Main Issues of Sectoral Reallocation in Korea

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1. Current State of Resource Allocation in Korea

1.1 Total Size of Spending

The total spending of the general government is small in Korea when compared with those in advanced countries. According to Table 1, the total expenditure amounted to 23.0 percent of GDP in Korea in 2000, while the expenditure to GDP ratio ranges from 30 to 50 percent in other countries. But when income transfers are excluded, the ratio declines to 19.4 percent in Korea and 20 to 30 percent in other countries. In particular, the U.S has a lower ratio than Korea. With increased pension payments in Korea, the gap between Korea and other countries will diminish in the future.[1)]

Table 1. General Government Expenditure

(% of GDP)

	U.S	Japan	Germany	France	U.K	Korea
Consumption	15.1	16.8	19.0	23.3	19.4	10.1
Net capital outlays	0.9	6.0	3.0	3.3	2.2	8.3
Income transfers	13.7	10.0	18.9	17.8	13.7	3.6
Subsidies	0.5	0.9	1.6	1.2	0.5	0.3
Interest payments	3.4	3.3	3.3	3.2	2.4	0.7
Total	31.2	37.0	45.7	48.8	38.2	23.0
(Excluding income transfers)	(17.5)	(27.0)	(26.8)	(31.0)	(24.5)	(19.4)

Note: The data for Japan and Korea refer to year 2000. Others refer to year 2001.
Source: OECD, *OECD Economic Surveys: Korea*, Volume 2003/5-March.

1.2 Historical Trends in Sectoral Allocation

Table 2 shows the functional classification of the central government expenditure and net lending in Korea. A notable feature is the consistently high proportion of the *economic affairs* since the 1970s, which has taken up around 25 percent of total spending and corresponded to 4-6 percent of GDP. Among the economic affairs, two items – *agriculture, forestry, fishing, and hunting* and *transport and communication* – have had particularly large shares. The share of the

[1)] It is interesting to note the relatively small size of government consumption in Korea. It stands at 10 percent of GDP. This seems mainly due to the small public sector employment in Korea. On the other hand, government investment as a percentage of GDP is larger in Korea than in other countries except Japan.

former has been around 10 percent of total spending, and that of the latter has been between 6 and 10 percent.

The next largest items are *defense*, reflecting the geopolitical characteristic of Korea, and *education*, because the central government instead of local governments assumes the main responsibility for its financing. On the other hand, *health* accounts for a very small part of total spending since the National Health Insurance is excluded from the central government expenditure in current statistical practices. The share of *social protection* is also very small, but will increase in the future as the National Pension Fund starts to pay out pension benefits in full scale in 2008 and various public assistance programs expand their coverage.

Table 2. Trends of the Central Government Expenditure and Net Lending in Korea

	% of total spending					% of GDP				
	1970	1980	1990	1995	2000	1970	1980	1990	1995	2000
General public services	23.1	4.0	4.2	4.2	5.2	4.0	0.8	0.8	0.8	1.3
Defense	22.7	30.6	20.0	15.7	11.4	3.9	6.2	3.7	2.9	2.8
Public order and safety	-	4.6	4.3	5.5	4.6	0.0	0.9	0.8	1.0	1.1
Education	16.7	14.6	17.0	18.0	15.3	2.9	3.0	3.2	3.4	3.7
Health	1.3	1.0	1.7	0.7	0.7	0.2	0.2	0.3	0.1	0.2
Social protection	4.9	5.7	8.1	9.0	15.3	0.8	1.2	1.5	1.7	3.7
Housing and community amenities	0.3	2.5	10.1	8.0	5.3	0.0	0.5	1.9	1.5	1.3
Recreation, culture, and religion	1.4	0.7	0.5	0.6	0.8	0.2	0.1	0.1	0.1	0.2
Economic affairs	27.4	26.0	20.4	24.9	25.2	4.7	5.3	3.8	4.7	6.1
Fuel and energy	3.8	2.1	0.6	0.7	0.7	0.6	0.4	0.1	0.1	0.2
Agriculture, forestry, fishing, and hunting	11.2	5.9	10.2	11.2	6.2	1.9	1.2	1.9	2.1	1.5
Mining, manufacturing, and construction	3.0	7.4	2.0	2.7	2.6	-0.5	1.5	0.4	0.5	0.6
Transportation and communication	7.9	6.7	6.1	8.5	9.9	1.4	1.4	1.1	1.6	2.4
Other economic affairs	7.5	3.9	1.4	1.7	5.8	1.3	0.8	0.3	0.3	1.4
Other expenditures	2.2	10.4	13.7	13.4	16.2	0.4	2.1	2.5	2.5	3.9
Total	100.0	100.0	100.0	100.0	100.0	17.2	20.3	18.6	18.8	24.3

Sources: Ministry of Finance and Economy and Bank of Korea.

1.3. Comparison with Advanced Countries

When comparing the sectoral allocation of spending across countries, one should take care to use the general government data because the central and local governments have different roles in different countries. For example, *public order and safety* and *education* are the

responsibility of the central government in Korea, while they are the responsibility of local governments in most of the advanced countries.

But it is very difficult to get data on the functional classification of the general government spending that are comparable across countries. Ideally, all countries should produce data on government spending based on the Classification of the Functions of Government (COFOG) prepared by the United Nations, but I could not collect these data except for Korea. The only available source was the *Government Finance Statistics Yearbook* (GFSY) published by IMF. GFSY reports the functional classification of spending by the central, state, and local governments for some countries. Unfortunately, it does not consolidate the spending by different levels of government, and hence does not report data on the general government.

Therefore, I tried an arbitrary consolidation of GFSY data, simply aggregating the spending by different levels of government for U.S., Germany, France, U.K., and Canada. This obviously has the potential to double-(or even triple-)count some of the spending. For example, when the central government provides educational grants to local governments, these can be counted as educational spending both at the level of central and local governments. Notwithstanding this danger, I report the results in Table 3.

Most of the characteristics noted above now appear peculiar to Korea when the latter is compared to other countries. Spending on economic affairs as proportion of GDP is around 6 percent in Korea but only 2-3 percent in U.S. and U.K. and around 5 percent in Germany, France, and Canada. In contrast, the combined spending on health and social protection amounts to only 4-5 percent of GDP in Korea, while the ratio is 20-40 percent in other countries. This is due to the immaturity of the national pension system and the small size of other welfare expenditure in Korea.

The spending pattern in advanced countries has changed little from the past. Economic growth in these countries resulted in nominal per-capita incomes of USD 10,000 around 1980 and USD 20,000 around 1990, and USD 30,000 around 1995 in U.S., Japan, and Germany. Table 4 shows the sectoral spending when the nominal per-capita income was USD 10,000, USD 20,000, and USD 30,000. Indeed, we cannot find drastic changes in sectoral spending in all countries. This implies that it may be more useful to compare the sectoral spending in a sample that contains both advanced and developing countries. I am conducting research along this line.

Table 3. Comparison of Sectoral Spending across Countries

(% of GDP)

	U.S.[1] (1999)	Germany[1] (1996)	France[1] (1993)	U.K.[1] (1998)	Canada[1] (2000)	Korea[2] (2000)	Korea[2] (2001)	Korea[1] (2000)
General public services	2.6	2.4	4.0	1.9	2.3	2.4	2.5	1.3
Defense	2.9	1.3	2.5	2.7	1.1	2.8	2.7	2.8
Public order and safety	1.7	1.5	0.8	2.5	2.1	1.4	1.6	1.1
Education	7.3	4.4	5.2	4.5	8.3	4.0	4.4	3.7
Health	6.9	8.8	10.2	5.6	6.7	0.3	0.3	0.2
Social protection	8.0	21.5	19.7	16.7	12.9	4.2	4.9	3.7
Housing and community amenities	0.8	2.1	2.9	1.4	1.0	1.5	1.5	1.3
Recreation, culture, and religion	0.4	0.8	1.0	0.5	1.0	0.6	0.6	0.2
Economic affairs	2.9	5.4	4.6	2.2	4.4	5.6	6.4	6.1
Fuel and energy	0.0	0.1	0.5	0.0	0.3	0.2	0.2	0.2
Agriculture, forestry, fishing, and hunting	0.5	0.6	0.1	0.2	0.8	1.6	1.9	1.5
Mining, manufacturing, and construction	0.0	0.4	0.1	0.1	0.0	0.5	0.7	0.6
Transport and communication	1.8	2.4	0.8	0.8	1.9	2.7	3.0	2.4
Other economic affairs	0.5	2.0	3.0	1.1	1.3			1.4
Other expenditures	4.5	8.4	5.1	9.4	8.5	0.5	0.7	3.9
Interest payments	2.6	2.4	2.7	3.3	3.0			1.6

Note: 1) Data are sums of spending by different levels of government, based on GFSY.
2) Data are from *National Accounts* published by Bank of Korea.

Source: IMF, *Government Finance Statistics Yearbook*, 2001
Bank of Korea, *National Accounts*, 2001.

Table 4. Trends of Sectoral Spending in Advanced Countries

(% of GDP)

	U.S.		Germany			France		U.K.		Canada	
	1988 (2)	1997 (3)	1981 (1)	1990 (2)	1995 (3)	1979 (1)	1990 (2)	1987 (1)	1996 (2)	1980 (1)	1991 (2)
General public services	2.0	2.6	2.8	3.4	2.4	3.3	3.4	1.2	3.3	3.5	2.6
Defense	5.5	3.2	2.9	2.3	1.4	2.7	2.7	4.4	2.7	1.6	1.7
Public order and safety	1.3	1.6	1.5	1.4	1.5	0.2	0.8	2.3	0.2	1.4	2.4
Education	6.8	7.2	4.9	3.7	4.4	4.3	4.6	5.2	4.3	8.9	10.7
Health	4.9	7.2	8.3	7.3	8.6	5.8	6.9	5.0	5.8	6.8	8.3
Social protection	8.1	8.4	19.9	18.1	21.7	17.7	19.9	15.7	17.7	10.3	17.2
Housing and community amenities	0.9	0.8	2.4	2.1	2.2	2.3	2.4	2.5	2.3	1.9	1.3
Recreation, culture, and religion	0.4	0.4	1.0	0.8	0.9	0.7	1.0	0.7	0.7	1.0	1.3
Economic affairs	3.5	2.7	5.7	5.0	5.6	3.7	3.0	3.2	3.7	7.9	7.4
Fuel and energy	0.2	0.0	0.2	0.1	0.1	0.1	0.5	0.1	0.1	0.0	0.5
Agriculture, forestry, fishing, and hunting	0.6	0.4	0.7	0.7	0.7	0.4	0.2	0.2	0.4	0.5	1.7
Mining, manufacturing, and construction	0.0	0.0	0.2	0.4	0.3	0.3	0.2	0.2	0.3	1.3	0.1
Transport and communication	2.0	1.8	3.4	2.2	2.5	2.0	1.2	1.2	2.0	3.9	3.0
Other economic affairs	0.7	0.5	1.2	1.4	2.0	0.8	0.9	1.5	0.8	2.2	2.1

Note: 1) The parenthesized number (1) refers to the year when the nominal per-capita income was USD 10,000, (2) USD 20,000, and (3) USD 30,000.

Source: The same as in Table 3.

2. Impact of Public Spending on Economic Growth: Survey

The impact of government spending on growth has been one of the hotly debated topics in economics literature. A notable study is Aschauer (1989), who claimed that the non-military public capital was a very important factor in determining the private sector productivity. He used U.S. data for 1949-1985 and concluded that a 1 percent increase in the ratio of public to private capital stocks raised total factor productivity by 0.4 percent. Based on this result, he suggested that the productivity slowdown in U.S. after the 1970s mostly came from the decline in public investment.

Aschauer (1989) triggered a series of studies, some of which confirmed his results and some did not. Examples of the former include Morrison and Schwartz (1996) and examples of the latter Holtz-Eakin (1994). Many of these follow-up studies relied on state-level data, because the federal-level data were deemed inadequate to determine the causality between the productivity slowdown and the decline in public investment noted above.

In a similar context, Baffes and Shah (1993) employed translog production functions to

estimate the impact of various input factors – labor, private capital, infrastructure capital, human resource development capital, and military capital – on output. They constructed the human resource development capital stock from public investment series on health, education, and training using a perpetual inventory method. Their data set covered 25 countries in 1965-84. Their estimation showed that human resource development capital had the highest elasticity followed by private capital and labor. Infrastructure capital exhibited low output elasticity, while military capital had negative elasticity in many cases.

In addition to this line of studies that estimated production functions, there were many others that estimated the impact of various economic variables on the growth rate. They were often based on the theory of endogenous economic growth as espoused in Barro (1990) and Barro and Sala-i-Martin (1992).

Kormendi and Meguire (1985) used data on 47 countries from 1950 to 1977 and conducted a cross-section regression. The dependent variable was the average growth rate during this period, and the independent variables included the initial per capital income in 1950, the population growth, the money supply growth, the growth of government consumption as a proportion of output, the growth of exports as a proportion of output, and the rate of inflation. Their results showed that government consumption had little impact on output growth.

Grier and Tullock (1987) extended the above study with a larger set of data covering 113 countries from 1951 to 1980. They averaged the data over five-year periods (1951-55, 1956-60, etc.) and arrived at around 500 data points. They performed a pooled cross-section, times-series regression on these data. Unlike in Kormendi and Meguire (1985), their result showed that government consumption has a significantly negative relation with output growth.

Diamond (1989) ran a cross-section regression on 38 countries for the period of 1980-85. He found that the capital expenditure on infrastructure (electricity, water, transport, etc.) and social services (education, health, welfare, housing, etc.) tended to raise the growth rate as did the current expenditure on economic services (agriculture, manufacturing, etc.). Given the limited number of data points and a very short sample period, however, their result does not look very credible.

Barro (1990) used data for 76 to 98 countries over the period of 1960-80 and ran a cross-section regression. He employed various control variables, including the initial per capita income, school-enrollment rates at the secondary and primary level in the initial year, investment-to-output ratio, and variables indicating political instability (number of coups and assassinations per year). His results showed that government consumption had a significant negative impact on growth.

Easterly and Rebelo (1993) collected data on the consolidated public sector investment (including investment by public corporation) from various World Bank reports on individual countries since 1960. Their data set comprised 36 countries in the 1960s, 108 in the 1970s, and 119 in the 1990s. Then they constructed decade-average public investment ratios and performed a pooled cross-section, time-series regression using similar control variables as Barro (1990). They found that public investment in transport and communication was robustly correlated with growth.

Devarajan, Swaroop, and Zou (1996) provided a particularly comprehensive attempt to study the impact of expenditure composition on economic growth to explicitly shed light on cross-sectoral allocation issues. They included on the right-hand side of their regression equation the ratio of total spending to GDP, the share of current and capital spending in total spending, and the share of sectoral spending in total spending. They also employed continental dummies and a couple of control variables to represent the black market premium for foreign exchange and the external shock to the economy. The dependent variable was a five-year forward moving average of per-capital real GDP growth.

They ran regression over 43 developing countries from 1970 to 1990, and found a positive and significant coefficient on the share of current spending and a negative and significant one on the share of capital spending. Among the various sectoral spending, spending on transport and communication had a negative and significant coefficient, while the coefficients on other sectoral spending were mostly insignificant. These results stand in sharp contrast to those of previous studies such as of Barro (1990) and Easterly and Rebelo (1993). Devarajan, Swaroop, and Zou (1996) raised the possibility that developing countries are misallocating public money in favor of capital expenditure at the expense of current expenditures. In addition, many capital programs may be ‘white elements.’ In fact, Devarajan, Swaroop, and Zou (1996) performed similar regressions on 21 developed countries, and obtained results opposite to those for developing countries and similar to those in previous studies. This implies that the developed countries are doing the reverse.

While Devarajan, Swaroop, and Zou (1996) showed that the productivity of public spending can differ across countries depending, for example, on the existing amount of capital stock, Miller and Russek (1997) noted that the way expenditures are financed may also affect the overall productivity. Previous studies considered various expenditure variables in explaining the output growth but usually excluded revenue variables from consideration. When the latter are included in regression, the coefficient on expenditure variables would indicate the impact of spending financed by borrowing, and the sum of coefficients on expenditure and revenue variables would indicate the impact of spending financed by revenue increases.

Miller and Russek (1997) estimated a fixed-effect model using annual data on 39 countries from 1975 to 1984. Their control variables included the population growth, investment as a proportion of GDP, export and import as a proportion of GDP, and the inflation rate. Their results showed that for developing countries, debt-financed increases in government expenditure retard growth and tax-financed increases stimulate growth, while for developed countries, debt-financed increases lower growth and tax-financed increases have unclear impact on growth. Regressions using sectoral spending and individual tax revenues yielded similar results.

Kneller, Bleaney, and Gemmell (1999) employed similar methodology as Miller and Russek (1997). They decomposed the total spending into productive expenditures (general public service, defense, education, health, housing, and transport and communication), unproductive expenditures (social security and welfare, recreation, and economic services), and other expenditures. They also decomposed the total revenue into distortionary taxation (taxation on income and profit, social security contributions, and taxation on payroll and manpower), non-distortionary taxation (taxation on domestic goods and services), and other revenues (taxation on international trade, non-tax revenues, and other tax revenues). Their data set covered 22 developed countries for the period 1970-95. Their control variables included the initial year per-capita income, investment-to-GDP ratio, and the labor force growth rate. They took 5-year averages of variables and estimated a fixed-effect model.

Their estimation results showed that debt-financed increases in expenditure tend to lower the growth rate, and in particular, unproductive expenditures have a large negative impact on growth. Tax-financed increases, on the other hand, have different impacts depending on the type of taxation. Distortionary taxation lowers growth for all types of expenditures. In case of non-distortionary taxation, increases in productive and other expenditures raise growth, and increases in unproductive expenditures have no effect. The effect of increased spending financed by other revenues is unclear.

These results are summarized in Table 5. These diverse and often conflicting results reflect the basic problems shared by similar empirical studies (Pradhan, 1996). First, such cross-country studies present evidence about the “average” impact, and it is infeasible to control for the myriad of factors that typically determine marginal returns of particular intersectoral allocations across countries at different points in time. In particular, many of the important avenues by which government affects the economy have little or no budgetary consequences (Slemrod, 1995). Examples include the enforcement of property rights, competition and regulation policies, minimum wage rules, and trade restrictions. When these “unmeasured” components of government have a systematic relation with the measured components, or when

the former outweigh the latter in their impact on growth, the statistical analyses looking only at measured components are bound to produce imprecise or biased results.

Table 5. The Impact of Public Spending on Economic Growth

Author(s)	Sample	Main results	Note
Aschaer (1989)	1949-85, U.S.	Non-military public capital is a very important factor in determining the private sector productivity.	Time-series regression. Some of the subsequent studies do no confirm his results.
Baffes and Shah (1993)	1965-84, 25 countries	Human resource development capital has a high output elasticity, while infrastructure capital exhibits a low one.	Time-series regression
Kormendi and Meguire (1985)	1950-77, 47 countries	Government consumption has little impact on output growth.	Cross-section regression
Grier and Tullock (1987)	1950/60-1980, 113 countries	Government consumption has a significant and negative relation with output growth.	Pooled cross-section, time-series regression. Data averaged over 5-year periods.
Diamond (1989)	1980-85, 38 countries	Capital expenditure on infrastructure and social services tends to raise the growth rate as does the current expenditure on economic services.	Cross-section regression. Too few data points over a short period.
Barro (1990)	1960-85. 76 or 98 countries	Government consumption has a significant negative impact on growth.	Cross-section regression
Easterly and Relelo (1993)	1960s, 36; 1970s 108; 1980s 119 countries	Public investment in transport and communication is robustly correlated with growth.	Pooled cross-section, time-series regression. Data averaged over 10-year periods..
Devarajan, Swaroop, and Zou (1996)	1970-90, 43 developing countries, 21 developed countries	For developing countries, current spending has a positive and significant impact on growth, while capital spending, in particular spending on transport and communication, has a negative and significant impact. The opposite is true for developed countries.	Pooled cross-section, time-series regression. The dependent variable is a 5-year forward moving average of growth rates.
Miller and Russek (1997)	1975-84, 39 countries	For developing countries, debt-financed increases in government expenditure retard growth and tax-financed increases stimulate growth, while for developed countries, debt-financed increases lower growth and tax-financed increases have unclear impact on growth.	Fixed-effect model. Unaveraged annual data were used.
Kneller, Bleaney, and Gemmell (1999)	1970-95, 22 developed countries	Debt-financed increases in expenditure tend to lower the growth rate, and in particular, unproductive expenditures have a large negative impact on growth. Tax-financed increases have different impacts depending on the type of taxation. For example, distortionary taxation lowers growth for all types of expenditures.	Fixed-effect model. Data averaged over 5-year periods.

Second, the level of aggregation in the expenditure variables makes it difficult to discern what the results mean. In particular, there are a variety of programs within sectors or aggregate economic categories that have radically different impact on various outcomes, and have very different rates of return. In this context, to analyze the growth impact of education spending as a whole – when it could consist primarily of primary education in one country and tertiary in another – is not very meaningful.

Third, even if we can devise a method to get around these statistical problems, it is often insufficient to focus our attention on economic growth as the only measure of success. Government programs pursue diverse objectives such as poverty alleviation, reducing the uncertainty due to various social risks, improving environmental quality, and so forth. The achievement of these programs is not reflected in standard measures of national income. Moreover, redistributional programs may even retard growth because of the disincentive for work they generate.

3. Systems Required to Improve the Resource Allocation

3.1. Performance Assessment and Program Review

3.1.1. Overview

As is clear from the above discussion, top-down studies of the effects of government on the economy face a difficult, and perhaps insurmountable, task (Gale, 1995). It would be more fruitful to focus on the bottom-up studies of individual spending programs, analyzing their performance and reallocating resources across programs based on these studies.

In the analysis of program performance, the first criterion to be applied is the role of government versus the private sector (Pradhan, 1996). It needs to be assessed whether there is a rationale for government intervention in general and public expenditure in particular in the area to address market failures. Public expenditures should be concentrated first on goods and services that the private market will not provide or provide too little, rather than merely substituting for or even marginally improving upon the private market outcome. The expenditure should be undertaken by the private sector if it is profitable at prevailing market prices, unless there are some compelling market failures to suggest that government intervention has led to superior outcomes. This requires identifying the characteristics of demand and supply to assess whether there are specific market failures (e.g., public goods, externalities, non-competitive markets) that may cause the private market outcomes to deviate from socially desirable one. The type of market failure will indicate the scope for private financing and delivery, and therefore the form that government intervention should take – regulation, financing, or outright provision.

The second criterion is effectiveness and efficiency. If there is an underlying market failure, the social benefit-cost of programs needs to be computed so as to allocate more resources to those that make greater contribution to social welfare. This requires information on the determinants of demand (e.g., willingness to pay, price elasticity of demand, externalities) and supply (e.g., size of private sector, substitutability between public and private sectors) to measure the net social impact of expenditure allocations (including subsidies resulting from pricing policies) on private consumption and supply. Consequently, the outcomes of alternative expenditure allocations or inputs (net of their impact on private supply, if any) need to be identified, and the social valuation of alternative outcome-input combinations need to be compared.

There are various tools to assess performance and feed the information to resource allocation. In the next two subsections, we will first review performance monitoring and program evaluation and then program review.

3.1.2. Performance Monitoring and Program Evaluation

In performance monitoring, performance indicators are defined and then measured on a regular basis. The measured performance is in turn compared to the targets that were chosen at the start of the period. In Korea, examples can be found in the Performance Budget Pilot Project (PBPP) that was carried out in 1999-2002 and the Performance Management System (PMS) that was introduced in 2003.

Performance monitoring can produce information on outputs and outcomes in a frequent and timely manner at relatively low costs. Based on this information, the organization in charge of the program can modify its business plans and service delivery system. On the other hand, monitoring by itself can rarely explain the causality between inputs and outputs/outcomes. It only describes the measured performance of a program, and says nothing about the extent to which the program contributed to the observed performance. In addition, performance monitoring does not question the relevance and appropriateness of the chosen performance indicators, and takes as given the objectives and design of the program. Moreover, it is often difficult to measure with only a limited number of indicators the performance of a program that has diverse stakeholders and multiple objectives. In some cases, it is even impossible to define performance indicators. Despite these limitations, however, performance monitoring plays an important role in the overall performance management process by providing the basic information on program performance.

A second tool for performance assessment is program evaluation. According to the OECD (1999), performance evaluation can be defined as “a systematic and analytical assessment

addressing important aspects of a program and its value and seeking reliability and usability of results." Program evaluation addresses the question of why and how the program produced certain outputs and outcomes. It purports to analyze scientifically the impact of a program on the expected and unexpected results, describe objectively the factors that contributed to the success or failure of the program, and provide information that can be used to redesign the program and for other purposes. Program evaluation can also question the relevance and appropriateness of the chosen performance indicators and reassess the objectives and design of the program. On the other hand, program evaluation usually requires large amounts of money and time, and cannot be performed on all programs.

Table 6 lists key differences between monitoring and evaluation.

Table 6. Key Differences between Monitoring and Evaluation

Monitoring	Evaluation
- periodic; - assumes appropriateness of program, activities, and indicators; - tracks progress against small number of indicators; - usually quantitative; - use data routinely gathered or readily available; - cannot indicate causality; - difficult to use for impact assessment; - usually internal.	- usually episodic; - can address a wide-range of potential questions about a policy, program, or project; - can identify what has happened as a result of an intervention and provide guidance for future directions; - can address "how" and "why" questions; - wide-range of quantitative and qualitative research methods possible; - can use data from different sources; - can identify unintended as well as planned impacts and effects; - can involve internal, external, or self evaluation.

Source: Perrin (2000).

3.1.3. Program Review

According to OECD (2003), program review is a specific form of program evaluation. It is characterized by the fact that it is initiated and supervised from the center of government, namely the Budget Office or the Office of the Prime Minister/President. At present, program evaluation supervised by spending departments is common practice in many OECD countries. Since the goals and outputs of many programs cannot be measured in a reliable way as noted above, evaluation is widely used by program managers to acquire feed-back information about their activities, in terms of effectiveness and cost efficiency. However, program review fulfils different functions:

- It looks at the allocative efficiency of programs for the government and the

citizen/consumer.

- It looks at the consequences of alternative funding levels.

The first function requires the answering of questions such as:

- Is this program motivated by a valid motive for government intervention or should it be left to the market or the private non-profit sector?
- Should this program be organized at the level of national government or should it be left, for instance, to the municipalities?
- Does this program use the appropriate instrument or should it, for instance, use regulation or a tax instead of a subsidy?
- Is this program designed appropriately from the point of view of allocative efficiency for the government/consumer, for in stance the right subsidy base, regulatory object, criteria of eligibility, etc.?

The second function requires the answering of questions such as:

- What would be the consequences for the quality of services, the level of provision, the private funding contribution and the demand for substitute services, if public funding were reduced by, for instance: 5%, 10% or 20%?

These two functions are typically not fulfilled by policy evaluation under the supervision of spending departments. Countries that have standard procedures of program review include U.K. (Spending Review), the Netherlands (Interdepartmental Policy Review), and U.S. (Program Assessment Rating Tool).

Program review tends to be a controversial institution. Spending departments resist being subjected to it. The review exercises themselves often do not run smoothly and sometimes turn into interdepartmental battlefields. Special rules such as used in the Dutch procedure may alleviate these problems (external chairman, no veto-right, secretariat provided by the Ministry of Finance, supervisory committee wherein the spending departments are not represented). Yet in the years of high economic growth during the nineties, the Dutch Minister of Finance had to give up the obligatory 20 percent retrenchment variant in order to save the procedure. Also, there were years that the procedure hardly survived. The British procedure exists only since 1998 and has a relatively mild obligatory retrenchment alternative of 5 percent.

Nevertheless these procedures are important. They provide for opportunities to build reallocation into the regular budgetary process. Program review yields information on the

allocative efficiency of programs and alternative scenarios. Furthermore, program review tends to strengthen the position of the Minister of Finance and the Prime Minster/President in the decision-making process. These are exactly the ministers that have a positional interest in allocative efficiency because they are judged by the electorate on the costs and benefits of government as a whole.

Although introduction of program review is a difficult reform, it might therefore be worthwhile for governments that do not have it to start with it. If program review is combined with multi-year expenditure frameworks, it becomes somewhat easier to find compensatory measures. Especially in the changed budgetary landscape of the 21st century, program review may be a preferable alternative to big periodical retrenchment exercises that are applied in spasmodic fashion and for which the procedures have to be hammered out at every new occasion.

3.2. Medium-Term Expenditure Framework

The Korean government recently published *National Fiscal Plan: 2004-2008*. This is regarded as the first attempt to introduce a medium-term expenditure framework (MTEF) in the central budgeting process, and was welcomed in policy circles. An MTEF comprises of setting out medium-term fiscal policy framework based on macroeconomic and fiscal projections, preparing and implementing annual budgets within this framework, and explaining to the public the government's ex ante intentions and ex post outcome. Up to now in Korea, the budgeting process has been focused on the next single budget year and lacked a medium- to long-term perspective, and enough information has not been provided to the public concerning the workings of fiscal policy. The MTEF introduced with the Plan is expected to alleviate these problems.

Another possible benefit of an MTEF is the improved allocative efficiency of budgeting. When deliberating on the draft budget, the central budget office currently tends to review all spending programs from the bottom. This practice has limited the ability of the central budget office in the detailed analysis of new policy proposals contained in departmental budget requests. In an MTEF, the central budget office would focus their attention to new policy proposals and give less weight to the continuing programs that have been in place since the last budget. In addition, the central budget office would take into account the long-term cost implications of new policy proposals. These features can facilitate a more rational choice of policies and programs and enhance the allocative efficiency.

The publication of the Plan was a big improvement in this regard. But there are several points that need clarification in the details of the MTEF as introduced and embodied in the Plan.

First, medium- to long-term fiscal objectives are not explicitly set out in the Plan. The Plan simply presents medium-term projections on revenue, expenditure, budget balance, and debt, and does not state which is the main variable that the government wants to manage at the projected or any other level. For example, the Plan projects a de facto balanced budget over the years (2004-08) covered by the Plan. But it is not clear whether the government would try to keep the budget balance at the projected level each and every year, or it would allow cyclical fluctuations around the level and pursue "balancing over the business cycle." The latter practice makes room for the automatic stabilizer to work in full, and can be found in many countries including U.K. These countries usually specify their medium- to long-term fiscal objective in terms of the debt-to-GDP ratio and spell out the average level of budget surplus they would maintain over the business cycle to achieve the fiscal objective.

Second, the firmness of departmental spending is also uncertain. The Plan presents the planned level of total spending and its sectoral allocation, but does not state how firm are these numbers and whether they would constitute ceilings on future spending. I would prefer a fixed ceiling on the total spending and indicative ceilings for departmental spending, as can be found in Sweden. Such ceilings would impart greater tranquility to planning and budgeting, and would also facilitate the working of the automatic stabilizer. The ceilings, if adopted, should be placed on the discretionary portion of government spending because non-discretionary spending – e.g., interest payments, pension and other social insurance benefits, and formula-based grants to local governments – cannot be subjected to annual budget deliberation. The National Fiscal Management Plan for now does not distinguish between discretionary and non-discretionary spending.

Third, the Plan spans 5 years from 2004 to 2008, of which one year (2004) is the current year, one year (2005) is the budget year, and three years (2006-08) are out-years. Three out-years looks too long for effective planning, and too short to identify long-term trends in fiscal variables. It is advisable to set up a shorter period (say, two out-years instead of three) for planning and management purposes, and a longer period (say, ten years including the out-years) for long-term projection and trend-analysis. The single projection periods adopted in the current Fiscal Plan does not look appropriate to serve both of these needs.

Fourth, in preparing the budget within the framework set out in the Plan, the central budget office would calculate the baseline spending scenario assuming no policy changes, and then focus their attention on new policy proposals and the savings options on existing programs. This is a key innovation that has the potential to improve the allocative efficiency of budget as explained above. Nonetheless, the current draft budget does not contain a distinction between the baseline, new policy proposals, and savings options. It is hoped that such distinction would

be developed in future years.

4. Reducing the Spending on Economic Services

As noted at the beginning, Korea is distinguished from other countries in the high concentration of expenditure on economic affairs. On the one hand, this reflects the inertia built in the system. On the other hand, it is based on the belief that Korea still needs large investment in roads, ports, and railways and that Korea still needs to provide large government loans to the agricultural, manufacturing, and construction sectors because the financial market is not yet fully developed. But there are strong doubts about these claims.

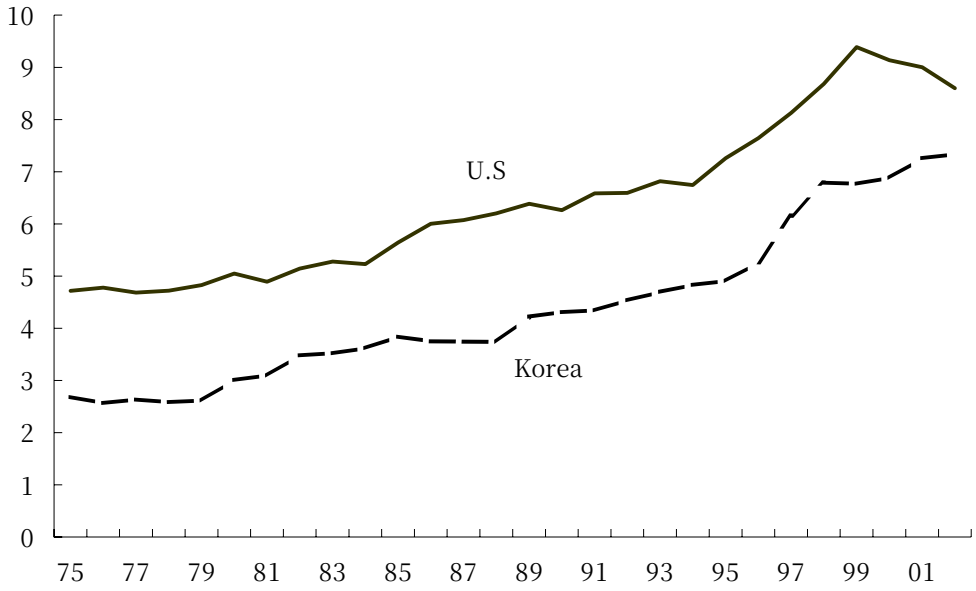
First, the rapid increase in expenditure on social infrastructure during the 1990s need not be sustained in the future. Many experts in this area agree that with the completion of major road-building programs, it is time to reorganize the overall investment strategy. In particular, we should pay more attention to the demand-management (through increased user-charging) and the proper maintenance of existing stocks of infrastructure. The proportion allocated different areas of infrastructure – roads, ports, railways – should also be readjusted so as to better meet changing demands.

Second, the Korean financial market has undergone a rapid change since the 1980s and especially after the economic crisis. The size of financial markets has been increasing remarkably (Figure 1). Banks are rapidly expanding their credits to households and small and medium-sized enterprises, and large corporations are turning ever more to capital (stock and bond) markets (Figure 2). With the substantial decline in interest rates (Figure 3), households and small businesses have better access to commercial loans. In this circumstance, the government appears to be playing a substitutive, rather than complementary, role to commercial banks in many cases. It is now generally believed that the government should reduce its role as a provider of financial resources for private enterprises. The reduced government role in this area will not only help restrain the growth of public expenditure but also promote the private financial market and reduce the distortion in resource allocation.

On the other hand, the government should increase its effort in the provision of basic public service such as public security, fire-fighting, judicial services, promotion of competitive business practices, prudential regulation of financial institutions, statistical services, environmental protection, etc. These services do not produce immediate benefits that the government can show off to the public, but they are vital in long-term economic growth and social development. Unfortunately, their importance has been generally understated to this day in Korea. For example, competition policy is still at its early stage of development. Statistical services also need to be improved; the government has deployed a lot of policy measures to

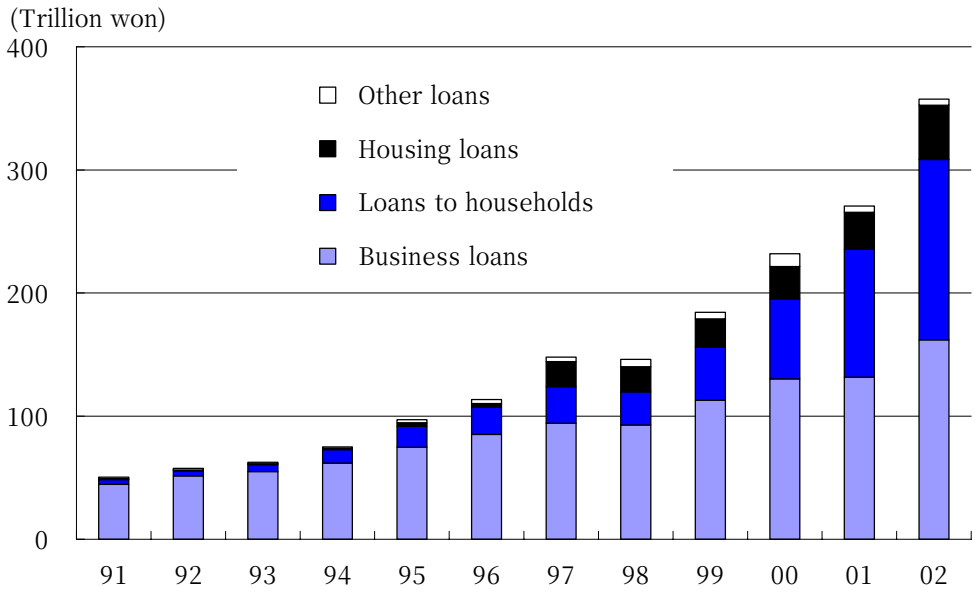
mitigate regional disparities, but there do not even exist reliable data on gross regional product.

Figure 1. The Ratio of Financial Assets to GDP



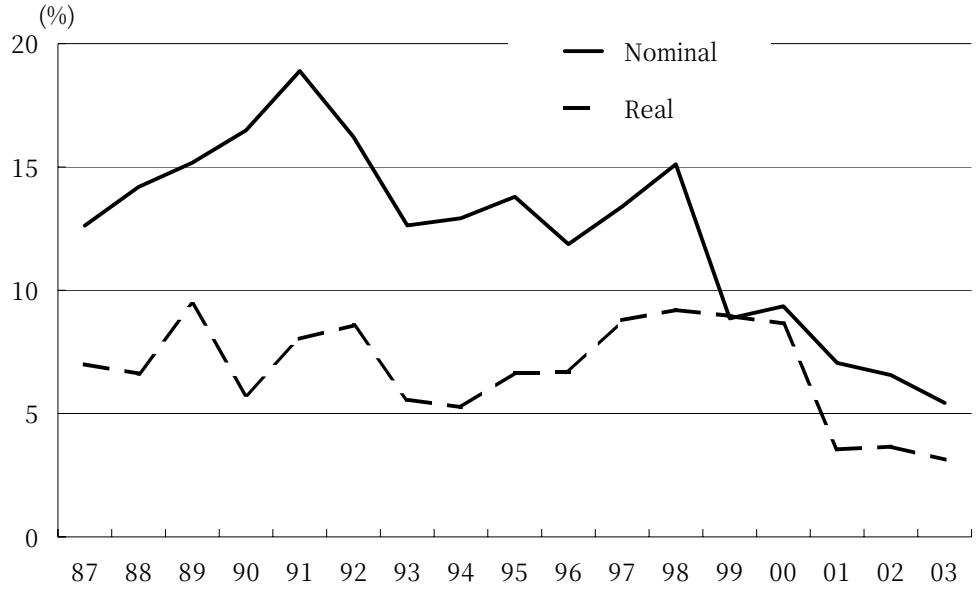
Source: Bank of Korea, *Flow of Funds*, various issues.
Board of the Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States: Annual Flows and Outstandings*, various issues.

Figure 2. Composition of Loans by Commercial Banks



Source: Financial Supervisory Service, *Monthly Financial Statistics*, various issues.

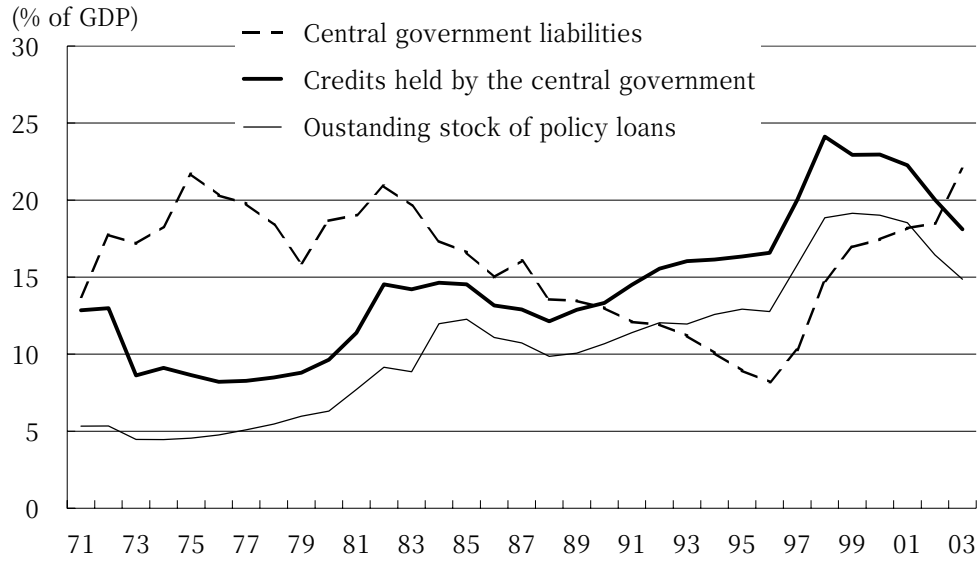
Figure 3. Trends in the Market Rate of Interest



Source: Bank of Korea.

At the same time, continued efforts are needed to reduce the outstanding stock of government loans. Figure 4 shows that the credits held by the government correspond to around 20 percent of GDP, and most of them are in the form of policy loans. The outstanding stock of policy loans as a proportion of GDP is declining in recent years, but still stood at 15 at the end of 2003. These loans should be reduced further to allow a greater role for the private market in resource allocation.

Figure 4. Liabilities and Credits of the Central Government



Note: Government credits refer to loans, uncollected tax and non-tax revenues, and other non-marketable financial claims.

Sources: Ministry of Finance and Economy.

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