartmentalized compared to other areas. Individual programs include many sub-programs that are again divided according to types of target beneficiaries, and managed under different loan conditions and systems. Moreover, programs and target beneficiary groups tend to overlap. Excessive program compartmentalization and redundancy impede the management efficiency of loan programs and act as obstacles in private financial institutions' autonomous decision-making on loan evaluations and resource distribution. Therefore, it is necessary to streamline the programs and establish a management system based on consistent principles.

Many programs under the agricultural policy funds combine loans and subsidies. Furthermore, since loans associated with subsidies require complex processes, it takes farmers and agricultural businesses a long time until receiving the support they have applied for, with the delay often causing additional losses. As well the association of subsidy and loan has the potential to mislead beneficiaries into believing loans are subsidies. The original purpose of the policy fund was to provide fiscal support for farmers with limited access to funding due to low credit ratings. Clearly the potential of loans being mistaken for subsidies is contrary to the government's original intention for the fund, and is the reason why workers in these industries continue to demand interest rate cuts for loan programs. Moreover because of this association between subsidy and loan, local governments are in charge of loan program management, clouding the role of financial institutions and further impeding efficiency.

Under the prevailing perception of agriculture policy funds as supplementary tools to support agriculture, fiscal support drawing upon these funds has been provided at low interests. This is because the government used government loans to ensure a certain level of income for farming households. The policy interest rate in agriculture, forestry and fisheries is a negative interest rate. This raises the demand for government loans excessively and increases the dependence on

policy funds. According to an economic survey conducted on agricultural workers, those with quick assets that amounted to more than household debt accounted for 67 percent of all farmers in 2003, rising to 88 percent in 2011. This means that even though farmers can reduce debts by disposing assets, they rather increase debts and assets at the same time. Given the situation, the government attempted to stabilize and increase income for farmers through government loans. However, since government loans only increase farmer income and do not act as income subsidies, it is more effective to select direct subsidy rather than government loan to increase farmer income.

The Credit Guarantee Fund for Farmers and Fishermen is a major source of fund for policy financing for agriculture. The Credit Guarantee Fund for Farmers and Fishermen was introduced in 1972 to provide fiscal support for farmers and fishermen with insufficient securities. Loans outstanding for this fund reached 100.7686 trillion won in 2013(4.3205 trillion won of new guarantees in 2013). The management agency for the fund issues guarantee certificates to financial institutions. In the case of loans of 30 million won or more, the fund applies a partial guarantee policy and compensates only 85 percent of the total loss. Between the commissioned guarantees and the direct guarantees made possible by the fund, the share of the former is overwhelmingly larger. Commissioned guarantee by the National Agricultural Cooperative Federation account for 93 percent and 91 percent of the number and the amount of all guarantees provided by the organization, respectively(Park et al., 2011, p. 24). The commissioned guarantee is pointed out as a problem of programs under the Credit Guarantee Fund for Farmers and Fishermen because the same institution is responsible for loan and guarantee evaluation, leading to certificate over-issuance which causes non-performing loans and fund loss.

Though the agriculture fund has been in existence for some time, it has yet to adopt advanced borrower screening and loan management techniques. Park et al.(2011) pointed out that because the Comprehensive Agricultural Fund and the Credit Guarantee Fund for Farmers and Fishermen focus on the repayment capability of loan applicants rather than on the feasibility of their proposed enterprises, they have failed to make effective investments in prospective agricultural and marine businesses.

B. Plans to Improve Agriculture, Forestry, and Fisheries Policy Fund System

In order to lower the dependency of farmers and fishermen on policy funds, it is necessary to examine lowering policy rates with caution and introduce the policy fund graduation system. As Korea's government loan system does not have any loan period restrictions unlike in foreign countries, farmers' willingness to enhance competitiveness through self-effort can weaken. In addition, excessively low interest rates can remove incentives to make early repayments of loans, thereby deepening farmer/fishermen dependency on government loans.

It is also necessary to simplify the system through consolidation of loan programs. Since programs with similar purposes and policy beneficiaries are distributed across various funds and accounts, farmers face difficulties in accessing policy funds and managing funds efficiently. Moreover existing programs and new programs under consideration should be examined for their viability and for whether they adhere to interest subsidy and loan regulations. Further guidelines should be developed to determine whether policy fund support has the potential to disturb the financial market, and whether government fiscal support is necessary or if it can be replaced with private capital.

Expansion of the interest subsidy program is needed in order to increase utilization of private capital and promote financial efficiency. When converting government loans to interest subsidy, it would be more effective to streamline and simplify complex loan programs at the same time. In addition, when converting to interest subsidy, in the case of differential support based on income level or farming scale, it is necessary to reduce side effects due to changes in fiscal support method (to interest subsidy) by converting loan programs geared toward large-scale corporate farms first.

With respect to interest subsidy management, the amount of government expense depends on the difference between policy rate and the market rate. Upon the negotiation between government and banks, how high the market rate is evaluated is a key factor. Currently, agriculture-related loans are handled by commercial banks, but due to the nature of such loans, the National Agricultural Cooperative Federation provides policy funds exclusively. This limits the principle of competition in setting the base interest rate for interest subsidy.

Thus when expanding the interest subsidy program, it is necessary to introduce a new system for setting the base interest rate in which the participation of commercial banks is encouraged.

Recently, the Ministry of Agriculture, Food and Rural Affairs recognized the need to expand interest subsidies and moved to switch short-term direct loans to interest subsidies in its Basic Regulations on the Management of Fiscal Programs in 2014.³⁵⁾ However, as of 2013 there were only three loan programs (excluding fund programs) providing short-term loans for five years or less, i.e., the Overseas Forestry Investment Support Program, the High-quality Rice Distribution Promotion Program, and the General Animal Medicine Industry Support Program. Therefore, for more aggressive expansion of the interest subsidy program, the regulations should allow for the application of interest subsidies to the fund programs as well.

〈Table V-11〉 **Agriculture, Forestry, and Fisheries Industries Account and Fund Management**

Account/Fund	Function		Responsible Organization
Special Account for the Structural Improvement of Agricultural and Fishing Villages	General	Budget, revenue, and expenditure	Ministry of Agriculture, Food and Rural Affairs, Rural Development Administration, Korea Forestry Service
	Commissioned Management	Loan operation and management, loan operation accounting and management	Agricultural Policy Insurance and Finance Services
	Loan		National Agricultural Cooperative Federation, National Federation of Fisheries Cooperatives, National Forestry Cooperatives Federation, Member Association, Bank

35) According to the Agriculture, Food and Rural Affairs Financial Program Management Basic Regulations Article 34, Clause 1, the interest subsidy program should be applied preferentially to loan programs with loan periods of five years or less excluding fund programs. Also, loan programs with loan periods of six years or more should be carried out by the existing fiscal loan.

<Table V-11> Continue

Account/Fund	Function		Responsible Organization
Price Stabilization of Agricultural Product Fund	General	Fund operation planning, expense limit assignment, supervision of delegated/commissioned organizations	Ministry of Agriculture, Food and Rural Affairs (Marketing & Consumer Policy Bureau)
	Delegated Management	Receipts and expenses of fund related to seed supply and demand management business	Korea Seed & Variety Service
	Commissioned Management	Receipts and expenses of fund excluding seed supply and demand management business; fund management; settlement of accounts	Korea Agro-Fisheries & Food Trade Corporation
	Loan		Korea Agro-Fisheries & Food Trade Corporation, National Agricultural Cooperative Federation
FTA Implementation Support Fund	General	Fund operation planning, expense limit assignment, instruction and supervision of commissioned organizations	Ministry of Agriculture, Food and Rural Affairs (Agricultural Policy Division)
	Commissioned Management	Receipts and expenses of fund, fund management, settlement of accounts	Korea Agro-Fisheries & Food Trade Corporation
	Loan		Korea Rural Community Corporation, National Agricultural Cooperative Federation
Farmland Management Fund	General	Fund operation planning	Ministry of Agriculture, Food and Rural Affairs (Farmland Policy Division)
	Commissioned Management	Receipts and expenses of fund, fund management	Korea Rural Community Corporation
	Loan		Korea Rural Community Corporation
Livestock Development Fund	General	Fund operation planning, expense limit assignment, supervision of commissioned organizations	Ministry of Agriculture, Food and Rural Affairs (Livestock Policy Bureau)
	Commissioned Management	Receipts and expenses of fund; acquisition, management and disposal of fund properties; creation and management of subsidies to fund loss account; management of surplus fund; settlement of accounts	National Agricultural Cooperative Federation (Secretariat for Livestock Industry Development Fund)

〈Table V-11〉 Continue

Account/Fund	Function		Responsible Organization
Livestock Development Fund	Loan		National Agricultural Cooperative Federation (Korea Federation of Livestock Cooperatives)
Fishery Development Fund	General	Fund operation planning, program execution guideline announcement, budget allocation, settlement of accounts	Ministry of Oceans and Fisheries (Fisheries Policy Division)
	Commissioned Management	Fund management planning, management of income and expense, management of surplus fund, preparation of settlement of accounts for fund report	National Federation of Fisheries Cooperatives (Secretariat for Fishing Industry Development Fund)
	Loan		National Federation of Fisheries Cooperatives, Korea Agro-Fisheries & Food Trade Corporation

Finally, in reviewing the conversion to interest subsidy the functions and roles of accounts and fund management and operating principles should all be thoroughly examined. Organizations affected by the expansion of interest subsidy should concentrate on indigenous subsidy programs and reorganize overlapped functions. In addition, loan programs of the fund should be transferred to the Special Accounts for the Structural Improvement of Agricultural and Fishing Villages so that it may function as the only window for interest subsidy programs in order to unify program management and operation.

3 Future of Interest Subsidies in Fiscal Support

A. Financial Environment

Financial institutions' interest rates continue to decrease. According to the Bank of Korea, the interest rate for new loans in 2010 was 5.51 percent and decreased to 4.64 percent in 2013. Interest rates decreased for both corporate

and household loans and mortgage rates decreased from 5 percent to 3.94 percent. Since government loans provide fiscal support with interest rates lower than market interest rates, the maintenance of low interest rates means a reduction of the benefits garnered from government loans. It also means that there is less possibility of interest rate disadvantage to the policy beneficiary when switching to interest subsidy.

It is necessary to consider the lending behavior of banks with respect to increasing the amount of available capital, another expected benefit of interest subsidies. Even if the current government loan programs were to be replaced with interest subsidies, the amounts of fund available to the existing beneficiaries would not decrease much. The majority of government loan programs in place today already require loan applicants to put up security collaterals or secure credit guarantees. These applicants therefore would bear little additional burden in receiving interest subsidies, which would change the source of capital only rather than its absolute amount.

The last consideration is whether the policy beneficiary is likely to be treated unfavorably in terms of loan conditions including interest rate and loan terms. These would not pose problems because the government would determine the policy interest rates and loan terms applicable to the borrower even for interest subsidy programs.

B. Interest Subsidy Conversion Principle

The interest subsidy program requires expertise and know-how on the part of financial institutions in determining whether to grant loans. Since there is already a financial institution with the necessary expertise in agriculture, forestry and fisheries, relevant loan programs can be converted to interest subsidy without much trouble. However, this would increase dependency on the National Agricultural Cooperative Federation and the National Federation of Fisheries Cooperatives. Therefore, it is necessary to set a proper market interest rate by expanding windows to commercial banks and encouraging interbank competition.

It is necessary to consider conversion to interest subsidy first for simple fund support programs and programs with clear definitions of the beneficiaries. For example, programs in which loan conditions are determined by an

individual's identity (i.e. soldiers, private school teachers, and those for people with disabilities), and programs in which loan qualification includes individual income and credit ratings, are clearly defined by government and do not require follow-up management, thus they can be preferentially converted to interest subsidy first.

A concern when converting to interest subsidy is the potential for the policy beneficiary to be disqualified or receive a higher interest rate through unfavorable loan assessment. To supplement this, it is necessary to reduce the risk for financial institutions by providing credit guarantees where the interest subsidy program is applied.

To increase the efficiency of government loans, it is necessary to reorganize the similar and duplicated programs found across different accounts and funds. Since loan and interest subsidy programs with similar characteristics decrease the effectiveness of all programs, overlapping should be avoided to improve effectiveness.

There have been some cases wherein even though a program was classified as interest subsidy in the budget, it was in reality an interest supplement program. These are programs that supplement interest payment for the same loan programs through the General Account or the Special Accounts for the Structural Improvement of Agricultural and Fishing Villages. This happens because the definition of interest subsidy is misunderstood by program managers. Therefore, before discussing the development of the government loan system and the expansion of interest subsidy, those in charge need to expand their own knowledge and the recognition of their departments regarding government loans.

The conversion of loan programs to the interest subsidy program will reduce the functions of departments in charge of existing loan programs. However, it is necessary to prepare compensation systems so that the departments that provide consulting and monitoring for borrowers in addition to making loans can continue to provide their services.

C. Future Considerations for Interest Subsidy

The current operation of interest subsidy programs is directly related to the scale of financial expenditure. However, regulations related to base interest rates

for interest subsidy are established differently for different areas. Therefore, it is necessary to unify different base interest rate regulations so that they can be applied regardless of area. In addition, the principle of competition should be introduced in the process of base interest rate setting. Effective base interest rate setting through interbank competition will contribute to financial efficiency.

Current loan and interest subsidy programs use both fixed interest rates and floating interest rates without consistent rules across programs. They should expand the application of floating interest rates, and with that expansion positively consider another way to support beneficiaries, in which the difference between the policy rate and the market rate is fixed. With this method, the planning of fiscal expenditure can be easily done regardless of interest rate fluctuation thus enabling greater budget stability.

VI

Conclusion

The purpose of government credit policy is to help low-income groups and foster specific industries. However, with the ample capital available from private financial institutions and the decline of interest rates some are demanding that the government change its fiscal support methods in order to maximize market efficiency. In addition, since financial efficiency has become more important than ever in light of the increasing demand for welfare, the need to find more efficient policy fund support methods has emerged.

According to this study's analysis of government revenue and expenditure for the loan and the interest subsidy program, the interest subsidy program was revealed as being more beneficial to the government, while the loan proved more advantageous to financial institutions. However, the expansion of interest subsidy can increase the utilization of surplus funds accumulated in private financial institutions, and foster human resources and system development by facilitating business expansion. Development in these non-monetary aspects can be considered a positive effect of the expansion of the interest subsidy program. Moreover, the difference between the loan and the interest subsidy program is hardly perceptible for beneficiaries because loan conditions including loan terms and interest rates are determined by government, and programs operated through the on-lending (excluding direct loans) are operated by financial institutions so that there is hardly any change in administration.

Despite the positive effects of interest subsidy, many government loan programs are still operated as direct loans or on lending programs. Even current operations of interest subsidy programs are limited to simple fund support and

do not leverage the human resources and systems of private financial institutions. Therefore, it can be said that the limited conversion to interest subsidy has not improved efficiency as much as it could.

The main problem of the government loan system can be found in the lack of consistent principles and regulations carried out across departments in relation to government loan programs. In other words, no department in charge of overall government loan programs existed to lead the conversion to interest subsidy in accordance with regulations and in consideration of market principles.

In addition, it seems that political economy factors surrounding fund and accounting act as barriers to the conversion to interest subsidy. In the process of such a conversion accounting and fund management systems must be reorganized, which may lead to conflicts among departments. In addition, budget cuts can reduce the roles of departments in charge of fund management. All of these serve as obstacles for the conversion to interest subsidy.

In order to improve policy finance to achieve greater efficiency of the overall economy, the interest subsidy program should be more market oriented and the necessity of government loan programs should be reviewed in terms of their role as supplements for market failure so that the government can prepare guidelines for carrying out essential programs only. Efforts to review the fundamentals of the government loan system and utilize private financials including interest subsidy and credit guarantee would activate the private economy and increase the efficiency of the entire economy in the long run.

As the interest subsidy program is more market oriented and economically efficient, and can broaden the business activities of private financial institutions and in the process advance the financial market, it should be reviewed positively.

The decline of fund availability for policy beneficiaries, pointed out as a weakness of the interest subsidy program, is not of great concern at the moment. Since the beneficiaries of existing government loans are already using securities or credit guarantees, there should not be any additional burden placed on them with the conversion to interest subsidy. As well, since the policy interest rate is determined by the government, policy beneficiaries are not likely to be treated unfavorably in terms of interest rate.

Conversion to interest subsidy should be started with easier programs, such as simple fund support programs with clear definitions of loan qualifications.

In addition, in the case of agriculture, forestry and fisheries where interest subsidy programs have been carried out for a long time and there is a specialized financial institution in place, additional conversion to interest subsidy seems possible.

In the case of programs that provide fiscal support only through credit loans, it is necessary to provide credit guarantees as supplements to low credit ratings when converting to interest subsidy. To maximize the improvement effectiveness of the government loan system, overlapped programs should be consolidated in the process of the switch to the interest subsidy program.

Furthermore it is necessary to apply market principles for setting the base interest rate through the participation of commercial banks and interbank competition. Another requirement is to expand the floating interest rate method over the fixed interest rate method because the former is more advantageous to beneficiaries with the current trend of interest rate decline. Introduction of the fixed quadratic rate method for budget stability is another task that should be highly considered since this method can improve financial efficiency by reducing unused amounts caused by unexpected interest rate fluctuations.

A practical obstacle to interest subsidy expansion is resistance by accounting and fund management heads in charge of loan programs, since the conversion naturally reduces their functions and related budgets. In the case of a fund with many loan repayment programs, the conversion to interest subsidy may prevent the normal course of these programs due to income reduction. Therefore, fund support plans should be prepared in advance of the conversion so that existing programs can fulfill their original purposes.

The demand for government loans is much less than before. In the past, government loans provided support to the underprivileged with credit restrictions and indirect support through interest rate difference. The current trend of low interest rates therefore indicates that there is a decrease in benefits from government loans due to the narrowing difference between policy interest rates and market interest rates. As well, it seems the income assistance effect of government loans is lower in comparison with direct assistance. Given this environment it is therefore necessary to review whether to maintain government loans, and establish broad principles to preferentially utilize private capital if possible. Most importantly, the respective roles and responsibilities of the public and private sectors should be defined with greater clarity so as to minimize

the government's intervention in the market and maximize the efficiency of resources distribution throughout the national economy.

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