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A Study on Introducing Program Budgeting to Public Institutions

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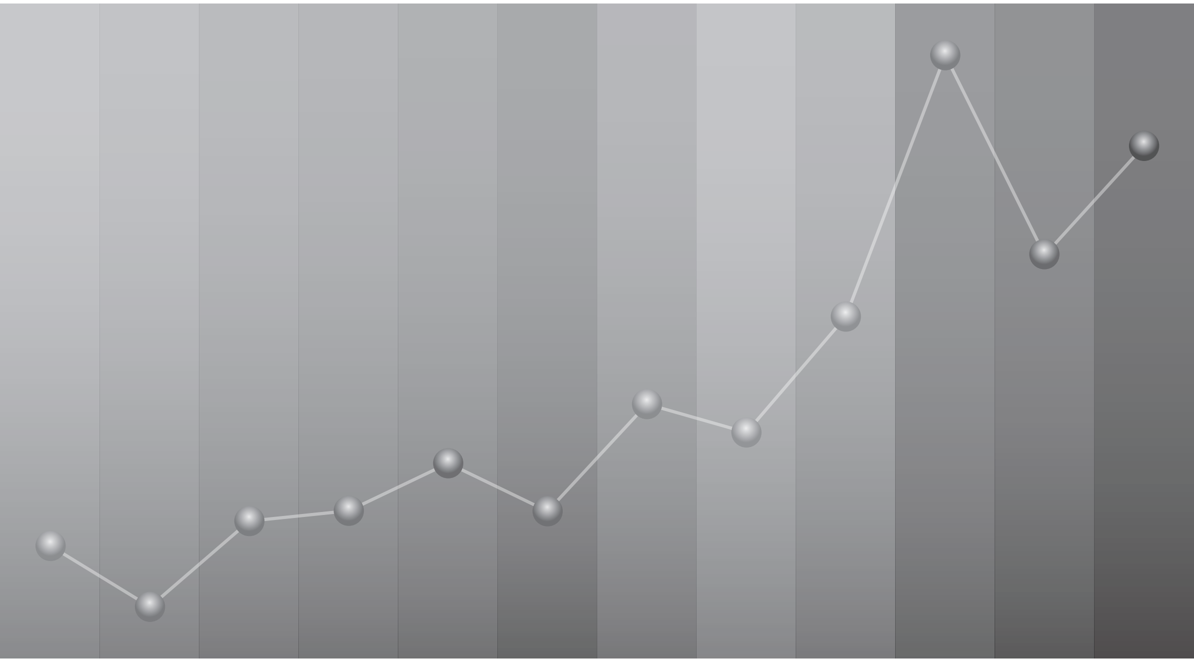

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Introduction

Public institutions hold both an increasing share and importance in the economy of South Korea. According to data from the Ministry of Strategy and Finance, in fiscal year 2011 the assets of public institutions reached 698.9 trillion won and debts touched 463.5 trillion won. The majority of public institutions are financed by the government, with total financial support for fiscal year 2011 reaching as high as 109.9 trillion won—among which directly provided funds via contributions, subsidies, etc. totaled 35.3 trillion won. The size of liabilities maintained by public institutions and their rate of increase have both recently surged, burdening public finance. Amid such conditions, interest in the financial management of public institutions has expanded. Institutions' closing accounts have been audited and examined, but the same degree of attention has not been directed at their budgets. In particular, their budget bills are written by expense item and calculation details such as unit cost and quantities are often not presented, making it difficult to fully oversee the details of budgets and the results of budget expenditure. Drafting a budget by expense item through line-item budgeting is indeed an effective technique for public institutions' budget management. However, this method hampers clear understanding on the part of the central government. Therefore, the government is considering the introduction to public institutions of program budgeting as a means to enhance these institutions' budget management and heighten budget transparency.

Unlike in the existing line-item budgeting system, under program budgeting a budget is prepared on a program basis. In South Korea, program budgeting was introduced under the name of "performance-based budgeting" or "planning programming budgeting." More specifically, it was introduced in 2003 with the title "performance-based budgeting" to central ministries and their affiliated agencies, underwent a pilot project in 2005, and since 2008 has been expanded to 50 local governments including metropolitan governments.

Although preliminary studies are necessary to examine the applicability of program budgeting to public institutions, none have yet been undertaken in earnest. Meanwhile, some public institutions have taken the initiative to introduce it independently. Therefore, to diffuse it among all public institutions, there is first a need to carefully examine the current status of budget management by public institutions and review the characteristics of their responsibilities and businesses. In addition, the level and utilization of program budgeting will have a significant impact on both its introduction cost and its effects on public institutions. Therefore, the cost and eventually the effects of its introduction should be examined by taking into account the unique characteristics of public institutions.

This paper attempts to shed light on the issues surrounding budgeting systems in public institutions and the status of the introduction of program budgeting by collecting and analyzing relevant data. It also strives to examine the issues and implications related to introducing and operating program budgeting by analyzing the South Korean government and those public institutions that have already adopted it. Ultimately, based on the analysis results, this paper will suggest directions for introducing program budgeting to all public institutions.

II

Program Budgeting

1 Changes in Budgeting

A budget is a financial plan regarding an institution's revenues and expenditures over a set period. Stated in monetary terms, it is a design for both how much money an institution requires in order to carry out its work and how it foresees raising these funds (Ha Yeon-seob, 2010). A budget is more than simply a record of revenue and expenditure since it states in figures an institution's objectives and demands for financial resources in order to fulfill its objectives. In other words, a budget is a comprehensive plan that includes a prediction of when and how much funding will be needed to achieve given aims. In this sense, a budget diverges from accounting in that the latter is retrospective: Unlike accounting, a budget is a record of expected revenues and expenditures. An institution requires a budget to properly carry out its work and its performance results can vary significantly depending on its budget management and allocation. Historically, governments around the world have refined their budget management systems and adjusted their operations in order to provide improved services. Such an effort to upgrade budget classification and management is widely known as budget reform. Budget reform is an effort to enhance the rationality of budget management. Representative budget reforms since the 1920s in South Korea include line-item budgeting, followed by performance-based budgeting, planning programming budgeting, and, most recently, results-oriented budgeting.

2 Definition and Elements of Program Budgeting

A. Definition of Program Budgeting

Program budgeting is operated at various levels and in diverse forms. However, as seen in the introduction, in terms of the characteristics and evolution of budgeting, program budgeting can be defined as follows: It is a budgeting technique that organizes the process and system of budget planning, preparation, allocation and execution on the basis of an institution's programs, and directly links the organized process and system to performance evaluation. That is to say, it is a performance-based form of budgeting under which a budget is classified on a program-by-program basis. Program budgeting features a system directly linking a program and an activity for which budget is spent to performance units (e.g. purpose, target or expected result, and performance of an undertaking), allowing easy comparison and assessment of results or performance against the original target. Under program budgeting, it is possible to assess performance by organization / task, and thus reflect the assessment results in the next round of budgeting and provide more objective and diverse information on performance to consumers of information.

In program budgeting, a program refers to a systematic cluster of activity units that ministries and offices carry out in order to achieve a specified policy goal. An IMF working paper (2003) describes a program as "a group of activities or projects spending resources, which are consolidated in a meaningful and proper manner and controlled under a single person in charge, thereby contributing to the purpose of a specific policy." In program budgeting, a program is a basic unit of strategic resource allocation and a core concept connected with the performance evaluation unit. A program has a hierarchical structure. That is, a program is composed of multiple activities and each activity consists of several tasks. A task refers to an undertaking conducted in order to achieve the purpose of a program. Thus, program budgeting can be characterized by a hierarchical classification that consists of programs, activities, and tasks.

<Table II-1> Structure of Program Budgeting

Program A							
Activity A-1			Activity A-2				Activity A-3
Task A-1-1	Task A-1-2	Task A-1-3	Task A-2-1	Task A-2-2	Task A-2-3	Task A-2-4	Task A-3-1

3 Expected Benefits and Issues of Program Budgeting

A. Expected Benefits of Program Budgeting

First, budget transparency is expected to increase with the introduction of program budgeting. In program budgeting, an institution's budget is structured based on programs, which are then organized in a hierarchical manner into activities and tasks that can be accordingly assigned to divisions and organizations. This facilitates the systematic oversight of which organization is conducting what program. Furthermore, program budgeting places program units—linked to policy function—at the center of budget management, allowing a clear understanding of performance results as well as of what national policy is being implemented by what organization and under what programs. Second, program budgeting helps to reduce budgets. The size of a budget and its priority are determined on the basis of performance goals, so budget waste arising from inefficient operations can be significantly reduced. Third, resources can be allocated more efficiently. The expenses dedicated to a program can be accurately calculated by ascertaining not only the direct expenses of a program but also the indirect expenses (e.g. personnel expenses and basic expenses) that have been allocated in a lump sum according to ministries / bureaus. Based on this more accurate calculation, the priorities of budget allocation can be more efficiently determined. Fourth, autonomy and responsibility for business operation is increased. Rather than controlled rigidly, an institution carrying out a program is permitted greater autonomy in determining the composition of inputs and methods of conducting a program. If an institution conducting a program enjoys greater autonomy, technical efficiency will be improved. In addition, the performance of respective programs can be evaluated more objectively, so responsibility for budget operation will be increased as well.

B. Issues Regarding Program Budgeting

One of the issues concerning the introduction of program budgeting is the difficulty in reorganizing budget structures—that is, reflecting the structure of program budgeting within a budget system (itemized structure, etc.). Grafting a program and its activities onto a budget system is about making a sophisticated plan for budget expenditures based on particular policy objectives, programs, and activities. To define and adjust budget activities in a refined manner based on policy objectives is difficult and highly likely to give rise to technical issues. For this reason, a program and its activities must be clearly defined, and the proper method to link each program's budget allocation to policy objectives should be provided through explicit guidelines. Regarding such guidelines, first, a hierarchical order for a program structure should be developed in a logically appropriate manner based on exclusivity, inclusivity, and causality. Second, standards for classifying a program's hierarchical order should be established. For example, program area (target and region) and program method can be used as such standards and a separate label can be designated for accounting classification.

The second issue related to program budgeting is the establishment of a relationship between program structure and organizational structure. How to determine program and organizational boundaries is an important issue because the goal and scope of a program may span several organizations. A program and an organization are not commonly in chime with each other as budget allocation units: In terms of government organization, for example, several activities that share similar functions fall under the same organization, regardless of their various objectives, while several activities having the same objectives may be included in the same program, regardless of the organization to which they belong. There are two solutions for addressing this problem: The first is to restructure the governmental organization according to the scope of a program, and the second is to adjust the scope of a program to fit the government's organization. Currently, the scope of a program is not allowed to extend beyond the boundaries of a governmental ministry, meaning that a program's budget cannot be provided by multiple ministries. If the budget for a program is derived from several ministries, there may be a risk of conflict among these ministries and it may become difficult to clarify responsibility for the results of the expenditure. In other words, specifying where responsibility lies will be difficult if expenditures are made on a program basis rather than on a ministry basis. To address this issue, the logical appropriateness of organizational structure has to be confirmed by taking into account economy of scale, professionalism, and job independence.

The third issue concerning program budgeting is the calculation of the full cost of a program. The full cost of a program can be defined as a "monetary expression of all resources that are inputted to implement a program." Specifically, the full cost is the sum of (a) the cost of consumed resources that directly and indirectly contribute to a product and (b) the cost of traceable support services provided by other responsible sectors within a reporting entity or by another reporting entity. Major issues concerning the calculation of the full cost of a program include (1) whether or not to take into account accrual-basis cost and (2) whether or not to keep direct and indirect costs separate. Regarding the first issue, a decision should be made about including a cost that does not involve cash disbursement. For example, depreciation expenses do not require cash disbursement, but a determination should be made regarding how to recognize the expense in terms of an accrual basis. If a cost flow and a cash flow do not coincide, a cost estimate on the basis of cash-basis accounting is highly likely to underestimate the cost, which may in turn lead to unreasonable decision making. Regarding the second issue, costs are divided in a program cost estimate into direct and indirect costs according to whether or not a cost can be traced. At this point, direct costs must be imposed on a concerned program and indirect costs are allocated based on reasonable allocation standards. Since the reasonable allocation of indirect costs lies at the core of program cost estimation, if indirect costs are allocated based on an inaccurate distribution ratio, there may be a risk of certain resources consumed for program activities going undetected.

III

Current Status and Issues Concerning Budgeting Systems of Public Institutions

1 Public Institutions' Budgeting and Relevant Laws

Basic rules covering financial management in state-owned corporations and quasi-governmental institutions are prescribed in Section 4 of the Budget and Accounting of the Act on the Management of Public Institutions. It stipulates that, in conformity to the government's fiscal year, the fiscal year for public institutions should begin on January 1 and end on December 31 every year.[1] It also requires that the accounting of state-owned corporations and quasi-governmental institutions be based on accruals to clearly reflect business performance (profits and costs) and increases, decreases, and changes in assets (assets and debts).[2] As detailed accounting standards, it demands that public institutions follow "State-Owned Corporation and Quasi-Governmental Institution Accounting Standards," the ordinance of the Ministry of Strategy and Finance. Specifically, an institution should apply these accounting standards to its budget for the year following its designation as a public institution, and apply them to the closing account for the year of the designation.

In addition, the law stipulates that the Minister of Strategy and

1) Article 38 of the Act on the Management of Public Institutions
2) Article 39 of the Act on the Management of Public Institutions

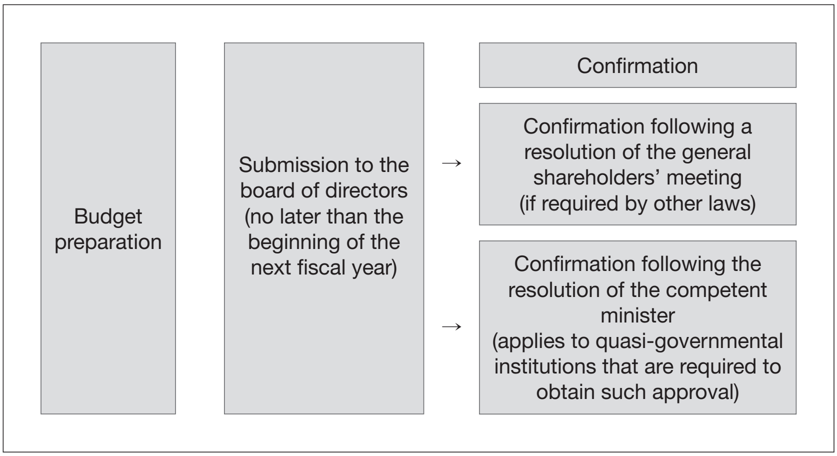
Finance should draw up guidelines for budgeting and capital management at state-owned corporations and quasi-governmental institutions through the deliberation and resolution of the Public Institution Management Committee and provide these guidelines to the heads of state-owned corporations, quasi-governmental institutions, and competent ministries.[3)] Accordingly, the Ministry of Strategy and Finance determines budget preparation guidelines and budget spending guidelines on an annual basis in order to provide public institutions with official direction on both budget preparation and fund management and spending.

Meanwhile, the head of a state-owned corporation or a quasi-governmental institution is obliged to prepare a budget bill for the coming fiscal year reflecting management goals and guidelines and then submit it to its board of directors no later than the beginning of the next fiscal year (Article 40 of the Act on the Management of Public Institutions). At this time, the budget bill has to be categorized into general provisions, an estimated income statement, an estimated balance sheet, and a financial plan.

The budget bill is then adopted by resolution of the board of directors (Article 40 of the Act on the Management of Public Institutions). However, if further laws require additional processes, such as the resolution of a general shareholders' meeting or fund management deliberation council, the bill must pass through an additional resolution process in order to be confirmed. Or, if the budget bill of a quasi-governmental institution requires the approval of the related minister, it needs to acquire the approval of that minister after it is passed by the board of directors.

3) Article 50 of the Act on the Management of Public Institutions

[Figure III-1] State-Owned Corporation and Quasi-Governmental Institution Budget Confirmation Process

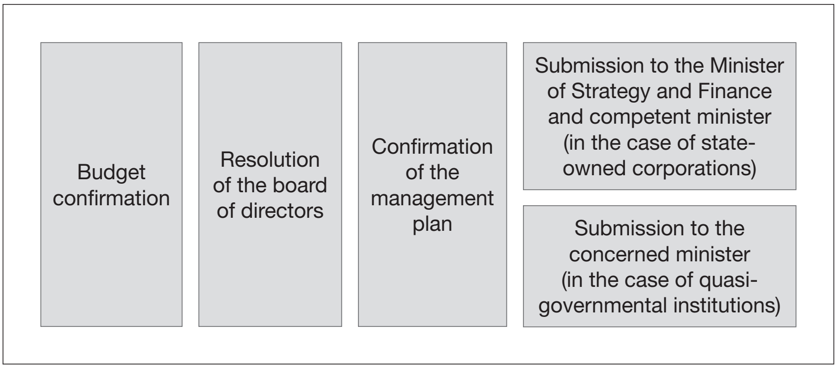


Source: Act on the Management of Public Institutions

If a budget is confirmed, a state-owned corporation or a quasi-governmental institution must confirm its management plan without delay via a resolution of the board of directors. Next, a state-owned corporation must submit the management plan to the Minister of Strategy and Finance and the concerned minster within two months of the confirmation of the budget, whereas a quasi-governmental institution must submit its plan to the concerned minster within the same time frame.[4] This same process is applied when a budget is revised.

4) Article 42 of the Act on the Management of Public Institutions

[Figure III-2] Confirmation Process of the Management of Plans of State-Owned Corporations and Quasi-Governmental Institutions



Note: Within two months after budget is confirmed.
Source: Act on the Management of Public Institutions

Even after a budget is confirmed, the head of a state-owned corporation or a quasi-governmental institution may revise it in response to a change in management goals or for other unavoidable reasons. In this case, the same budget confirmation process is applied once again (Article of the Act on the Management of Public Institutions). In addition, a budget that is confirmed or revised must be submitted without delay to the heads of the Ministry of Strategy and Finance, the competent ministry, and the Board of Audit and Inspection. If a budget is not confirmed by the beginning of the next fiscal year, a provisional budget may be drawn up (Article 41 of the Act on the Management of Public Institutions). Specifically, if a budget has not been confirmed by the time a new fiscal year begins due to a natural disaster or for other unavoidable reasons, state-owned corporations or quasi-governmental institutions may prepare a budget (a so-called quasi-budget) based on the budget from the previous fiscal year. However, this quasi-budget loses effect the moment the original budget is confirmed. At this time, the amount already dispersed out of the quasi-budget is considered spent under the budget for the corresponding fiscal year.

Some budget details of every public institution are made public in the form of a summarized report published via ALIO, the public information system regarding public institutions' management status operated by the Ministry of Strategy and Finance. Each institution's compliance with budget preparation guidelines is reflected and scored at the time of a management performance evaluation. In an evaluation of management performance, if an institution is found to have violated budget preparation and budget spending guidelines, resulting in poor management, the institution may be subject to deliberation and resolution by the Public Institution Management Committee and be requested to take appropriate measures (e.g. personnel actions or budgetary measures) in order to secure its management responsibility and necessary improvements.

The Ministry of Strategy and Finance draws up annual budget preparation and spending guidelines to provide directions for budgeting and fund management to state-owned corporations and quasi-governmental institutions. The budgeting preparation guidelines are composed of three areas: budget preparation directions, guidelines for budget preparation by major items, and administrative matters. In particular, the budget preparation directions suggest policy directions on which public institutions should to focus when preparing their budgets. The 2012 Budget Preparation Directions, for example, suggest completing public institution advancement plans and reinforcing efforts to improve fiscal soundness (i.e. improving management efficiency, establishing mid- and long-term fiscal management plans, etc.).

2 Characteristics and Issues Regarding Budgeting Systems of Public Institutions

A. Characteristics of Budgeting Systems in Public Institutions

The first characteristic of public institutions' budgeting for discussion is that they have been afforded greater autonomy regarding budgets. Until the early 1960s, the operation and control of a public institution was entirely reliant upon its establishment law and the discretion of the competent minister. The first law on public institutions, the Government-Invested Institution Budget and Accounting Act, was introduced in

1962 to unify and centralize operation policies and strictly regulate the budgets of government-invested institutions. For instance, the budget bill of a government-invested institution was first assessed by its competent ministry and the Ministry of Strategy and Finance and then finally submitted for approval to a cabinet meeting to the president. However, the Framework Act on the Management of Government-Invested Institutions enacted in 1983 considerably eased the existing regulations on budgets and allowed the budget of an institution to be confirmed simply through the resolution of its board of directors.

The second notable characteristic of public institution budgeting is that *ex post facto* responsibility is emphasized in budget management. Budget management reform via the enactment and revision of concerned laws has been aimed at expanding the autonomy and discretionary power of public institutions, leading to the weakening of prior regulations and *ex post facto* responsibility to be enhanced. For instance, measures to strengthen public institutions' *ex post facto* responsibility include requiring them to publish their budget bills—i.e. via a management status notification system—and confirm their compliance with government budget guidelines by conducting management evaluations.

The third characteristic of budgeting at public institutions addressed here relates to the fact that the business of public institutions seeks both public interest and profitability, which at times may conflict with one another. Similarly, their budgets reflect both public responsibility and business rationality, so that one purpose of budget management becomes to effectively implement and improve efficiency of both businesses at the same time. Public institutions' budgets are similar to the government's budget in that they are focused on public interest, but at the same time they resemble the budgets of private enterprises in that they require efficient and flexible management.

The fourth characteristic is that each public institution adopts a unique accounting system. Unlike the government which uses a sole system, public institutions may each use an individual system, and thus accounting standards and items vary.

The fifth characteristic is that budgeting systems differ among public institutions. Most public institutions have made use of line-item budgeting, but a considerable number of public institutions have already adopted program budgeting. However, the period, methods and levels, and utilization of program budgeting vary considerably among institutions. Some institutions, even though they have adopted program budgeting, still draft their budget bills on a line-item basis.

The sixth characteristic is that institutions prepare budget bills in a variety of manners since the government provides only minimum standards for budget preparation. For this reason, the types and content of the information provided in budget bills or information regarding the grounds for budget calculation differ among institutions.

B. Issues Regarding Public Institutions' Budgeting

There are several issues surrounding budgeting at public institutions. First, the closing accounts of these institutions are managed and controlled in a multilateral way—for example, through approval by financial audit, the Ministry of Strategy and Finance, or general shareholders, audit by the Board of Audit and Inspection of Korea, reporting to cabinet meetings and the National Assembly, and other methods. However, their budgets are relatively less strictly controlled since they are entrusted with autonomy by their boards of directors. To reinforce the financial soundness of public institutions, it is important to supervise their business plans and budgets. However, under the current system focused on institutional autonomy and *ex post facto* responsibility, it is difficult to increase supervision of public institutions' budgets.

Second, there are challenges to clearly understanding institutions' business and budget data because most of them feature a line-item budgeting system. Line-item budgeting is an effective tool to control budgets by expense item, but the budgeting system does not provide sufficient information on the businesses carried out by an institution, the size of budget by business, and grounds for detailed budget calculation. To improve budget transparency at public institutions, it is necessary to offer budget information connected with their businesses as well as line-item budget information.

Third, a considerable number of public institutions have adopted program budgeting, but adoption levels and operation methods vary among institutions, making it difficult to apply common standards and fully comprehend their budgets. Program budgeting has been introduced for a range of reasons from differentiating between governmental public projects and an institution's profit-based business to strengthening institutional performance management. For this reason, different types of program budgeting are being operated among institutions. Furthermore, standards for classifying programs differ among public institutions, so institutions themselves may not accurately identify their major program areas or do not entirely reflect their programs.

C. Status and Issues Regarding Public Institutions' Drafting of Budget Bills

Currently, there exist no clear standards for public institutions' drafting of budget bills. Article 40 of the Act on the Management of Public Institutions specifies that a budget bill shall include the general budget provisions, an estimated income statement, an estimated balance sheet, and a financial plan. However, as explained above, the government provides such minimal guidelines for budget preparation and budget bill drafting that standards for preparing a budget and drafting a budget bill vary among public institutions—for instance, information types and contents of budget bills and grounds for budget calculation can all differ.

In addition, even institutions managing an enormous budget provide only bare-bones information without detailed calculations in their budget bills. Many budget bills do not provide sufficient information on how funds are spent. For example, a budget bill for 2012 that the Korea Expressway Corporation drafted for a budget amount totaling 9427.7 billion won provided only general information in its 44 total-page report on how the money would be spent.

<Table III-1> Sectoral Funds Plan in the 2012 Budget Bill of Korea Expressway Corporation

(Unit: KRW in thousands)

Revenues		Expenditures	
Account	Amount	Account	Amount
Ⅰ. Operations			
1. Earnings from gasoline sales	58,371,000	1. Cost of gasoline sales	55,722,000
2. Earnings from road management	3,151,000,000	2. Road management cost	1,895,553,000
3. Earnings from operating rest stops	160,711,000	• Personnel expenses	245,656,000
4. Earnings from support business	276,336,000	• Expenses	900,513,000
5. Earnings from incidental business	169,566,320	• Depreciation cost of toll road management rights	749,384,000
6. Earnings from finance/other	489,176,000	3. Cost of operating rest stops	46,208,000
7. Human capital method	4,500,000	4. General management cost	176,130,000
8. Subtraction of earnings involving no cash inflows	△395,750,000	5. Support business cost	276,336,000
		6. Incidental business cost	157,980,080
		7. Finance/other cost	1,449,485,362
		8. Valuation loss using the equity method	8,000,000
		9. Reserve fund	120,888,000
		10. Corporate tax	29,852,606
		11. Addition of costs involving no cash outflows	△1,315,834,000
(Subtotal)	3,913,910,320	(Subtotal)	2,900,321,048

Source: Korea Expressway Corporation's budget bill for 2011

Most public institutions only provide expenditure information by line item since they draft a budget bill on the basis of line-item budgeting. Only those public institutions adopting program budgeting provide detailed budget information by program or sub-function in their budget bills.

D. Publishing Budgets of Public Institutions

Currently, information on public institution budgets is disclosed online via ALIO. However, such information is limited only to the current fiscal year's revenues / expenditures, business costs by major business, and monthly budget spending. That is, while budget information opened to the public through ALIO presents the amount of an overall budget of an institution and the amount of budget by business, it lacks detailed information on its budget or businesses. In particular, there is no information available about the broader budget or major businesses of an institution, and no details regarding revenues / expenditures by business, making it difficult for ordinary users to get specific information in relation to an institution's budget and expenditure plans.

The ALIO webpage (click "public announcement" → click "public announcement about management by institution" → click any institution of interest → see "III. Major business and management performance" → see "14. Status of income / expenditure") does provide data on settlement accounts for the last five years and data on the budget for the current year of an institution and certain attached files found there do offer more detailed data on the institution's revenues and expenditures. However, the revenue and expenditure data relates to the institution's overall figures, so limitations still exist on acquiring information in detail.

IV

Analysis of Public Institutions' Operation of Program Budgeting

1 Analysis of the Introduction of Program Budgeting

A survey of 288 public institutions was conducted in order to examine the status of public institutions' introduction of segment accounting and program budgeting systems. Based on the survey results, this paper divided the 288 institutions into the two groups of those that had adopted program budgeting and those that had not. The scope and type of introduction were not considered, and whether an institution had adopted program budgeting or not wholly depended on their response to the survey.

The survey results showed that 105 public institutions, or 36.5 percent of the total, had introduced program budgeting. This indicates that a considerable number of public institutions have independently pursued its adoption and utilization. Four out of 14 market-based state-owned corporations and six out of 14 quasi-market-based state-owned corporations responded as having introduced it. As for quasi-governmental institutions, eight out of 17 fund-management-based institutions, and 30 out of 66 commissioned-service-based institutions reported having introduced it. As for other public institutions, 57 out of 177 institutions answered that they had adopted it. The introduction ratio was the lowest among market-based state-owned corporations (28.6 percent), whereas it showed its highest rate among fund-management-based quasi-governmental institutions (47.1 percent). The ratio surpassed 40 percent among quasi-market-based state-owned corporations, fund-management-based and commissioned-service-based quasi-governmental institutions.

<Table IV-1> Status of Introducing Program Budgeting

Type		No. of Institutions with Program Budgeting/Total No. of Institutions	Rate of Introduction
State-owned Corporations	Market-based	4/14	28.6%
	Quasi-market-based	6/14	42.9%
	Subtotal	10/28	35.7%
Quasi-governmental Institutions	Fund-management-based	8/17	47.1%
	Commissioned-service-based	30/66	45.5%
	Subtotal	38/83	45.8%
Other Public Institutions		57/177	32.2%
Total		105/288	36.5%

2 Analysis of the Level of Program Budgeting

Even though institutions responded that they made use of program budgeting, they might have applied it to their budget preparation differently and may also hold different conceptions of the system. Therefore, there is a need to group institutions according to levels of introduction. For this, stage of introduction is classified between full-scale introduction, perfunctory introduction, and effective non-introduction.

If an institution has introduced program budgeting to all its budgets, it can be considered to have adopted it at a full scale, even if joint expenses among departments are not reflected in the budgeting system; however, budget preparation has to be made on the basis of a hierarchical structure (i.e. sub-function, program, activity, and task). Performance-based budgeting is not considered here, so budget preparation need not to be linked to policy objectives or performance.

Perfunctory introduction refers to the following two cases: First, program budgeting has literally been introduced in a perfunctory manner; Second program budgeting has not been applied to all of the programs conducted by an institution, but only to selected programs or projects. In the first case, it is necessary for programs in the budgeting system to be clearly defined before a performance-based budgeting system can be developed in a real sense. That is, a hierarchical structure of sub-functions, programs, activities, and tasks must be clearly demonstrated in a budget bill. When an institution adopts perfunctorily, the classification of sub-functions and programs is commonly not closely linked to the main roles and goals of the institution. Furthermore, activities and tasks—the subcategories of a programs—are not meticulously classified. For instance, budgets are prepared for activities but not for tasks. To summarize, a perfunctory introduction can be regarded as follows: Even though budgets appear to be categorized on a program basis, in actuality there are no reasonable standards for dividing programs or budgets, or the hierarchical structure of a program is unsatisfactory.

As for the second case, where program budgeting is applied to only certain of the programs carried out by an institution, the survey showed that out of their full body of programs some institutions were only applying the system to programs stipulated in related legislation. It was also found that institutions applying it to only a portion of their programs demonstrated poor program categorization. Therefore, this paper considered either of these two—applying it to only a portion of programs or showing unsatisfactory program categorization—as perfunctory introduction.

Meanwhile, some institutions responded that they had introduced program budgeting but it proved difficult to confirm this response since their respective budget bills did not contain information about the classification of budgets by program. Under program budgeting, a budget bill must demonstrate a hierarchical program structure and a clear division among programs. Therefore, if these preconditions were not satisfied in the budget bill, this study classed the concerned institution as "effective non-introduction."

This study analyzed 93 budget bills from state-owned corporations and quasi-governmental institution s. The analysis results showed that, in contrast to the figure found through the aforementioned survey, there were not a great number of institutions that had fully introduced the system. According to the analysis, only 17 (18.3 percent) out of 93 institutions had applied program budgeting to their full range of programs and established systematic program structures—in other words, had implemented a full scale introduction of the system—whereas 50 (60.2 percent) institutions had introduced it in a perfunctory manner.

<Table IV-2> Introduction and Level of Program Budgeting by Type of Public Institutions

(Unit: number of institutions, %)

		Full-scale introduction	Perfunctory introduction	Effective non-introduction	Total
State-owned corporation	Market-based	2	6	6	14
		(14.3)	(42.9)	(42.9)	(15.1)
	Quasi-market-based	1	8	5	14
		(7.1)	(57.1)	(35.7)	(15.1)
	Subtotal	3	14	11	28
		(10.7)	(50.0)	(39.3)	(30.1)
Commissioned-service-based quasi-governmental institutions		7	37	6	50
		(14.0)	(74.0)	(12.0)	(53.8)
Fund-management-based quasi-governmental institutions		7	5	3	15
		(46.7)	(33.3)	(20.0)	(16.1)
Total		17	56	20	93
		(18.3)	(60.2)	(21.5)	(100.0)

Among institutions that reported having introduced program budgeting, levels of introduction differed among different types of institutions. It was found that only a limited number of institutions had introduced full-scale program budgeting by establishing a hierarchical program structure based on policy objectives. In contrast, most were found to have introduced it either perfunctorily or partially—either they did not establish a hierarchical program structure, or they classified their budgets by division or by revenue sources. It was found that even institutions which had claimed not to have introduced program budgeting at all also classified their programs to a certain degree. In particular, even though fund-management-based or commissioned-service based quasi-governmental institutions had not reported having fully introduced program budgeting, they had made budget preparation according to the classification of programs.

The type of public institutions that introduced program budgeting at the highest rate is fund-management-based quasi-governmental institutions. This study examined the budget bills of 15 fund-management-based institutions, and found that 46.7 percent of them had introduced full-scale program budgeting. The ratio went up to 80 percent when cases of perfunctory introduction were included. The proportion of "effective non-introduction" was 20 percent.[5] As for commissioned-service-based quasi-governmental institutions, the proportion of "effective non-introduction" was low (12 percent), but the ratio of perfunctory introduction was high. Among state-owned corporations, the ratio of "effective non-introduction" was significantly high (approximately 39.3 percent).

The degree of introduction varied depending on the characteristics of institutions. Most state-owned corporations generally operated budgets based not on program budgeting but on corporate accounting. For this reason, the ratio of "effective non-introduction" was high among state-owned corporations.

Meanwhile, fund-management-based / commissioned-service-based quasi-governmental institutions, to a certain degree, classified businesses according to program budgeting because their main businesses were policy projects financed by the government, leading them to organize their budgets according to government program budgets. For this reason, in the analysis results, most of the quasi-governmental institutions were

5) The proportion was lower among commissioned-service-based quasi-governmental institutions (12%). However, the full-scale introduction share was much higher among fund-management-based institutions than among commissioned-service-based examples, so this study considered the level of introduction to be higher in fund-management-based institutions.

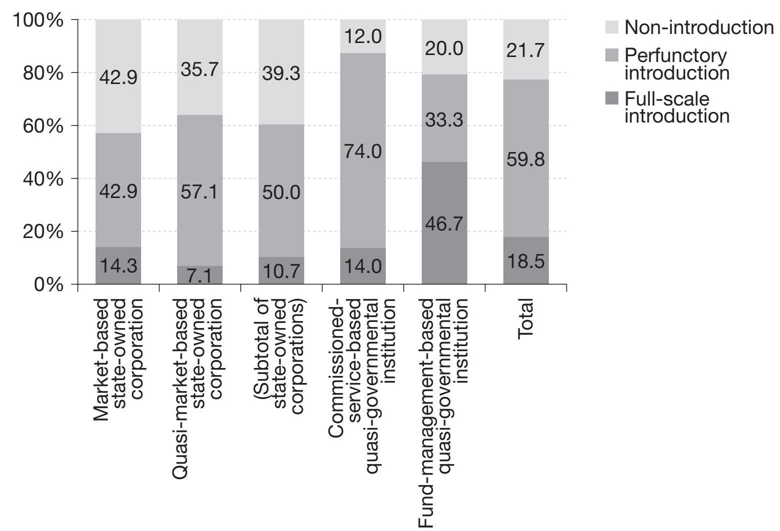
categorized as either in full-scale introduction or in partial or perfunctory introduction.

Public institutions that were categorized as state-owned corporations usually prepared budgets according to corporate accounting. In other words, their budget preparation is performed through the classification of expense items under income statement, balance sheet, etc. rather than according to classification by program. In addition, their budget preparation is made by splitting budgets into profit and loss budget, capital budget, financial budget, and purchase budget according to functional classifications. With these state-owned corporations, it is not a budget bill but a business plan that reveals their key businesses in detail. This is because their management performances are evaluated by the government on an annual basis, so they appear to have established and managed performance indicators of strategies and businesses. However, these business plans only provide data on objectives and performance indicators of major businesses and focus purely on major businesses to the exclusion of overall businesses. Furthermore, these business plans are unconnected to budgets and thus do not appear to be appropriate for use as program budgeting data. Cases in point include the Korea National Oil Corporation, Korea Hydro and Nuclear Power Co., Ltd., Korea Electric Power Corporation, Korea District Heating Corporation, Korea Expressway Corporation, and Korea Railroad Corporation, among others.

Fund-management-based quasi-governmental institutions generally manage and operate government funds. Therefore, most of those institutions executing government fund programs without proprietary businesses are found to prepare their budgets according to program budgeting. Just as the government has already introduced and implemented program budgeting, fund-management-based institutions have also introduced and applied it to their operations financed by the government. For this reason, these businesses have characteristics more of a policy-project rather than a profit-seeking nature.

Similarly to fund-management-based institutions, commissioned-service-based quasi-governmental institutions also managed government programs, but most of them pursue their own businesses as well. Therefore, they introduced and applied program budgeting to businesses commissioned by the government but maintained their previous budget classification system for their own businesses. For this reason, they were categorized among those which had introduced program budgeting perfunctorily, rather than among those which had introduced it full-scale.

[Figure IV-1] Introduction of Program Budgeting by Type of Public Institution



Some institutions were found to not clearly comprehend program budgeting, because even though their functions, characteristics, and budget preparation process were similar to others, they answered differently regarding the introduction of program budgeting.

Next, this study examined the introduction of program budgeting by competent ministries and offices of public institutions. Currently, with the exception of other public institutions, state-owned corporations and quasi-governmental institutions were supervised by approximately 17 ministries and offices, such as the Ministry of Knowledge Economy, the Ministry of Land, Transport and Maritime Affairs, the Financial Services

Commission, and the Small and Medium Business Administration. The Ministry of Knowledge Economy had the most affiliated public institutions with 32, followed by the Ministry of Land, Transport and Maritime Affairs with 19, and the Ministry of Culture, Sports and Tourism, the Ministry for Food, Agriculture, Forestry and Fisheries, and the Financial Services Commission with seven institutions each. The Ministry of Knowledge Economy supervised 12 state-owned corporations and 18 commissioned-service-based quasi-governmental institutions, most of which specialized in energy-related business such as electricity, gas, and power generation, while others focused on information and communication, science technology, and industrial development. <Table IV-13> summarizes program budgeting introduction levels by competent ministry/office.

<Table IV-3> Program Budgeting Introduction Status by Competent Ministry/Office

(Unit: number of institutions, %)

	Full Introduction	Perfunctory Introduction	Non-Introduction	Total
Ministry of Knowledge Economy	3	20	6	29
	(10.3)	(69.0)	(20.7)	(31.2)
Ministry of Land, Transport and Maritime Affairs	4	7	7	18
	(22.2)	(38.9)	(38.9)	(19.4)
Ministry of Culture, Sports and Tourism	3	4	0	7
	(42.9)	(57.1)	(0.0)	(7.5)
Ministry for Food, Agriculture, Forestry and Fisheries	0	4	1	5
	(0.0)	(80.0)	(20.0)	(5.4)
Financial Services Commission	0	2	4	6
	(0.0)	(33.3)	(66.7)	(6.5)
Ministry of Health and Welfare	1	4	0	5
	(20.0)	(80.0)	(0.0)	(5.4)
Ministry of Education, Science and Technology	0	4	1	5
	(0.0)	(80.0)	(20.0)	(5.4)
Ministry of Employment and Labor	2	2	0	4
	(50.0)	(50.0)	(0.0)	(4.3)

<Table IV-3> Continue

(Unit: number of institutions, %)

	Full Introduction	Perfunctory Introduction	Non-Introduction	Total
Other	4	9	1	14
	(28.6)	(64.3)	(7.1)	(15.1)
Total	17	56	20	93
	(18.3)	(60.2)	(21.5)	(100.0)

Among the public institutions under the Ministry of Culture, Sports and Tourism, the Ministry of Health and Welfare, and the Ministry of Employment and Labor, no institution was identified as "effective non-introduction." This is because most of the businesses conducted by these institutions are policy projects, so they must have introduced project budgeting at least to some degree.

Meanwhile, among the six public institutions under the Financial Services Commission, four (66.7 percent) have effectively not introduced it and the rest two merely introduced it in a perfunctory manner, indicating that the status of introduction under the supervision of the Financial Services Commission was the most insufficient. Considering that all of the institutions under the Financial Services Commission are made up of fund-management-based quasi-governmental institutions, this result is the opposite of the aforementioned finding that the level of introduction was the highest among fund-management-based quasi-governmental institutions. Regardless of average introduction status by type of institution, these institutions were likely to have made relatively little effort to introduce and apply new systems. In fact, they were not subject to the management performance evaluation applied to public institutions, but were instead separately assessed by the Financial Services Commission, which may have led to them placing little effort into introducing new systems.

Lastly, this study classified program budgeting introduction levels on the basis of the area of businesses carried out by public institutions. Business areas were broadly classified into eight categories: Education and culture; finance; agriculture and fisheries; health and welfare; industrial development; energy and resources; information and communication; and social overhead capital (SOC) and construction. The area of energy and resources included 24 public institutions, which was the largest number, followed by the health and welfare area with 17; the SOC and construction area with 15; and the industrial development area of 14 public institutions. <Table IV-4> shows the classification of public institutions according to business area.

<Table IV-4> Classification of Public Institutions by Business Area

Area	Institution Name
Education and Culture (12)	Korea Broadcast Advertising Corporation, Korea Tourism Organization, Korea Creative Content Agency, Korea Foundation for the Advancement of Science and Creativity, National Research Foundation of Korea, Korea Education & Research Information Service, Korea Student Aid Foundation, Arirang International Broadcasting Foundation, Korea Press Foundation, Arts Council Korea, Korea Film Council, Korea National Parks Authority
Finance (11)	Korea Housing Guarantee Co., Ltd., Korea Securities Depository, Postal Savings and Insurance Development Institute, Korea Exchange, Korea Housing Finance Corporation, Korea Credit Guarantee Fund, Korea Deposit Insurance Corporation, Korea Asset Management Corporation, Korea Technology Finance Corporation, Korea Trade Insurance Corporation, Korea Minting and Security Printing Corporation
Health and Welfare (17)	Korea Labor Force Development Institute for the Aged, Korea Employment Information Service, Korea Youth Work Agency, Korea Health and Welfare Information Service, Korea Health Industry Development Institute, National Health Insurance Corporation, Health Insurance Review and Assessment Service, Korea Youth Counseling and Welfare Institute, Korea Employment Agency for the Disabled, Korea Veterans Health Service, National Pension Service, Korea Sports Promotion Foundation, Teachers' Pension, Government Employees Pension Service, Korea Workers' Compensation and Welfare Service, Independence Hall, Korea Consumer Agency
Industrial Development (14)	Korea Institute of Design Promotion, Korea Industrial Complex Corporation, Korea Technology and Information Promotion Agency for Small and Medium Enterprises, Korea Institute for Advancement of Technology, Korea Trade-Investment Promotion Agency, Korea Evaluation Institute of Industrial Technology, Korea Testing Laboratory, Korea Occupational Safety and Health Agency, Human Resources Development Service of Korea, Small and Medium Business Corporation, Korea Institute of Fire Industry and Technology, Korea Infrastructure Safety Corporation, Korea Elevator Safety Institute, Korea Environment Industry and Technology Institute

<Table IV-4> Continue

Area	Institution Name
Energy and Resources (24)	Korea Radioactive Waste Management Corporation, Korea Water Resources Corporation, Korea Resources Corporation, Korea Coal Corporation, Korea Energy Management Corporation, Korea Institute of Energy Technology Evaluation and Planning, Korea Institute of Ceramic Engineering and Technology, Korea Institute of Nuclear Safety, Korea Reclamation Corporation, Korea Petroleum Quality and Distribution Authority, Korea Gas Safety Corporation, Korea Power Exchange, Korea Electrical Safety Corporation, Korea South East Power Co., Ltd., Korea Southern Power Co., Ltd., Korea Gas Corporation, Korea East-West Power Co., Ltd., Korea District Heating Corporation, Korea Electric Power Corporation, Korea Western Power Co., Ltd., Korea Hydro and Nuclear Power Co., Ltd., Korea Midland Power Co., Ltd., Korea National Oil Corporation, Korea Environmental Corporation
SOC and Construction (16)	Korea Expressway Corporation, Korea Land Housing Corporation, Yeosu Gwangyang Port Authority, Korea Railroad Corporation, Jeju Free International City Development Center, Korea Institute of Construction and Transportation Technology Evaluation and Planning, Korea Rail Network Authority, Korea Ship Safety Technology Authority, Korea Airports Corporation, Incheon International Airport Corporation, Incheon Port Authority, Busan Port Authority, Korea Appraisal Board, Korea Cadastral Survey Corporation, Korea Transportation Safety Authority, Road Traffic Authority
Information and Communication (6)	National Information Society Agency, Korea Postal Service Agency, National IT Industry Promotion Agency, Korea Internet Security Agency, Korea Postal Logistics Agency, Korea Communications Agency
Agriculture and Fisheries (9)	Korea Racing Authority, Korea Institute for Animal Products Quality Evaluation, Foundation of Agri. Tech. Commercialization &Transfer, Korea Agro-Fisheries and Food Trade Corporation, Korea Rural Community Corporation, Korea Livestock Products HACCP Accreditation Service, Korea Institute of Maritime and Fisheries Technology, Korea Institute of Planning and Evaluation for Technology in Food, Agriculture, Forestry, and Fisheries, Korea Fisheries Resources Agency

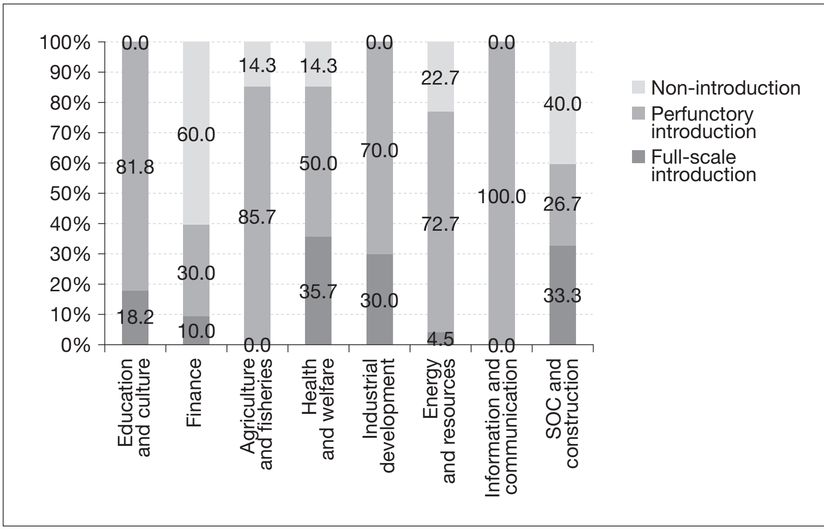
Each respective business area showed a different level of introduction of program budgeting. The highest was found among the areas of health and welfare, industrial development, and SOC and construction. Within these fields, over 30 percent of public institutions had introduced full-scale program budgeting. In contrast, the area of finance showed the lowest level: about 60 percent of public institutions in this area had effectively not introduced it. The education and culture, industrial development, and information and communication areas included no public institutions that were categorized as “effective non-introduction.” However, in these areas, the proportion of institutions that introduced it at full scale was low while that of those introducing it perfunctorily was relatively high.

<Table IV-5> Status of Introducing Program Budgeting by Public Institution Business Area

(Unit: number of institutions, %)

	Full-Scale Introduction	Perfunctory Introduction	Non-Introduction	Total
Education and Culture	2	9	0	11
	(18.2)	(81.8)	(0.0)	(11.8)
Finance	1	3	6	10
	(10.0)	(30.0)	(60.0)	(10.8)
Agriculture and Fisheries	0	6	1	7
	(0.0)	(85.7)	(14.3)	(7.5)
Health and Welfare	5	7	2	14
	(35.7)	(50.0)	(14.3)	(15.1)
Industrial Development	3	7	0	10
	(30.0)	(70.0)	(0.0)	(10.8)
Energy and Resources	1	16	5	22
	(4.5)	(72.7)	(22.7)	(23.7)
Information and Communication	0	4	0	4
	(0.0)	(100.0)	(0.0)	(4.3)
SOC and Construction	5	4	6	15
	(33.3)	(26.7)	(40.0)	(16.1)
Total	17	56	20	93
	(18.3)	(60.2)	(21.5)	(100.0)

[Figure IV-2] Status of Introducing Program Budgeting by Public Institution Business Area



3 Analysis of Reasons for Introducing Program Budgeting

According to an analysis of the survey responses, the reasons for public institutions' introduction of program budgeting could be categorized largely into internal and external reasons. One of the most frequently cited internal reasons was the necessity for keeping essential businesses and revenue-making businesses separate for the calculation of corporate tax. Article 113 (1) (Separate Accounting) of the Corporate Tax Act stipulates: "Where a non-profit corporation operates profit-making business, the assets, liabilities, and profits and losses of the relevant profit-making business and those of the other business which is not a profit-making business shall be separately accounted, and separate accounts shall be maintained." For this reason, to benefit from a corporate tax status of non-profit corporation, a public institution is obliged to account its revenue-making businesses separately from other businesses. According to the survey results, one of the main purposes of introducing program budgeting was to classify budget and settlement of accounts on a business basis and to classify businesses into revenue-producing or non-revenue producing. A total of 14 public institutions including the Jeju Free International City Development Center answered as such.

The second reason for introducing program budgeting included the internal need of institutions for profit and loss analysis by business and transparent budget disbursal, among other reasons. This purpose appears similar to the above-mentioned purpose (i.e. to calculate corporate tax), but it differs in that it is more active. Institutions presented their reasons for introducing it as expense management and profit / loss analysis by business, as well as transparent budget allocation and spending—specifically, rational resource allocation based on performance goals (Korea Cadastral Survey Corporation), efficient financial management by business or regional office (Korea Labor Force Development Institute for the Aged), strengthening responsibility for budgeting (Korea Electric Power Corporation KDN) and cost calculation by business (Korea Research Institute for Vocational Education and Training). These responses are consistent with the original purposes of program budgeting of boosting budget transparency, expanding divisional responsibility for budget allocation and spending, and strengthening performance management. A total of 16 institutions including Korea Invention Promotion Association cited internal necessity as their reason for introducing program budgeting.

The third reason for introducing program budgeting was due to an obligation to segment their accounting that was imposed on every institution financed by government support funds. A total of 19 institutions, including the Korea Invention Promotion Association, mentioned this cause. If a public institution is financed by the government through the forms of subsidy, contribution, or funding, relevant laws require that the public institution perform segmented accounting for a concerned business or to separately disperse the budget for the concerned business. For instance, according to Article 12 (Separate Accounting) of the State-Owned Enterprise and Quasi-Government Institution Accounting Standards, state-owned corporations and quasi-governmental institutions must classify their accounts based on sources of revenue or essential businesses if establishment laws or other laws so require. When an institution performs segment accounting, it is obliged to issue a consolidated statement of accounts that combines segment accounts after omitting internal transactions and unrealized intercompany profits. At that time, management performance and financial status by accounting unit have to be explained through annotations. In particular, the standards require that state-owned corporations and quasi-governmental institutions should prepare a separate balance sheet for the funds they manage and operate pursuant to relevant laws. In consequence, it is believed that fund-management-based institutions, commissioned-service-based institutions, government-supported research institutes, and other government-subsidized institutions may experience this type of cause for adopting program budgeting, even though they did not so respond in the survey. Since the government has already adopted program budgeting, they need to operate the same or a similar budgeting system in order to clarify how the government's budget and theirs are interrelated. In addition, their businesses are financed through governmental funds, so they need to disclose their budget spending in a transparent and rational manner.

The final reason for introducing program budgeting was that relevant laws required institutions to classify their businesses, even where there were no specific requirements for government budget support. A total of six institutions including the Korea Rail Network Authority cited this reason. A segment accounting system is obligatory due to the necessity for segmental accounting on a business basis if an institution carries out a policy project or requires government financial support for business losses. If an establishment law or other statutes and regulations require an institution to perform segment accounting, it should then segment its accounts by business. Currently, institutions subject to applicable acts that require segment accounting include Korea Gas Corporation, Korea Land and Housing Corporation, Korea Electric Power Corporation, and Korea District Heating Corporation. Those laws demand in the section pertaining to segment accounting that every concerned public institution should classify its businesses into main businesses and other business. The rationale behind this requirement is to allow the calculation of the detailed costs of main business and then reflect it when charges are adjusted or funds are provided in the future. However, as seen in the above-mentioned responses, the obligation for segment accounting does not necessarily mean the introduction of program budgeting, and only some institutions under applicable acts (see below table) that stipulate segment accounting have introduced program budgeting.

<Table IV-6> Institutions Introducing Segment Accounting and Applicable Acts

Name	Applicable Act	Classification	Enacted
Korea Gas Corporation	Article 40-2 of the Urban Gas Business Act	Gas supply facility business and others	Jan. 1995
Korea Land Housing Corporation	Article 28-2 of Korea Land and Housing Corporation Act	Public work eligible for loss compensation and others	Apr. 2011
Korea Electric Power Corporation	Article 93 (2) of the Electric Utility Act (Separation of Accounting)	Electric utility business and others	Dec. 1977
Korea District Heating Corporation	Article 20-2 of the Integrated Energy Supply Act	Integrated energy supply business and others	Feb. 1999

Source: Data from the Korea Institute of Public Finance

To sum up, the reasons underlying public institutions' introducing program budgeting can be categorized between internal necessity and external obligation. Due to the nature of public institutions, many of them are affected by external obligations. However, a considerable number of them have also voluntarily introduced it out of internal necessity. This result has significant implications for studying ways to introduce program budgeting to public institutions in the future: First, program budgeting is essential for those institutions that are granted a considerable volume of government financial support as a means to boost their budget transparency; second, since a number of public institutions have already introduced segment accounting and program budgeting, introducing program budgeting in the future can be regarded as appropriate in terms of validity or ease of introduction; third, the fact that many institutions have voluntarily introduced to meet internal needs is indicative of the effectiveness of program budgeting.

However, as seen previously, level of introduction varied among public institutions and some institutions were deemed to have introduced it in actuality even though they did not report having done so. Furthermore, as seen in the analysis of reasons for introducing program budgeting, it was unclear whether public institutions responded in confusion between program budgeting and segment accounting. It was also revealed in the process of conducting the survey that the understanding of respondents—or persons in charge of budgeting in public institutions—regarding program budgeting was not invariably accurate. Therefore, this study's analysis must be carefully interpreted with these limitations in mind.

V

Case Studies of Implementation of Program Budgeting

1 Central Government

A. Background of Introduction of Program Budgeting

Program budgeting was pursued and implemented by the central government as part of a comprehensive financial reform effort. Top-down budgeting, medium-term expenditure framework (MTEF), performance-based budgeting, and a digital accounting system have all been introduced since 2003. Among these, the digital accounting system was introduced in order to develop a structure for program budgeting and an integrated computerized system for budgeting and accounting.

Established in 2003, the Digital Accounting System Team was charged with the introduction of accrual-basis accounting, development of a program budgeting structure, and establishment of the financial management information system, including processes for budgeting and accounting. It defined the ranges of finance, integrated those systems that had been separately operated by the Ministry of Finance and Economy and the Ministry of Planning and Budget into a single financial management information system, and established criteria for accrual-basis accounting. As a result, a program budgeting structure was developed and a financial management information system known as dBrain entered operation in

2007. Accrual-basis accounting was eventually introduced to the process of closing accounts later than originally scheduled. It was introduced to ministries and offices across the board beginning in 2010, following the 2009 implementation of a pilot program.

The development and introduction of a program budgeting structure was pursued by central ministries as a reform agenda independent of the performance management of budgetary programs. In theory, it is desirable for a program budgeting structure to be developed first in order to lay a foundation based upon which the performance management of budgetary programs can later be introduced. In the case of South Korea, however, the program budgeting structure and the performance management of budgetary programs were developed and operated by distinct organizations. This can be regarded as a side-effect of the process of a variety of financial reform programs being pursued simultaneously. It was the consideration of the Digital Accounting System Team responsible for the development of the program budgeting structure that the purpose of developing a program budgeting structure was to enhance the transparency of fiscal operations and make use of top-down budgeting rather than laying a foundation for the management of budgetary programs.[6)]

B. Scope of Introduction

A program budgeting structure was introduced for utilization both in budgeting and in the closing of accounts processes by the government. However, the accounting standards for the budget and for settlement of accounts currently differ: Cash-basis accounting standards are used for budgeting and accrual-basis standards for closing of accounts have been applied since 2010.

C. Program Classification Unit

The hierarchy of the program budgeting structure includes function, sub-function, program, and activity at the governmental level, and

6) This description is based on personal contact with a member of the planning team.

program and activity within a ministry. The existing line-item budgeting system consists of chapter, section, paragraph, subparagraph and sub-subparagraph. Subparagraph refers to tasks performed by office or bureau unit of each ministry, while sub-subparagraph corresponds to tasks performed by offices and bureaus. In Article 21 of the National Financial Act ("Classification of Revenue and Expenditure Budgets"), expenditure budgets are divided into chapter, section, paragraph, subparagraph, and object according to their function or nature or by relevant institution. Chapter and section are divided by functions performed by the government and, in terms of the program budgeting system, chapters correspond to functions, sections to sub-functions, paragraphs to programs, and subparagraphs to activities.

The fiscal year 2011 budget consists of 16 functions, 69 sub-functions, 741 programs, and 3,064 activities. A program refers to a set of activities sharing the same policy objective, while an activity refers to either an integrated or simplified unit of existing sub-subparagraphs used as a means to achieve the goals of a program or a sub-subparagraph that is meaningful in its own right.

D. Aligning Organization with Budget Classification

One of the basic principles in developing a program budgeting structure for the central government is to pair the units used for classifying organizations with budgets. No program involving multiple ministries was allowed. The structure was developed in such a way that a program within a given ministry corresponds to an office or bureau unit and each activity to a department.

In order to clearly assign responsibility for each program, the program budgeting structure was designed to match a program with the structure of the organization involved. In addition, the program budgeting structure was developed to reflect the existing structure to the fullest extent possible without any fundamental examination of the organization structure itself. Since the program budgeting structure was developed to match existing structures, there emerged the issue of compatibility with the goal of performance management.

E. Distribution of Joint Expenses

Since administrative support costs were separately established, personnel and current expenses were not distributed on a program basis. Personnel expenses and current expenses were separately classified when a particular business was entrusted to an outside agency, while for those businesses performed directly by the central government it was problematic that joint expenses were not distributed. For a business where the central government was directly involved to a great extent or where a majority of ministries were involved, the administrative support costs program made up a considerable portion of the total budget of the organization. With the implementation of accrual-basis accounting in 2010, costs are to be estimated at the program level for special accounts and funds. In addition, a plan was announced for costs including indirect costs to incrementally be estimated for general accounts as well.

F. Link with Performance Management

In its initial phase of development, program budgeting structure was linked to performance management, but not automatically so. As the development of a program budgeting structure and the operation of performance management of budgetary programs were undertaken by separate organizations within the government, they were not smoothly linked in the early stages. Independent of program budgeting structure, performance management of budgetary programs was pursued mainly in pilot ministries beginning in 2003, and was then adopted in earnest from 2005. With the completion of the development of a program budgeting structure, performance management of budgetary programs has been in operation centered on activities since 2007.

There was an issue with the difficulty of identifying performance information for the program budgeting structure since the hierarchical structure of performance goals in the performance management of budgetary programs was not consistently linked to that of program budgeting. This inconsistency in linkage occurred because the performance management of budgetary programs was first implemented in the absence of any program budgeting structures, and in so doing, unlike the existing organizational structure, a performance goal structure for managing financial performance was flexibly established as a means to better serve the purposes of performance management. As these inconsistencies became recognized in policy research (Park, No-wook et al., 2008) and by the National Assembly, a need for improvement was voiced. At present, attempts are being made to align the hierarchical structure of performance goals for performance management with that of program budgeting in order to enhance their consistency. The National Finance Act was amended in 2010 to state that, in principle, budget structures in performance plans and programs should match one another. Thanks to years of efforts, both structures do nearly correspond as of 2012, with the exception of within select ministries.

Governmental budget projects are reviewed every three years for reflection in the process of budgeting through Self-Assessment of Budgetary Programs, a crucial component of the performance management of budgetary programs. Activities are used as the unit of review and are rated in the self-assessment of budgetary programs. It is stated in the budget preparation guidelines annually distributed to ministries that any activity rated as “inadequate” or lower in the assessment shall be subject to a minimum 10% budget reduction.

G. Utilization of Program Budgeting

To ensure ease of utilization, the program budgeting structure was actualized through the financial management information system. This allowed for integrative real-time viewing of information related to budgeting, execution, and closing of accounts corresponding to program budgeting structure, but left a degree of room for improvement. Specifically, the degree of integration with other information systems within the central ministries, accessibility of relevant information, and utilization in the process of decision making all require improvement.

H. Impacts of Program Budgeting

The primary effect of the program budgeting system is that the transparency of the governmental budget is enhanced once government budget is classified based on policy goals. Here "transparency" refers to stakeholders being easily able to understand how government resources are allocated. Of course, such allocation of resources means allocation by policy area and it is not easy to disclose the details of resource allocation where certain stakeholders are involved. For the Korean central government, the direction of medium-term budget allocation is provided to the citizenry through the National Fiscal Management Plan and such disclosure facilitates public discussion on policy priorities.

The integration of the program budgeting system with performance information may lead to the reinforcement of the performance management of budget projects undertaken by the government. In other words, it allows for the monitoring and evaluation of the progress of any business toward achieving certain policy goals. In particular, a program budgeting structure can contribute to reducing the costs of performance management and enhancing its effectiveness by providing sub-structures that enable systematic and comprehensive performance management. In fact, since the completion of the development of the program budgeting structure in 2007, performance management of budgetary programs has been operated mainly for activities and in a more systematic manner and, more recently, performance programs have been pursued by checking connectivity with parent programs. However, in developing a program budgeting structure, a separate program-support costs program has been established, resulting in a dead zone in performance management.

I. Conclusion and Implications

Currently, the central government is not fully realizing the ideal goals of a program budgeting system and local governments are likely to experience similar results. In order to optimize the effectiveness of the program budgeting system, first, the degree of autonomy afforded to a ministry for budgeting and execution should be appropriately defined and implemented. Program budgeting introduced without providing enhanced autonomy to ministries may lead to the enhancement of information transparency but still fail to enhance performance management based on responsibility and autonomy. Second, the inconsistency between the performance management system and the program budgeting structure needs to be addressed. Any program budgeting structure developed depending heavily on the existing organizational structure needs to be revisited in terms of the objectives of performance management. Third, it should be determined how much flexibility will be allowed for changing program budgeting structures. To ensure ease of budgeting and control, central budget authorities have a strong tendency to maintain a program budgeting structure once it has been established. However, the program budgeting structure needs to respond to changing conditions in a flexible manner. Fourth, there is a need to review whether a program-support costs program that has been separately set within the program budgeting structure needs be reduced to a certain degree through distribution of indirect costs or abolished. To relieve the burden on the initial development of a program budgeting structure, it is not uncommon to establish a separate program-support costs program. For an organization where personnel costs make up a considerable share of expenses, however, it is not easy to enhance efficiency through the operation of the performance management of budgetary programs. Thus, gradual efforts need to be made by focusing on those areas where efficiency has the greatest impact. It is expected that the central government will make gradual improvements at the request of the National Assembly and other stakeholders. Fifthly, although financial information corresponding to program budgeting structure is embedded in the system, performance information that is non-financial in nature remains in an initial phase for further embedding. For performance information to be properly implanted within the system, it should be developed to correspond to conditions where performance management of budgetary programs is operated.

2 Local Governments

A. Background of Introduction of Program Budgeting

Program budgeting,[7)] the basis for the performance management of budgetary programs as a part of financial reform in local governments, has been implemented in full by local governments after undergoing pilot operation since 2004. Under the preparation guidelines issued to local governments for fiscal year 2004 budgets, some local governments were designated as pilot institutions for implementing program budgeting beginning July 2003. First three local governments were designated for implementation in 2003, followed by nine in 2004, 50 in 2005, and eventually all of them. It was determined in the 41st Meeting for National Policy Agenda held in March 2004 that the budgeting and accounting systems of local governments be entirely reorganized. The initial program budgeting manual was developed in December 2004, followed by the 2007 manual for pilot operation in December 2006. In August 2005, Article 5 of the Local Finance Act prescribed performance-based fiscal operations, setting the grounds for the introduction of program budgeting. On a trial basis in March 2007, all local governments prepared and submitted to their respective local assemblies their budget bills for 2007 based on program budgeting rather than on conventional line-item budgeting. This led to the full implementation of program budgeting for local governments in January 2008.

In addition, the introduction and operation of the performance management of budgetary programs utilizing program budgeting are now being pursued by local governments on a voluntary basis. Local governments autonomously implemented the system for the 2009 budget,

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7) 'Programming budgeting' or 'planning-programming budgeting system' is a term adopted from 'program structure' and used by the Ministry of Public Administration and Security. It is also known as "program budgeting" by central ministries. As 'program' refers here to a collection of businesses or activities pursued to achieve a shared objective, it has broader meaning than 'business' as commonly used in South Korea. In other words, 'business' is a concept with similar meaning to 'project,' while 'program' is a super-ordinate concept that encompasses a variety of projects. For the purpose of this study, the term 'program budgeting' designated by the Ministry of Public Administration and Security will be used.

and pilot local governments were selected for the for 2010 version. The leading budget institutions in 2009 were Seoul, Gangwon-do, and Jeollabuk-do. In 2010, performance budget bills were prepared on a trial basis among all wide-area local governments. In 2011, performance budget bills were prepared by all wide-area local governments. The Seoul city government attempted to connect performance with budgeting by introducing performance-based budgeting for the first time among all local Korean governments. In fact, the Ministry of Public Administration and Security introduced the case of Seoul to local governments.

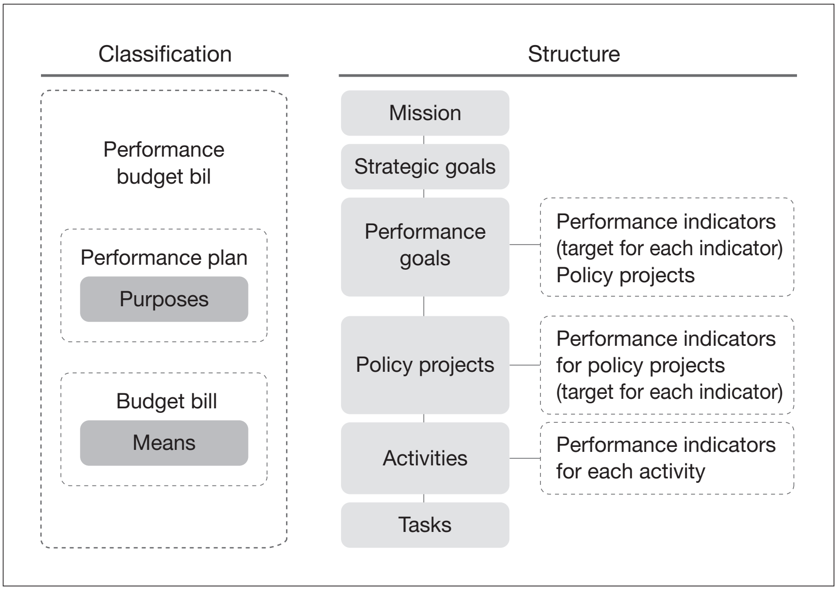
B. Scope of Introduction

As with the central government, the program budgeting structure was introduced for utilization in both the budgeting and closing of accounts processes by the government. However, the accounting standards for budgeting and closing of accounts differ: Cash-basis for budgeting and accrual-basis for closing of accounts since 2010.

C. Program Classification Unit

Based on the program budgeting guidelines for local governments, the program budgeting system features a structure as shown in [Figure V-1] below. The functions of local governments are divided into 51 functions under 13 sub-functions.

[Figure V-1] Structure of Program Budgeting System for Local Governments



Once strategic and performance goals had been established based on organizational missions, policy projects, activities, and tasks were established in order to achieve these goals. Organizational missions and strategic and performance goals refer to objectives while policy projects, activities, and tasks are the means to achieve them.

Program structure is comprised as follows. The overall finances of local governments are divided into policy projects, administrative expenses, and financing activities; activities and tasks are set under a policy project; budgeting and statistical items under a task; and calculation basis is provided under a statistical item.

[Figure V-2] Program Budgeting Structure of Local Governments

	Program structure						
Top level				Functions·Sub-functions	Office Department	Strategy Performance	
Policy	Policy project			Administrative expenses		Financing activity	
Unit	Activity	Activity	Activity	Personnel expenses	General expenses	International transaction expenditures	Expenditures for financing
Details	Task	Task	Task	Personnel expenses (Task)	General expenses (Task)	International transaction expenditures (Task)	Expenditures for financing (Task)
Nature Nature	Budgeting item	Budgeting item	Budgeting item	Budgeting item	Budgeting item	Budgeting item	Budgeting item
	Statistical item	Statistical item	Statistical item	Statistical item	Statistical item	Statistical item	Statistical item
Bookkeeping	Calculation basis	Calculation basis	Calculation basis	Calculation basis	Calculation basis	Calculation basis	Calculation basis

D. Aligning Organization with Budget Classification

Local governments adopted the same approach to align the classification of organization with program structure as with the central government. While an office or a department may launch multiple policy projects, a policy project must fall under a single area. In particular, when a policy project involves multiple organizations, their respective projects are differently named so as to be distinctive. Additionally, when activities under a single policy project involve multiple offices or departments, the project is adjusted so that it can be associated with only one office / department.

E. Distribution of Joint Expenses

Like the central government, local governments classified personnel and general expenses featuring a strong nature as indirect costs into a separate program known as administrative expenses. In other words, the distribution of general expenses was not pursed separately. The administrative expense program, the minimum expenses required for the operation of the administrative organizations of a local government, is classified into personnel expenses based on the sum total personnel expense system and general expenses for the operation of the government office. However, general costs and travel expenses compiled through line-item budgeting were required to be compiled under a single project to the extent practically possible.

F. Link with Performance Management

Guidelines provided by the Ministry of Public Administration and Security required local governments to introduce program budgeting by explicitly linking it with performance management. Whether or not to connect program budgeting with the performance management of budgetary programs was, in principle, left up to the discretion of the relevant local government. However, by means of selecting pilot local governments and providing incentives and operation manuals to local governments, it was strongly recommended to do so. A system where performance plans and reports were utilized for monitoring purposes was promoted.

After preparing performance budget bills on a trial basis in 2010, all metropolitan governments prepared them in earnest in 2011. The performance budgeting system of *e-Hojo*, fully established in October 2010, served as a substructure for the preparation of performance budget bills. Twenty eight leading basic units of local government were selected to prepare 2011 performance budget bills. Furthermore, budget performance reports for the 2011 budget were prepared by metropolitan governments on a trial basis in 2011. Going one step further, an amendment of the Local Finance Act concerning performance management systems for program budgets is planned to be pursued by December 2012. If the amendment succeeds, the submission of performance budget bills and performance reports to the National Assembly will be mandatory beginning with 2014 budget bills.

As seen above, the program budgeting system is not well enough linked to performance management to be utilized in the decision-making process. The focus has so far been placed on developing the program budgeting structure by adding performance information for the sake of information disclosure, as well as on enhancing responsibility while establishing a system for annual planning and reporting.

G. Utilization of Program Budgeting

As in the case of the central government, local governments realized a program budgeting structure through a financial information management system in order to fully utilize the structure. This enables integrative real-time viewing of information on the compilation, execution, and settlement of budgets that correspond to program budgeting structures. However, rather than being organically integrated into the system of the central budget authorities, the local financial information management system was connected so as to only provide information in a selective manner.

A program budgeting structure is planned to be utilized for the purpose of monitoring and disclosing information through performance budget bills and reports. A scheme for the utilization of performance information connected to the program budgeting structure in budget compilation has yet to be developed by local governments, in contrast to the case of the central government. However, some local governments have benchmarked the Self-Assessment of Budgetary Programs feature and implemented a review process for the prioritization of budget projects on their own.

H. Impacts of Program Budgeting

The primary effect of a program budgeting system is that it enhances government budgetary transparency by classifying government budget according to policy goals. Here, ‘transparency’ means that stakeholders can easily grasp how government resources are being allocated. Of course, resource allocation refers to allocation to individual policy areas as it is not easy to disclose in detail down to the point where certain stakeholders become practically involved. Local governments in South Korea have attempted to make this possible by means of performance budget bills and reports.

A program budgeting system combined with performance information can enhance the performance management of budget projects. This indicates that it is possible to monitor and evaluate the progress of a project pursuing a certain policy target toward its goal. In particular, program budgeting structures can contribute to reducing performance management costs and enhancing its effectiveness by providing sub-structures for systemic and comprehensive performance management. In the case of local South Korean governments, unlike their central counterpart, a program budgeting structure has been developed first, based upon which performance information is currently under development. This is a standard approach that is desirable for not entailing a risk of triggered later inconsistency between systems of performance goals and program budgeting.

I. Conclusion and Implications

In the case of the South Korean government, it is too early to discuss and evaluate the effectiveness of the program budgeting system. Some issues still need to be considered, as pointed out by Lee Sang-yong and Lee Hyo (2008), because local governments are pursuing program budgeting in connection with performance management. It is deemed that the following problems are likely to occur again when a program budgeting system is introduced by public institutions in a similar way.

First, without a connection with another performance management system, program budgeting is operated in accordance with the guidelines (Manual for Operating Program Budget) prepared by the central government (Ministry of Public Administration and Security). Second, program costs are not adequately generated and utilized. Third, consensus has yet to be reached that autonomy on financial operations afforded to organizations and at the program unit level should be contingent upon responsibility. Fourth, performance indicators and targets have not been adequately determined in the program budget bills implemented to date and, arising from concerns over failure to meet targets, there have even been tendencies toward risk avoidance.

3 The Bank of Korea

A. Background of Introduction of Program Budgeting

Until 2010, the Bank of Korea (BOK) used conventional line-item budgeting. Under this system, expenditures are divided based on their nature rather than on the program area from which they occur. The BOK has introduced and implemented program budgeting since 2011 in order to operate their budgets based more on performance.

B. Status and Issues

Since its introduction of program budgeting, the BOK has included budget by program area, not line-item budgeting, in its budget bill. Its program budgeting structure consists of four levels: Sub-function, program, activity, and task. Program budgeting structure refers to a structure under which budget is listed in a hierarchical order according to a certain rule.

At the highest level of the BOK's program budgeting structure is sub-function, which classifies the programs and policies carried out by public institutions according to function. It serves as a basis upon which medium-term plans can be established and policies can be prioritized. Under a sub-function is a program, which is composed of activities, which are in turn comprised by tasks. Program, activity, and task serve as the basic units for resource allocation and may be connected to units for performance management. Under task are calculation basis and budgeting items. The calculation basis is provided for each task along with the relevant budgeting item selected by means of classifying expenditure details included in the calculation basis according to their nature. A budgeting item corresponds to "object" in line-item budgeting and is designed for the purpose of connectivity with line-item accounting. The introduction of program budgeting has allowed public institutions to employ a systematic hierarchy grounded in their functions and programs.

A total of eight sub-functions stand at the highest level of the BOK's program budgeting structure: Research and policy foreign exchange and international affairs financial stability and settlement note issuing management domestic branches—personnel expenses and reserve funds. Among them, six sub-functions—research and policy, foreign exchange and international affairs, financial stability and settlement, note issuing, management, and domestic branches—form the major programs performed by the bank. In contrast, technically speaking, personnel expenses and reserve funds pertain to costs involved in the implementation of major businesses. The total budget and the budget by program area in 2011 and 2012 are summarized in the table below. Budget for each sub-function and the total budget are included in the general provision of budget in a budget bill.

Personnel expenses for the eight program areas refer to the expenses included in the ceiling for personnel expenses of public institutions. Personnel expenses of public institutions are strictly regulated based on the guidelines for budget operation of public institutions. In particular, quota and actual personnel numbers, rank structure, and personnel expenses per rank are subject to intense regulation. The personnel expenses item in the BOK's program budget appears to reflect this nature of public institutions. Personnel expenses are not operated or allocated per organization or department of an institution, but instead classified based on their nature. Domestic or overseas wage and retirement benefits are examples of personnel expenses. Personnel expenses are then broken down further for each rank.

C. Utilization of Program Budgeting

The program budget bill of the BOK consists of a summary of program budget and program budget details. The summary of program budget summarizes budgets for each sub-function, program, activity, and task. Included in program budget details is the calculation basis for each task, which is shown with a budgeting item corresponding to the expenditure detail.

Since the introduction of program budgeting, the budget for each program, activity, and task in each of eight sub-functions has been provided in the budget summary. It can be seen in a comparison of the 2011 budget bill with the 2011 plan for the changes before and after the restructuring that presenting program budget-based changes in budget amount make it easier to connect budget and performance, thus paving the way to a certain extent for compiling the budget based on the results of performance evaluation. The presupposition for the introduction of performance-based budgeting is to compile budget on a program basis. That is to say, budget is expanded for those programs demonstrating positive performance while those with poor performance face reductions in their budget.

D. Impacts of Program Budgeting

It remains too early to discuss the effectiveness of program budgeting given the brief implementation period following the BOK's introduction of program budgeting in 2011. Program budgeting contains certain virtues on its own: It intimately connects the composition of a budget with the strategic goals of an institution; prevents waste of funds and allows for a rapid shift to performance-based budgeting. It has yet to become clear that those three strengths are realized in the BOK's program budgeting. Although the hierarchical structure of program budgeting is clearly defined, sub-functions at the top of budget structure are not meaningfully differentiated from the conventional business classification. In addition, its impacts such as budget waste reduction and diffusion of a performance-based system can be evaluated only after program budgeting has been well-established.

E. Conclusion and Implications

So far, the case of the introduction of program budgeting at the BOK has been reviewed. Although featuring only a short history of implementing program budgeting, the BOK is an institution where the hierarchical structure of budget is designed to be well compatible with the goals and intention of program budgeting. The hierarchical structure is clearly defined with sub-function, program, activity, and tasks. Tasks are shown with their calculation basis to provide rich budget information. This budget structure can be utilized as a best practice of program budgeting that other institutions can follow. The BOK case can be benchmarked since program budgeting has to be framed prior to its successful introduction. However, despite its reliable framework, the structure seems to lack in connectivity between program budgeting and a performance-based system featuring the establishment of institutional long-term strategic goals. To facilitate program budgeting, a plan needs to be developed to utilize program budgeting in the evaluation of performance and the establishment of institutional strategies in addition to formulating a framework for a budget system.

4 Incheon International Airport Corporation

A. Background of Introduction of Program Budgeting

Concerns over a possible decrease in air transportation demand accompanied by a rapidly changing management environment motivated the Incheon International Airport Corporation (IIAC) to adopt program budgeting. With demand for air traffic declining due to rising oil prices and the global economic downturn arising from the 2008 global financial crisis, the IIAC found itself in need of devising plans regarding a strategic management system. In other words, there emerged a demand for the establishment of a strategic management system based on a long-term vision to sustain growth and maximize company value amid a management environment in flux. As a component of efforts to advance resource management based on strategies and performance, it adopted program budgeting in the expectation that it would facilitate the formulation of business-oriented budgets based on performance goals and the sensible allocation of resources required for achieving performance goals. Thanks to the introduction of program budgeting, the IIAC has gained a management system that enables it to respond in a timely fashion to an evolving management environment through strategic resource allocation based on tactical priorities and performance management.

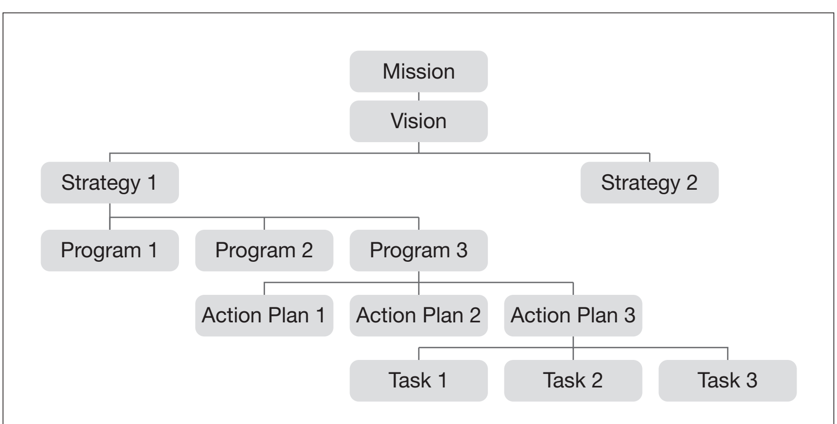
In 2008, the IIAC determined to introduce performance-based budgeting and entrusted the budget system improvement effort to an outside agency. Consequently, program budgeting was launched in earnest in 2009. From 2009 to 2010, requirements for the program budgeting system were reflected in the process innovation (PI) phase for introduction of enterprise resource planning (ERP) in order to computerize program budgeting. As a result, it completed computerization of program budgeting through the operation of SAP ERP in 2011.

B. Scope of Introduction

The IIAC implements a program budgeting system both for budgets and settlement of accounts. It was introduced first to budgeting in 2008, and then to the closing of accounts in the last half of 2011 through a detailed separation of the ERP PI process. Sales are broadly divided between aeronautical revenues and non-aeronautical revenues and then divided further as needed by IIAC. Expenses also are classified according to task, commitment item, and department.

C. Program Classification

[Figure V-3] Hierarchy of Program Budget



Source: 2012 Budget bill of Incheon International Airport Corporation

The businesses of IIAC are divided in the order of Mission and Vision, Strategy, Program, Action Plan, and Task. To begin, performance goals are set based on individual programs designed to pursue strategies. Action Plan, the subsequent step, refers to activities to achieve the performance goal of each program and is discovered and selected independently by each department without consideration of budget accounts. Prior to the introduction of program budgeting, tasks were classified and managed as major businesses depending on their scale. This can be considered a divergence from the current strategy-oriented program budgeting.

As for the status of program budgeting at the IIAC, there are four strategies and 14 programs in the 2012 budget bill, based on which a highly differentiated program budgeting system consisting of four strategies, 54 action plans, and 1,315 tasks is being operated with an approximately 1.3 trillion won budget.

D. Aligning Organization with Budget Classification

The IIAC aligns budget classification in program budgeting with its organizational classification. Each task unit is one-to-one matched to a corresponding division or group in order to affiliate organizational units with those of budget classification. A program can be connected with multiple departments, while tasks falling under a program are subdivided by department unit as a means to match each task one-to-one with the relevant department. This makes it possible to ascertain if an effort performed by any given department is connected to a relevant action plan and strategy, encouraging front offices to accept the alignment of budget with organizational classification.

E. Distribution of Joint Expenses

In the IIAC, joint department expenses are allocated according to a top-down approach based on "number of personnel." Current expenses managed by the Ministry of Strategy and Finance take up the largest share in the joint department expenses, and their amount is allocated through a top-down system based on the number of personnel in a department. Since current expenses having the nature of business expenses are managed as a separate task rather than as joint expenses, their amount is not remarkable, and therefore the standards for allocation of joint expenses are relatively simple.

F. Link with Performance Management

The IIAC requires departments to match each of their programs with key performance indicators (KPIs) in the department's program budget bill. For non-matched programs, it is obligatory to present the expected effects for each department and set a relevant KPI. Indicator selection guidelines have also been provided. First, the indicators selected should be easily and quickly measurable at any time. Second, they should be established in such a manner that a comparison is possible between both present and past performance of the program in question and with the related performance of other similar programs to allow utilization for budgeting. Lastly, it should be possible for all activities to be evaluated with performance indicators.

The IIAC utilizes performance plans submitted by departments for requesting budgets as key evaluation criteria for non-quantitative performance indicators, i.e., KPIs. Whether or not the business schedule and plan indicated in a performance plan are met serves as the criteria for evaluating qualitative performance indicators. Based on this, a system has been established where performance must be commensurate with budget execution.

Furthermore, whether or not KPIs are achieved serves as a criterion for budget preparation for the coming year. In principle, there is to be no increase in budget unaccompanied by a raise in KPI targets. In addition, multi-dimensional analysis on why KPI targets have not been achieved—whether a budget has not been executed or performance was simply inadequate—is utilized in budgeting for the next year.

G. Utilization of Program Budgeting

The establishment of a program budgeting system has enabled the IIAC to manage budget operation status on a real-time basis and establish a system designed to in advance prevent over-execution. Through the system, the IIAC is now able to view and monitor execution performance in terms of allocated budget. The results of budget execution are fed back into the next budgeting cycle along with information on whether or not a given target is achieved. In addition, income statements and other financial statements from each program and headquarters (department) are also utilized through their implementation in the system.

H. Impacts of Program Budgeting

With the introduction of performance-based budgeting, a Plan-Do-Check-Action (PDCA) system has been well-established at the IIAC. In addition, performance management difficulties experienced under the line-item budgeting system have been overcome and the connectivity of performance and budget is increasingly being enhanced through performance evaluation based on performance targets. The introduction of outcome-oriented budget operation has not only led to enhanced efficiency and transparency of budget operations, but also fed evaluation results on goals and their achievement back into institutional improvement, personnel affairs, organization, and budget. A virtuous cycle in the program implementation process has been established based on the enhanced planning function of program planning and budget. A virtuous process of program planning and budgeting is operated through which a program is completed in August, analysis and feedback of the business results is carried out from September to October, a business plan for the next year is established in October to November and a request for approval of the next year's business plan is sought in December.

In addition, the management system has been strengthened through alignment among strategy, budgeting and evaluation. With the establishment of the strategy-budget-evaluation configuration system, it becomes possible to establish an effective management system to determine what program budget is being channeled into what strategy, strategic task (program), and action plan. Furthermore, program budgeting has been materialized through a system that manages budget operation status on a real-time basis and prevents over-execution in advance.

I. Conclusion and Implications

Program budgeting as performed by the IIAC represents an ideal performance management system where strategy, budget, and performance are intertwined. Details of focused resource allocation are easily identified, since strategy and budget are connected and departments are matched with an activity or a task on a one-to-one basis. In addition, thanks to performance-oriented budget management, the efficiency of budget operation has been enhanced and the sense of responsibility shared among organization members reinforced. This case of the realization of program budgeting at the IIAC can be considered exemplary in that it enables real-time management of budget execution and tracks the progression toward a given strategy.

However, it appears difficult to apply the case of the IIAC to all public institutions due to the high costs involved. Indeed, while it is ideal to realize the strategy-budget-evaluation process within a system for real-time management, the costs for designing and establishing the system are excessive, preventing the full range of public institutions from benchmarking the case. It is desirable to devise a plan to connect strategy, budget and evaluation while keeping implementation of the system optional.

5 Jeju Free International City Development Center

A. Background of Introduction of Program Budgeting

The Jeju Free International City Development Center (JDC) is a quasi-market based public corporation established under the Ministry of Land, Transport and Maritime Affairs to develop Jeju Special Self-

Governing Province as a free international city. Founded by the Special Act on Jeju Free International City in 2002, the JDC mainly conducts development projects such as the preparation of an industrial complex, investment attraction and promotion activities, and profit-making businesses such as duty-free shops and outdoor advertisement projects to raise funds, all intended to accelerate the development of Jeju Free International City.

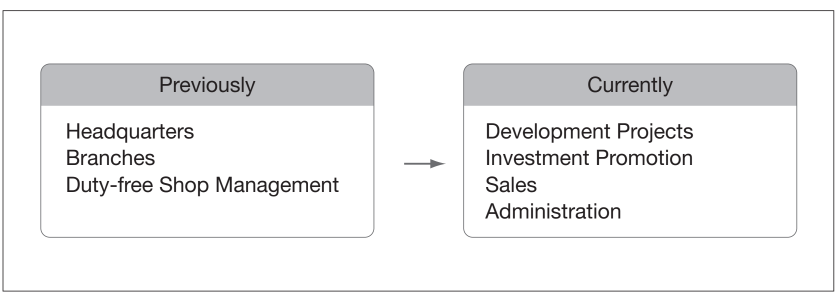
More intensive cost management is required for the JDC since by its nature it has a clearly-defined program classification and needs to carry out sales based on phased development. As it finances development projects through income generated through profit-making businesses such as the operation of duty-free shops, separate accounting is also called for by which profit-making and non-profit business can be divided in order to utilize a fund reservation system for its essential business as a non-profit corporation (or non-capital special corporation). In addition the department implementing a particular program needs to take responsibility not only for the program itself, but also increasingly for the budgeting as the program progresses. Therefore, from its establishment in 2002, the JDC began to compile its budget by dividing profit-making and essential business and organized its budget on a project basis as prescribed in the Special Act on Jeju Free International City. It converted its bookkeeping methods from single- to double-entry and established a budgeting system for identifying the output details of each program in 2004. Later, it continued to carry out a process of aligning bookkeeping accounts with budget expenditure accounts and established program budgeting in 2007 in its current form. However, since joint expenses were difficult to allocate by program, the issue emerged that they could not be included when compiling a budget for each program. In 2012, Enterprise Resource Planning (ERP) was established based on information and technology. The ERP currently under development was introduced not only to efficiently manage resources such as budgets, finance, contracts, and personnel affairs, but also to resolve the issue of difficulties in the allocation of joint expenses arising from lack of a cost management system. The establishment of the ERP system resolved the pending issue of joint expense allocation by utilizing a financial system allowing for more accurate cost management.

While the accounting system of the JDC is operated on an accrual basis, program budgeting is prepared on a cash basis including certain elements of an accrual basis. For example, depreciation expenses are reflected for each program to be utilized in cost estimation on a program basis while retirement provisions and other items not shown on the current cash flow are not reflected in program budgeting.

B. Scope of Introduction and Program Classification

The JDC applies separate accounting to budgeting and closing of accounts through its ERP financial system and makes use of program budgeting. The JDC divides and manages its businesses by means of four sub-functions based on their organizational system and functions: Investment, development, management, and sales.

[Figure V-4] Budget Classification of Jeju Free International City Development Center



Source: Development Plan for 2004 Budget Accounting System of Jeju Free International City Development Center

With its introduction of separate accounting in 2004, the JDC established a system by which departments and sub-functions are managed on an individual basis. Specifically, development projects are subdivided into key and follow-up projects. Investment promotion is managed separately but, in consideration of connectivity with key projects, is later allocated to relevant projects. Duty-free shop management and administration are focused on profit management based on the Korea

Financial Accounting Standards. According to the 2013 Budget Guidelines, the program structure in the JDC's program budgeting is comprised of sub-function, project, and task with four sub-functions and 15 projects.

The development department and the support department take different approaches to compiling segment budgets and managing their actual execution, the former on a development project basis and the latter on a department or a task basis. As for settlement of accounts, assets are differentiated for each development project, while incidental expenses in the nature of joint expenses are accounted as expenses. This problem will be addressed with the introduction of ERP in 2012.

C. Aligning Organization with Budget Classification

The JDC is comprised of three headquarters, one project team, and the Seoul office, as seen below. In order to match its organization with budget classification, the JDC is structured according to functions such as management planning, development and investment, and duty-free shop management. Program budgeting at the JDC is characterized by its responsible budget center system, where a budget management center is designated for each task. For instance, a budget management center is assigned to the individual tasks of a management administration project and, likewise, each task of an investment or development project has its own budget management center.

Development and support departments compile their budgets on different bases: By unit of development project and organization, respectively. However, the budget for personnel expenses and education expenses with the nature of joint expenses at the JDC level are collectively managed by the host department. In the Development and Management Division dedicated to the management of construction projects, a budget is compiled for each development project while department expenses are separately compiled under a standalone program called "process management." As seen in the table below, sub-functions for budget, methods for income and capital budgeting and relevant departments are clearly separated and aligned.

While one organization may be matched with one project, as in the case of support departments, a single department can be responsible for multiple tasks and, for the investment and development sub-functions, a single department can be responsible for multiple projects, resulting in inaccurate alignment of budget unit programs with organization. In the investment and development sub-function, however, one project is managed exclusively by a single department, making the locus of responsibility for project performance clear. Even if one department carries out multiple projects, budget is compiled and managed on a per-project basis.

D. Distribution of Joint Expenses

Even with the introduction of separate accounting system in 2004, the issue of distribution of joint expenses remains unresolved. With the full introduction of ERP in 2012, it has become possible to provide accurate project development costs on a real-time basis utilizing a Work Breakdown Structure (WBS)[8] and distribute joint expenses to each program and organization. The issue involving distribution of joint expenses was the greatest challenge faced in establishing the ERP system, taking approximately one year to apply to the entire system, two months for a review of the distribution issue of joint expenses and six months for system establishment. In principle, the distribution of joint expenses is based on the expense ratio of each organization or the accumulated number of personnel. More specifically, joint expenses are distributed based on the number of people taking part in a project or automatically distributed throughout the system according to relevant program code. However, since the distribution of joint expenses was introduced in earnest in 2012, the distribution approach requires additional review and the impact of actual distribution on the department to which costs are attributed will be examined in the semi-annual closing of accounts for 2012.

8) Work Breakdown Structure (WBS): A diagram of a hierarchical structure where the scope and deliverables of a project are divided into detailed elements

E. Link with Performance Management

The JDC has expressed a strong will to pursue performance-based budgeting in its budgeting system. Program budgeting is connected to performance management in three ways. First, according to the *2013 Budget (bill) Preparation Guidelines*, budget will be compiled in connection with medium-term plans. More specifically, it requires the re-examination of annual investment and divestment connected to strategic medium-term plans and review of business priorities. Second, performance indicators for each activity need to be provided in budget compilation in order for them to be connected with management plans. When compiling a budget for each program, performance goals and indicators are to be established on a task basis, and when a performance goal encompasses two or more tasks, it will be collectively prepared. The performance goals for each program are linked with those of each department and they, once provided, are to be utilized as internal performance indicators. Each department will prepare a table such as the example below when compiling a budget in order to link the strategy and performance goals of the overall institution with its task, and establish specific performance goals and commitment items for each task.

<Table V-1> Composition of Performance Goals and Indicators for Business Plans of Jeju Free International City Development Center

Classification		Task	Commitment item	2013 Budget (bill)
Performance goal I	Performance indicator 1	Task 1	Commitment item 1	
		Task 2	Commitment item 2	
			Commitment item 3	
		Subtotal		
	Performance indicator 2	Task 1	Commitment item 4	
			Commitment item 5	
		Task 2	Commitment item 6	
		Subtotal		
	Total for performance goal I			
Performance goal II	Performance indicator 3	Task 1	Commitment item 1	
			Commitment item 2	
		Task 2	Commitment item 3	
			Subtotal	
	Performance indicator 4	Task 1	Commitment item 4	
		Task 2	Commitment item 5	
			Commitment item 6	
	Total for performance goal II			
Grand total				

Source: Jeju Free International City Development Center, *2013 Budget (bill) Preparation Guideline*

Third, internal performance indicators have been established for income budgets complied in the manner discussed above, as well as for budget execution in program budgeting, in order to evaluate the efficiency of budget management. In order to encourage responsible budget management by organizations and departments within the institution, the degree of reduction in budgets with the nature of expenses, reduction of carried-over budget, early execution of finance, and accuracy of budget execution have been selected as the common performance indicators for the organization based upon which internal performance evaluation is to be performed.

In addition, performance evaluation at the institution will be reflected in budgeting for the following year. In other words, based on the results of the internal performance evaluation of departments, incidental expenses, investment inducement costs, and business development costs are differently allocated. Since the JDC has been actively linking program budgeting with performance management as discussed so far, it is reasonable to assert that it has operated performance-based budgeting in a real sense.

F. Utilization of Program Budgeting and Its Impacts

Due to internal needs, program budgeting has been used at the JDC since immediately after its inception and has been well established through continuous improvement. It has evolved from its initial form where businesses were simply classified until reaching its current form as performance-based budgeting utilizing budget to the fullest in performance management.

The introduction of program budgeting has resulted in a variety of positive impacts on the institution. First of all, it has prevented indiscrete budget execution, motivating departments to operate their budget in a responsible manner. Details regarding the budgets allocated to each department and their calculation bases are not explicitly presented in line-item budgeting. Under program budgeting, however, it becomes transparent how much the calculation bases for budget compilation are reasonable, whether or not the budget is executed as planned and what outcome the execution of budget has brought about. In short, the foremost effect of program budgeting is the enjoyment of considerably enhanced budgetary transparency. Furthermore, it also has yielded a tangible effect in that it allows for strategic resource allocation toward the achievement of institutional goals by creating transparency regarding the major strategies, businesses, and resource allocation of the institution.

In addition, program budgeting also has positively contributed to budget reduction at the institution by including budget reduction indicators into the performance indicators of each department through program budgeting. As a ten percent reduction in budget related to administrative expenses was included in the common indicators for all departments and any department failing to achieve this goal cannot be positively evaluated, program budgeting is utilized as an effective method for budget management across the entire institution.

In addition to program budgeting, the JDC has developed and utilized an ERP financial accounting system which supports the advanced utilization of the budgeting scheme. Thanks to the ERP system, a means of analyzing costs in detail on a monthly basis has been established, allowing for a rapid closing of accounts within two days of the generation of financial results and providing a detailed analysis of information on development projects and duty-free shop management for decision-making. It has also made it possible to establish and operate a budget management system that allows for effective execution analysis and feedback by managing budget compilation history and streamlining the budget operation system. In addition, it has allowed the real-time cost management of individual programs by providing accurate project costs on a real-time basis through the WBS and establishing an integrative system for business cost management with an improved asset-substitution process.

G. Conclusion and Implications

The most prominent feature of program budgeting at the JDC is that it has independently established a budgeting system that best suits its characteristics. Due to the nature of its business the JDC introduced a planning-programming budgeting system immediately upon its foundation, along with separate accounting for cost estimation for each program in order to manage costs by dividing them further according to sub-function and department. Since then, it has developed its program budgeting through continual improvement efforts and, more recently, introduced an ERP system to integrate its budgeting and accounting systems, realizing an advanced program budgeting system for the systematic management of performance on a real-time basis. Through this process, the JDC has benchmarked the program budgeting and ERP systems operated by selected public institutions, addressed their setbacks and finally succeeded in establishing a system suited to its own purposes.

The reason the JDC adopted program budgeting upon its foundation lies in nature of its businesses necessitating the separate management of individual programs. This nature of its business is well reflected in current program budgeting. Program budgeting has made it possible to monitor the budget allocation and progression of each program and transparently manage its profits or losses and costs. In addition, through a separate accounting system introduced in 2004, budget and accounting has been managed in a systematic manner. The improvement efforts for the JDC's program budgeting have been oriented toward aligning budgeting and bookkeeping accounts. The better budgeting accounts are aligned with those of bookkeeping, the fewer efforts are needed for budgeting and the closing of accounts.

VI

Plans for Introducing Program Budgeting to Public Institutions

1 Improvement Plans to Address Issues in the Budgeting Systems of Public Institutions

Issues of program budgeting among public institutions as identified so far based on the status of their program budgeting and budget bills can be summarized as follows. Broadly speaking, issues with the budgeting systems at public institutions include inadequate transparency, lack in information on budget execution and its effectiveness, separation of budget and performance management, and poor standardization of budget bills. Each issue and a related plan for improvement are summarized in the table below.

The budgets of public institutions and their improvement plans as described in the table below can be summarized as follows: From a short-term perspective, a public institution is required to provide more-detailed information on their budgets—that is, budget information classified based on programs that an institution conducts and the amount of support funds financed by the government, which will contribute to enhancing the budgetary transparency and responsibility of public institutions. In addition, an expansion of disclosure of budget information by using common forms it is needed to standardize budget information at public institutions subject to disclosure. From a long-term perspective, it is desirable for performance information on budget execution at public institutions to be generated and a separate accounting system for the separate management of the accounting of each program and program budgeting to be introduced in order to manage the budgeting and performance of public institutions in an integrated manner.

<Table VI-1> Issues in Public Institution Budgeting and Related Improvement Plans

Budgetary Issues at Public Institutions		Improvement Plans
Inadequate transparency	- Most public institutions have adopted a line-item budgeting system, making it difficult to identify the distribution and expenditure of budget on a program basis - It is difficult to distinguish between governmental support funds and the self-generated revenue of each program - Line-item budgeting systems are being used with program budgeting systems, while program budgeting is utilized with a variety of levels and approaches, hindering the understanding of the budgets of public institutions - Evidencing data for budget calculation is inadequate, making it difficult to verify the rationality of budget composition - Budget is not separated between proper-purpose business and profit-making business	- Expand disclosure of information on budgeting - Specifically present budget details on revenue and expenditure for each program - Provide budget information by separating purpose-programs from profit-generating ones - Present the detailed basis of budget calculation - Introduce a separate accounting system
Effectiveness of budget	- Inadequate information as to whether or not a budget has been executed as planned and intended outcomes achieved	- Rather than providing status of budget execution on the ALIO system as currently done, it is necessary to report how much budget has been expended on each program in order to ascertain its budget execution rate - Report budget spending in connection with business outcome

<Table VI-1> Continue

Budgetary Issues at Public Institutions Improvement Plans		
Separation of budget management from performance management	- Budget is not managed in a systematic manner - Performance management is applied to some key projects at public institutions as part of management evaluation	- An institution's performance needs to be evaluated by examining information on both the businesses and budgets of public institutions
Need for standardization of budget bills	- Since forms of budget bills have not been standardized, institutions submit them in arbitrar y formats, making it difficult to understand and compare them among institutions	- Standardized forms for the revenue and expenditure details of budget bills of each program need to be provided

2 Short-term Improvement Plans: Preparing Revenue and Expenditure Details of Respective Programs

One of the short-term measures to address the above problems faced by public institutions is to include budget details for each program in the existing budget bill. Therefore, this study is pursuing measures to for the provision of revenue and expenditure details in the existing budget bill submitted to the government. At present, the goal is for programs at public institutions that are differently classified in business plans, settlement statements, and management evaluation being required to be classified according to a sub-function (program) task structure while revenue and expenditure details of each institution are classified and prepared on a program basis. In order for public institutions to provide specific information regarding key projects on which budget is spent, the details and characteristics of overall revenue and expenditure need to be described and an outline of each program should be included in revenue and expenditure details. Governmental subsidiaries and public institutions' own resources should be separated in revenue and expenditure details. In order to facilitate the utilization of this information, the following classification criteria were used: Revenue divided into direct government support (contributions, subsidies, charges, and transfer revenue), indirect governmental support (business operating revenue and revenue from commissioned or monopolized businesses), other business-operating revenue, non-operating revenue, investments, loans, and others and expenditure divided into personnel expenses, ordinary operating expense expenses, operating expenses, debt payment, and others. Public institutions subject to the preparation of these revenue and expenditure details for each program include those that should submit budget bills to the government, all quasi-governmental institutions, and other important public institutions with substantial budgets.

<Table VI-2> Institutions Obliged to Prepare a Detailed Budget Bill for Each Program (proposed)

Relevant Public Institutions (122 in total)	
Public institutions (28 in total)	
Quasi-governmental institutions (83)	
Other public institutions (11)	Korea Exim Bank, Korea Investment Corporation, Seoul National University Hospital, Korea Foundation, Korea Council of Sport for All, Kangwon Land, National Cancer Center, Korea Construction Management Corporation, National Research Council for Economics, Humanities and Social Sciences, Korea Finance Corporation, and Korea Development Institute

The revenue and expenditure plan (proposed) for fiscal year 2013 is broadly comprised of details regarding the overall revenue and expenditures at both the institutional and program level. Included in the overall revenue and expenditure details are a summary of the revenue and expenditure plans (proposed), a summary table of revenue and expenditures, a plan for revenue from net governmental support (financial support and other forms), a plan for self-generating revenue based on the classification of types of public institutions. In addition, a form has been prepared to summarize the details of each program in order to provide an overview of the program budgets of an institution. Therefore, a summary table of revenue by program, a summary table of expenditure by program and a statement of expenditure programs need to be included in a revenue and expenditure plan by program (proposed). A summary table of expenditure by program should include all expenditure details for each sub-function (program–activity–task) while a statement of expenditure by program shall contain a classification of programs, amount of budget and settlement of accounts, objectives and contents (period, total operating costs, and size of a program, condition for support, and managing entity), reasons for support and background of implementation.

Detailed statements of revenues and expenditures by program prepared by public institutions are expected to address the issues concerning the budgeting system of public institutions to a great degree. In particular, the demand for enhanced budgetary transparency and responsibility by public institutions will be considerably satisfied. Its applicability to institutions has been identified through pilot tests at each institution in the process of preparation of a detailed statement of revenue and expenditures of each program. Furthermore the issues and challenges facing institutions when they prepare revenue and expenditure details by program have been identified by collecting opinions from all related institutions. As a result, it has been found that some institutions experience difficulties generating detailed IT information on each program or classifying their programs, necessitating the introduction and application of system that reflects the characteristics of respective each institution.

3 Long-term Improvement Plans: Instruction Plans for Program Budgeting

As discussed in the previous chapter, it is highly desirable to include a detailed statement of revenue and expenditure for each program in the budget bills of public institutions, since meeting the demand for disclosure of detailed budget information can thus be combined with enhancing both budgetary transparency and responsibility. In addition, the obligation to prepare such details is likely to motivate public institutions to manage their budgets in a more systematic fashion. However, as described earlier, in order to determine if the budgets of public institutions are being efficiently utilized to serve their objectives and to manage the performance and budgets of their programs in an integrative manner, it seems more desirable, from a long-term perspective, that budgeting and accounting systems be changed. Given that the central and local governments have already introduced program budgeting and most public institutions are operated through national financing, the management of their budget and accounts at the individual project level is a required change for the long-term. However, it is inappropriate to introduce a uniform type of program budgeting and separate accounting systems at a single time to public institutions that differ significantly in terms of size and industry, business structure, and type of pursuit—public good or profitability. Furthermore, program budgeting system should be introduced in a gradual and differentiated manner by considering the need for and the effectiveness of the introduction and the characteristics of the relevant public institutions.

A. Principles of Introducing Program Budgeting and Applicable Institutions

Although deemed necessary from a long-term perspective, program budgeting should be differentially introduced by considering how and to what institutions it should be introduced. First of all, it needs to be clearly identified to which institutions with what objectives program budgeting should be introduced, along with which institutions most require program budgeting and will enjoy the greatest effects. This is because those institutions that are too small in size or carry out only a single program cannot expect dramatic practical benefits from the introduction of program budgeting.

<Table VI-3> Criteria for Introducing Program Budgeting and Applicable Public Institutions

Criteria for introducing program budgeting	Applicable institutions
Enhancing budgetary transparency and responsibility	• Institutions with large-scale budgets and • Institutions receiving government subsidies institutions carrying out commissioned services with government funds or subsidies; government-funded institutions
Reinforcing performance management	• Key public institutions requiring performance management
Strengthening financial soundness	• Institutions whose debt is large in scale or rapidly increasing
Ease of introducing program budgeting	• Institutions that have already implemented program at a high level

B. Method of Introducing Program Budgeting

A program budgeting system needs to be introduced in a phased manner. Given the administrative costs and time required to introduce it, it is desirable to do so first among those institutions that need it most and can introduce it with the greatest facility, rather than implementing it simultaneously among all institutions. According to the analysis results of the survey administered to public institutions and the opinions drawn from it, program budgeting is widely used among those institutions that receive government financial support in the form of funds, subsidies, or contributions and are thus obliged to adopt separate accounting. Since it is important for these institutions to demonstrate the budgetary connection between the government and the outcome of the governmental support, they should be at a higher priority for introduction of program budgeting. However, for large-scale public institutions with a higher proportion of self-earned income, it is common for them to have not introduced program budgeting or separate accounting systems and experience difficulties in disclosing detailed budget information due to reasons including protecting trade secrets. Therefore, as far as these institutions are concerned, it appears more conducive to introduce program budgeting gradually, for example after undertaking pilot projects.

What matters most in introducing a program budgeting system is the determination of at which level it should be introduced. As indicated in the aforementioned survey of public institutions, classifying major programs in a simple manner and then providing information on the budget of the classified programs already appears to be easy to achieve by making it obligatory to prepare and disclose the revenue and expenditure details of each program proposed as a short-term alternative. Therefore, the most important aspect for the future introduction of a program budgeting system is the process by which the business areas of an institution that have been separated into programs and activities are connected and integrated with performance management. As for public institutions, performance evaluation and management have already been implemented through management evaluation, but independently of their budget. However, the overall performance management system—by which an institution has selected key programs to serve its missions, long-term strategies, and objectives and managed its performance—has been matured by means of a separate pathway. Therefore, a process is called for through which those programs that have been classified and carried out by public institutions independently of a program budgeting system and relevant performance management system can be integrated within a program budgeting system.

VII

General Conclusion and Policy Implications

Public institutions are growing ever-more important and taking up a greater share of the South Korean economy. In addition, they are receiving an increasing volume of financial support from the government. In particular, the liabilities of public institutions have recently been rapidly on the rise both in terms of scale and rate of increase, drawing consistently greater attention to their financial management. When compared with the settlement of accounts at public institutions, which is strictly reviewed and examined, their budgets are reviewed mainly based on *ex post facto* reports out of respect for their autonomy and are not managed in a systematic manner. In particular, there have been issues raised regarding the budgeting systems at public institutions, such as inadequate transparency regarding budget information, lack of information on the execution and effectiveness of budgets, a gap between budget and performance management and a lack of standardization of budget bills.

The line-item budgeting system commonly used by most public institutions is effective in that the budget can be managed by the spending institution, but it makes it difficult to clearly identify the budget of public institutions. Therefore, an improvement plan is required in order to reinforce budget management and enhance the budgetary transparency of public institutions. The South Korean government is pursuing the introduction of program budgeting to public institutions on a trial basis in an effort to improve their budget management. Program budgeting, under which budget is allocated by program as opposed to the existing budgeting performed on an expense-item basis, has been introduced and utilized in South Korea as a "performance-based budgeting system" or "planning-programming budgeting system." In South Korea, a program budgeting system was introduced in 2003 for central ministries and their affiliates under the name of "performance-based budgeting system" and, in the wake of pilot programs carried out in 2005, it began to be adopted by 50 local governments, including all metropolitan governments, in 2008.

This study aims to suggest an improvement plan for the budgeting systems of public institutions by analyzing their status and issues. In particular, in order to determine this plan, the program budgeting system introduced and used by the central and local governments was intensively reviewed. For this purpose, this study identified the status of introduction and utilization of program budgeting systems at public institutions by collecting and analyzing data on the status of budgeting systems and the introduction of a program budgeting system at public institutions while analyzing the issues and implications inherent in the introduction and operation of program budgeting systems through case studies of those governments and public institutions that have already introduced and been utilizing such systems.

The study on the status of the budgeting system in public institutions indicates that a considerable number of institutions have already independently introduced and utilized program budgeting systems. However, there are significant discrepancies among program budgeting systems introduced by public institutions in terms of motive of introduction and level of application. Those public institutions that receive government financial support are obliged to provide separate accounting systems or program budgeting under outside laws or obligatory accounting provisions, while a number of other public institutions have voluntarily introduced a program budgeting system to suit their respective needs. As for the structure by which projects are divided for the introduction of program budgeting, some institutions use a simple classification (either fundamental or profit-making businesses) according to their nature, while others apply a systematic classification consisting of function, sub-function, program and activity, similar to the performance-based budgeting system used by governments. However, according to the analysis of the level of program budgeting system implementation performed through analyzing budget bills of those institutions that responded as having introduced such a system, few institutions are seen to be utilizing systematic program classification with performance management by connecting them in a methodical manner. The survey results also showed that most institutions use a program budgeting system blended with a separate accounting system.

A conclusion may be drawn from the analysis above regarding the introduction of program budgeting by public institutions: It seems undesirable to simultaneously introduce a program budgeting system to all public institutions in an effort to improve their budgeting system and financial management. In order to implement a program budgeting system at public institutions, the current status of their budget management and the characteristics of their work, financial structures, and businesses should first be sufficiently reviewed. In addition, the costs and effectiveness resulting from the introduction of program budgeting systems will differ considerably among public institutions depending on the level and utilization method of the program budgeting system to be introduced. Therefore, prior to introducing the system to an institution, it is also necessary to consider the costs and eventual effectiveness involved in the introduction of a program budgeting system based on its characteristics. In order to improve the budgetary transparency of public institutions and enhance their responsibility and performance management, it is advisable to seek a more effective approach with the individual natures of public institutions and their budgeting systems taken as the baseline.

The analysis of the status and issues of the budgeting systems of public institutions suggests that more detailed information on the budgets of public institutions be disclosed in order to improve the system. Specifically, budgetary transparency and responsibility at public institutions will be improved by classifying budget information according to the programs carried out by a public institution and clearly stating the amount of government financial support involved. In addition, in order to expand the disclosure of budget information, there is a need to standardize budget information through a common form detailing the information required to be disclosed. From a long-term perspective, it is desirable for public institutions to introduce program budgeting and separate accounting, under which an institution's accounting is performed on a program basis, so as to allow them to produce performance data on their budget execution and manage their budget and performance in an integrative manner.

One of the short-term solutions to improve the issues regarding public institutions raised above is to include budget details by program in existing budget bills. Therefore, this study sought a measure to additionally provide details of revenue and expenditure by program and add it to the existing budget bills for submission to the government. This paper suggested a measure for classifying a public institution's programs, which have been differently classified in business plans, settlement statements, and management evaluation, by using the structure of sub-function, program, and task, and to prepare the revenue and expenditure details of an institution by program. Based on opinions collected from public institutions and the results of trial-basis applications, this paper also suggested a measure to allow detailed statements of revenues and expenditures by program to be additionally prepared and included in 2013 budget bills.

As discussed in the previous chapter, it is highly desirable to include a detailed statement of revenue and expenditure for each program in the budget bills of public institutions, since meeting the demand for disclosure of detailed budget information can thus be combined with enhancing both budgetary transparency and responsibility. In addition, the obligation to prepare such details is likely to motivate public institutions to manage their budgets in a more systematic fashion. However, as described earlier, in order to determine if the budgets of public institutions are being efficiently utilized to serve their objectives and to manage the performance and budgets of their programs in an integrative manner, it seems more desirable, from a long-term perspective, that budgeting and accounting systems be changed. Given that the central and local governments have already introduced program budgeting and most public institutions are operated through national financing, the management of their budget and accounts at the individual project level is a required change for the long-term. However, it is inappropriate to introduce a uniform type of program budgeting and separate accounting systems at a single time to public institutions that differ significantly in terms of size and industry, business structure, and type of pursuit—public good or profitability. Furthermore, program budgeting system should be introduced in a gradual and differentiated manner by considering the need for and the effectiveness of the introduction and the characteristics of the relevant public institutions.

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