

**A Study on the Strengthening of Internet Control System for Securing Financial  
Soundness of State-Owned Enterprises**

By

**AHN, Duck Hoon**

**CAPSTONE PROJECT**

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

**MASTER OF PUBLIC MANAGEMENT**

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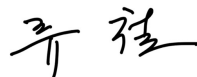
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## Abstract

State-owned enterprises (SOEs) in Korea are heavily indebted. As of the end of 2020, public sector debt (D3), including debt from non-financial SOEs, amounted to 1,280 trillion won, accounting for 66.2% of GDP (FIS, 2022). Although the size of government debt is still stable, the situation changes when considering the debt of SOEs. This is because governments have used SOEs as a top priority tool for achieving the policy goals of the regime as an alternative to limited government finances.

A representative SOE is K-water. K-water is a public institution whose financial soundness has greatly deteriorated by participating in the government's key policy projects, and is also the institution whose financial structure is improving the fastest through its own efforts since then. In other words, we can analyze the main causes of SOEs' debt and find alternatives through a case study on K-water. K-water invested about KRW 11 trillion by participating in the Four Major Rivers Project and the Gyeong-in Ara Waterway construction project, and the debt ratio of 19.6% in 2008 soared to 211.4% in 2015. In the process of participating in these projects, there was no internal financial decision-making standard, and the internal control system did not work at all. As a result, K-water has become a financially poor institution and is still required to make high-intensity self-rescue efforts. Since then, in order not to repeat the case of the Four Rivers Project, the highest internal regulation, the financial management rules, has been established. The core content is the accounting pay-go principle that limits the increase in debt to within the increase in capital. Since the introduction of the rules, K-water's financial structure has been radically improved every year. However, this achievement was possible thanks to the absolute will of the management including the CEO to improve the financial structure by complying with the financial rule and the consent of the government that approved

the financial plan established in accordance with K-water's internal rule. In other words, the financial rule established by the institution itself is just internal regulation and has no external binding force. In addition, the limitations are clear because the government can control all decisions of SOEs through the 'Act on the Management of Public Institutions', regardless of the internal regulations of SOEs. Comparing the OECD Guidelines (2015 Edition), which requires a clear distinction between guaranteeing the autonomy of SOEs and the exercise of government ownership, the Act has a strong control purpose, such as the government's active ownership exercise and supervision.

Therefore, it is desirable for the government to control SOEs by setting the financial limit of SOEs within a certain range, and for SOEs to carry out autonomous and responsible management activities within that boundary. This paper suggests the following three measures for maintaining the financial soundness of SOEs. First, in order to strengthen the legal authority and basis of SOEs' internal control measures, it is required to prepare a legal basis for the internal control system of SOEs. This is a plan to introduce a case of compliance management standards of listed companies based on 'the Commercial Act' to the 'Act on the Management of Public Institutions' to obligate the introduction and implementation of financial management rules for each institution. In other words, it enacts and manages financial rules for each company through laws. Second, regulations such as the financial management rule introduced by K-water should be established to secure internal decision-making standards for SOEs themselves. It is to establish the rules for each institution by specifying the relevant standards that each institution implicitly uses for financial management, such as mid- to long-term financial plans. Third, the professionalism, responsibility, and authority of the board of directors of SOEs, which are the main body that operates the financial management standards, should be strengthened.

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## **I. Introduction**

### **A. The background and purpose of the study.**

State-owned enterprises (SOEs) have played a very important role in the Korean economy. However, there is constant noise related to SOEs, such as inefficiency, lax management, excessive debt, and inappropriate personnel management. And the most important topic among them is the financial soundness. Since the past, most governments promoted reform of SOEs, but have not achieved much results. Recently, the new government is also pushing for strong restructuring to innovate debt and inefficiency of SOEs.

The debt problem of SOEs arises from inefficient operations. And, the causes of inefficiency in SOEs can be largely divided into two categories: market failure and control problems. The problem with the market failure is that SOEs have limitations in which market mechanisms do not work by nature. There are areas where inefficiency inevitably occurs, such as the utility rate system determined according to government policies and the performance of the government's public role, not transactions in the market. The problem with control is the matter of management and governance over SOEs. And this in turn causes a conflict of interest between the autonomy of SOEs and the role of shareholders of the government. SOEs in Korea are operated in accordance with the 'Act on the Management of Public Institutions'. This law was enacted in 2007 based on the OECD guidelines for public corporate governance announced in 2005. However, despite these efforts, problems related to SOEs continue to arise. There may be many reasons, but the biggest reason is that the governance structure stipulated in this Act is not effective (Song, 2017). Contrary to the purpose of enacting the 'Act on the Management of Public Institutions', the government failed to establish a consistent policy control range for SOEs, SOEs also failed to secure autonomy and responsibility. Depending on the regime, the



expansion and reduction policies of SOEs are repeated, and in the process, SOEs have failed to prepare internal control system especially from a financial perspective.

It is time to change the governance management structure of SOEs. The government should set clear financial standards for SOEs to comply with, and SOEs should change in the direction of implementing autonomous responsible management within that range. This paper aims to suggest ways to improve transparency of SOEs and induce sound financial structure in terms of management and governance of SOEs through K-water's case study.

## **B. Scope and method of research**

The purpose of this study is to seek ways to strengthen its own internal control system so that SOEs can maintain permanent financial soundness. The scope of the study therefore deals with an overall review of relevant statutes, international guides, and institutional internal regulations.

The research method focuses on case studies of K-water. K-water is the public institution whose financial soundness has been greatly damaged by participation in the Four-Rivers Project, a government policy project, and at the same time, its financial structure has been improving the fastest through its own efforts since strengthening the internal control system (the financial management rule). Therefore, through the case study for K-water, the main cause of SOEs debt can be analyzed and alternatives can be found.

## **II. Literature Review**

Shin Min-cheol and Cho Tae-jun (2013) analyzed the reform plan of the internal control system in the public sector. It was suggested that it is necessary to establish internal control standards at the pan-government level as an integrated norm that can be referenced and utilized throughout the public sector. In addition, it was emphasized that it is necessary to reach an agreement on the principle of governance establishment and management with related agencies such as the Ministry of Economy & Finance, the Board of Audit and Inspection, SOEs, and central ministries.

Song Ok-ryul (2015) proposed a plan to strengthen the transparency and financial soundness of SOEs. This paper points out that the core contents of the SOEs business field are determined by the government's policy, not by the management judgment of the manager, and that there are few areas that the management of SOEs can control autonomously. In addition, since administrative control of SOEs is overlapped by the The Ministry of Economy & Finance and the competent ministries, it is analyzed that the responsibility is unclear even if the management performance of SOEs is poor. And, it was emphasized that the most important thing in the debt management measures of SOEs is to block the temptation to pursue government policy projects with debt of SOEs rather than government finances.

Nam Il-chong (2015) analyzed the main issues of SOEs governance and suggested improvement measures. The paper pointed out that even if a government introduces a system that can increase the efficiency of SOEs, if the next government in power after five years choose a policy that sacrifices efficiency without implementing it, the system will be useless and the public sector will fall into a vicious cycle of inefficiency again. In order to solve this problem,

this paper emphasized the importance of protecting the system for public sector from the influence of the political environment.

Song Yang-ho (2017) studied improvement of corporate governance of State-Owned Enterprise. It was judged that the problem related to debt of SOEs was due to the ineffective governance structure of SOEs stipulated in ‘the Act on the Management of Public Institutions’ compared to the OECD Guide. It was pointed out that the biggest problem of the Public Institution Management Act is that the government expects to play the same role as the shareholder of the private enterprise even though it does not share the fate with the private enterprise. As a way to solve these problems, it was emphasized that it is necessary to establish a system that regulates the internal work process itself. It was proposed to introduce an internal control system based on laws such as the compliance support system under the Commercial Act. The Commercial Act requires listed companies of a certain size or larger to prepare compliance control standards and procedures (Article 542-13). Through this, executives and employees are required to prepare standards related to business performance in advance. However, it did not deal with specific application plans and measures.

Park Han-jun (2018) analyzed the main contents and implications of the OECD Guidelines on Corporate Governance of State-Owned Enterprises. The current ‘the Act on the Management of Public Institutions’ enacted in 2007 also tried to systematically implement the main directions of the OECD guidelines, but it was evaluated that the public institution management system did not contribute significantly to enhancing autonomous management and responsible management. It was emphasized that autonomy, responsibility, transparency, and policy consistency should be very important management principles in an environment where public

institution operational responsibilities are complicated by various hierarchies such as managers, boards, owners, government ministries, and councils.

A number of related papers emphasize that a consistent policy control system should be established as a way to eliminate inefficiency in public sectors. By specifying Song (2017)'s study, this paper proposes that SOEs introduce financial rules as part of the internal control system and further suggests the direction of revision of 'the Act on the Management of Public Institutions' as a way to strengthen the binding force of internal regulations, financial rules.

Table 1: Summary of reference papers

Literature	Main point of view
Shin and Cho (2013)	Necessity to prepare government-wide internal control standards for SOEs
Song Ok-ryul (2015)	Necessity to prevent the promotion of government policy projects using debts of SOEs
Nam Il-chong (2015)	Necessity of establishing a system to protect the public sector from political influence
Song Yang-ho (2017)	Proposal to introduce an internal control system based on the law
Park Han-jun (2018)	Autonomy, accountability, transparency, and policy coherence should be very important management principles.

### III. Case study: K-water's financial management rule

#### A. The debt problem of state-owned enterprises

Korea's government debt (D2) is 48.9% of GDP as of the end of 2020, which is known to be stable compared to the average of 122.7% in advanced countries (FIS, 2022). But public institutions' debt is different. Korea's non-financial SOEs' debt is 20.6% of GDP as of 2019, which is higher than any other country with data, including the UK, Canada, and Japan, which are key currencies (Hwang, 2021). As of the end of 2020, the public sector debt (D3), including the debt of non-financial SOEs, was 1,280 trillion won, accounting for 66.2% of GDP (FIS, 2022).

Table 2: Statistics by debt type (Korea Fiscal Information Service, 2022)

Sortation	2020 Scale (% of GDP)	Calculation	Uses
D 1	846.6 trillion won(43.8%)	Central and Local Government	National Finance Management Plan
D 2	945.1 trillion won(48.9%)	D 1 + Non-profit SOEs	Global comparison (IMF, OECD)
D 3	1,280 trillion won(66.2%)	D 2 + Non-financial SOEs	Public Sector Financial Soundness Management

In addition, the total debt of public institutions is 583.0 trillion won at the end of 2021, increasing sharply every year from 493.2 trillion won in 2017 (MOEF ALIO, 2022).

Narrowing the scope to SOEs reveals the seriousness of the problem. Thirty-six SOEs account for 75% of all public institution debt, and not only the size of debt but also the debt ratio, a measure of financial soundness, is deteriorating every year.

Table 3: 36 state-owned enterprises' liabilities (ALIO, 2022)

Sortation	2017	2018	2019	2020	2021
Debt (trillion won)	364.4	371.5	388.5	398.2	434.1
Debt/Equity Ratio (%)	176.7	177.5%	182.1%	181.8%	194.0%

The problem of SOEs is not just deteriorating stability. Net profit is also noticeably decreasing every year, and losses have been recorded for two consecutive years since 2020. The efficiency of corporate management is also seriously deteriorating. On the other hand, the total asset size in 2021 increased by 15% compared to 2017. In other words, it means that assets increased through liabilities, not capital, but these increased assets did not help realize profits. Only the size of non-profitable assets that are not linked to the profits of SOEs has increased.

Table 4: 36 state-owned enterprises' total asset and net profit (ALIO, 2022)

Sortation	2017	2018	2019	2020	2021
Total Asset (trillion won)	570.6	580.9	601.8	617.3	658.0
Net Profit (trillion won)	4.3	2.0	1.3	- 0.7	- 1.8

Despite the long-term efforts of successive administrations to improve the efficiency of SOEs, the financial situation of public corporations continues to worsen. And this problem will eventually lead to a surge in utility bills.

## **B. Causes of inefficiency in SOEs**

SOEs were originally established for the purpose of providing public services rather than pursuing profits. Since SOEs are established for the purpose of supplying public goods such as water, highway, and electricity, they are an extension of government functions, but they are made to continue and autonomous management independently of the government. As an extension of government functions, decisions made by SOEs should be made in accordance with the public interest. However, this is not the case in reality, but rather inefficiencies such as lax management are occurring.

The reasons are various. ① In general, there is an inefficiency from the rigid operation of the budget and settlement system in the public sector. There are fewer incentives to save money because there are incentives to consume a set budget in the year. ② The goods or services supplied by SOEs are determined by the government's policy, not by the manager's management judgment. ③ It is unclear who is responsible for the management performance of SOEs. ④ When a SOE is used for political purposes, it leads to serious inefficiency. ⑤ Public protection for SOEs also results in inefficiency. ⑥ The tendency of management of SOEs to hedge or safety-oriented is mentioned. ⑦ Since other competitors are not allowed to enter the business to which the SOE belongs, there is also an absence of competition, that is, inefficiency from monopoly (Song, 2015).

The causes of inefficiency in SOEs can be largely divided into two categories: market failure and control problems. The problem with the market failure is that SOEs have limitations in which market mechanisms do not work by nature. There are areas where inefficiency inevitably occurs, such as the utility rate system determined according to government policies and the performance of the government's public role, not transactions in the market. The problem with control is the matter of management and governance over SOEs. And this in turn causes a conflict of interest between the autonomy of SOEs and the role of shareholders of the government. The reason is that the government recognizes SOEs as a tool to achieve the government's policy goals.

In Korea, the government has traditionally recognized SOEs as tools used to achieve the government's various policy goals, not as companies seeking to maximize corporate value, and as a result, the efficiency of SOEs has been severely limited. As long as the government uses SOEs as a tool for policy, effective competition is difficult even if a competition system is introduced to public sector (Nam, 2015).

In particular, the financial structure of SOEs has deteriorated significantly since the 2000s by having them carry out large-scale national projects in order to avoid revealing the national fiscal deficit. In the case of the Korea Land and Housing Corporation (LH), which has the largest debt among SOEs, the debt has expanded significantly while operating the public rental housing project. In addition, the Korea Gas and the Korea National Oil corporations expanded their debt by investing heavily in overseas resource development. As is well known, K-water expanded its debt due to the Four-Rivers Project, and the Korea expressway, Korea Railroad, and Korea national Railway corporations issued large-scale bonds during the government-led construction of roads and railways (Hwang, 2019). The government or ruling party selects policy projects without sufficiently considering and allocates them to SOEs.

### C. K-water's financial management rule

A representative example is K-water, whose financial soundness has been greatly damaged by participation in the Four-Rivers Project. Participation in the Four-Rivers Project and the Gyeong-in Ara Waterway construction project cost nearly 11 trillion won, and the debt ratio of 19.6% in 2008 soared to 211.4% in 2015. In particular, as the debt-sharing plan for the Four-Rivers Project was finalized in 2015, capital decreased and the debt ratio soared due to asset loss treatment of 6.4 trillion won in non-recoverable investment costs.

Table 5: Changes in the size of K-water debt (K-water Accounting Audit Report)

Sortation	2008	2010	2012	2014	2015
Debt (trillion won)	2.0	8.0	13.8	13.5	13.3
Debt/Equity Ratio (%)	19.6%	75.6%	122.6%	112.4%	211.4%

Looking at the process of K-water's participation in the policy project, in conclusion, the final decision was made in the form of the internal board of directors accepting government orders. At the time of decision to pay a large amount of 8 trillion won for the Four-Rivers Project, there was no internal reasonable financial standard, so the decision-making process could not be controlled.

If there were more reasonable internal control standards, it would have been possible to demand a preemptive promise to the size of the government's financial sharing and how to implement financial support based on this. According to the Board of Audit and Inspection's audit report on the Four-Rivers Project in 2018, some experts say that it was legal because the Four-Rivers Project ordered or requested by the government through a national policy coordination meeting was implemented through the decision of the K-water board of directors.



Of course, it is reasonable to act as an executive agency of government policy as a public institution, but participating in policy projects and responsible for a large portion of the cost on behalf of the government is another matter. Because there were no transparent and reasonable financial decision-making standards at the time, the board's decision resulted in a huge financial loss to K-water. Although 30% of the principal and full financial interest support were promised through the National Policy Coordination Meeting in 2015 when the project was completed and the regime changed, this debate has been controversial every year in the government budget review process and will continue until 2036, when debt repayment is completed.

Table 6: Four-Rivers Project debt sharing plan (MOEF, 2015)

Sortation		K-water	Government	Sum
Share Size	Principle	5.6 trillion won (70%)	2.4 trillion won (30%)	8.0 trillion won
	Interest	-	2.9 trillion won	2.9 trillion won
Share Period		‘15~’36 (22 years)	‘16~’31(16 years)	Interest support: ~’36

Based on these failures, K-water established fundamental financial management principles to enhance the rationality and transparency of internal decision-making and to improve the company-wide financial structure. Accordingly, K-water has implemented basic fiscal rule since 2013. And then, in 2018, based on the accounting pay-go principle, it has been fully amended and operated as the highest internal regulation covering all financial fields such as budget settlement, water rate, assets, and funds. This regulation, which is held only by K-water among SOEs, is a representative example of public institution's financial soundness efforts, and is receiving very positive reviews externally, including the government, National Assembly, and academia. In addition, many other SOEs are reviewing the introduction of K-water's system through benchmarking. The main contents of K-water's financial rule are as follows.

Table 7: Main contents of K-water's financial management rule (K-water, 2019)

- Reflecting the accounting pay-go compliance principle as a compulsory rule
  - (Principle 1) Limit the amount of debt increase to within the capital increase before repayment of the Four-Rivers Project
  - (Principle 2) Maintain the debt-to-equity ratio within 100% after the debt repayment of Four-Rivers Project is completed.
- Link between the medium-term financial plan and the single-year budget
- Prevention large-scale non-profit businesses by specifying investment decision criteria
  - (Past) When investment is inevitable due to public interest, etc., the board of directors decides
  - (Amendment) The conditions for decision-making on investment in public utilities are specified (an analysis of economic BC at the K-water level) and the project promotion is decided according to reasonable results
- Procurement of funds below the market rate, compliance with interest coverage ratio (1.0 or higher), appropriate cash management, operation of a strict separate accounting system, etc.
- Minimize water rate hikes as much as possible through management efficiency efforts such as cost reduction. etc.

In addition to the pay-go principle and the financial ratio goal, K-water's financial rules contain very detailed regulations such as the classification of profit and public project, each business selection standard, and the principle of separate accounting system. This K-water financial rule was selected as representative example of efforts to improve the financial structure of SOEs and reported to the National Assembly (MOEF, 2020). Since the introduction of the financial rules, K-water's achievements in improving its financial structure are remarkable. In particular, it is showing radical improvement in the financial structure even under the policy framework

that calls for a long-term water price freeze (since 2016) and strengthening public roles such as economic stimulus and job creation. These achievements are even more remarkable when compared with other SOEs' financial status. As such, the financial and non-financial performance of the introduction of financial management rule is very clear.

Table 8: Debt, debt ratio comparison (ALIO & K-water, 2022)

Sortation		2016	2017	2018	2019	2020	2021
Total SOEs	Debt (trillion won)	363	364	371	388	398	434
	Debt Ratio (%)	181.5%	177.6%	178.3%	183.0%	182.6%	194.0%
K-water	Debt (trillion won)	13.6	13.6	14.0	13.9	13.8	13.5
	<b>Debt Ratio (%)</b>	<b>204.8%</b>	<b>188.5%</b>	<b>179.9%</b>	<b>167.0%</b>	<b>152.6%</b>	<b>137.0%</b>

K-water has been the first public institution to enact financial management rule to stabilize its financial structure, and has achieved unrivaled financial results even in a policy environment that requires expansion of public roles. However, this achievement was possible thanks to the absolute will of the management including the CEO to improve the financial structure by complying with the financial rule and the consent of the government that approved the financial plan established in accordance with K-water's internal rule. If there was an objection between the management and the government, the financial rules may have been amended or repealed in the past. In this part, the limitations of the financial management rules, which are internal regulations of the institution, clearly appear. It is that binding force and enforcement are bound to be weak.

#### **D. Limitations of internal regulations**

The financial rules established by SOEs have their own values and advantages, but because they are only internal regulations, they have no external binding force. In addition, since it is an internal regulation that is not legally binding, the regulation may be relaxed or abolished at any time at the judgment of the management. In other words, it cannot function as a perfect means of coercing or opposing government decision-making. This is because the government is able to control virtually all decisions of public institutions through ‘Act on the Management of Public Institutions’, regardless of the internal regulations of SOEs. Currently, the Korean public institutions management system is structured based on ‘Act on the Management of Public Institutions’ enacted in 2007 (Park, 2018). This act, which is the basic law for the operation of SOEs, ostensibly guarantees the management autonomy and accountability of SOEs, but in reality, it is different. The role and scope of responsibility of the government and SOEs boards are ambiguous depending on the right to appoint directors of public institutions, the government's control over major board resolutions, management evaluation, and unclear supervisory authority of government ministries. The supervisory authority of the competent ministry is the biggest cause of lowering the management efficiency of SOEs and the efficiency of resource, as the competent ministry arbitrarily intervenes in the management of SOEs (Nam, 2015).

Therefore, it is difficult for SOEs to make complete autonomous management decisions. The core contents of the business are determined by the government's policy, not by the management judgment, and there are few parts that can be determined autonomously by the management of SOEs. Since administrative control of SOEs is overlapped by the Ministry of Economy and Finance and the competent ministries, the responsibility is unclear even if the

management performance of SOEs is poor (Song, 2015). In other words, even if SOEs themselves establish and operate important and reasonable regulations and standards, it is difficult to avoid direct instructions and interference from the government that legally guarantees transcendental authority over SOEs.

Here, it is necessary to examine the desirable governance structure of SOEs. In 2015, the OECD enacted and announced guidelines for governance structures for SOEs. The revised document of the OECD Guidelines (2015) is a standard that is not legally binding. However, the OECD guidelines suggest a desirable governance structure to prevent problems that may arise from the inherent characteristics of public institutions that simultaneously pursue publicity along with corporate activities under government ownership, unlike private companies that have market monitoring functions and generate profits (Park, 2018). The OECD guidelines are based on a clear distinction between guaranteeing the autonomy of SOEs and exercising government ownership, starting with a clear perception of the two challenges. In other words, excessive interference or political ownership intervention causes distortion of the operating responsibility of public enterprises, deterioration of accountability, and loss of efficiency, and passive ownership exercise does not provide incentives to SOEs to strive for profits (Park, 2018).

Although ‘the Act on the Management of Public Institutions’ reflects the basic gist of the OECD Guidelines, the act has a strong purpose of controlling SOEs, such as active ownership exercise and supervision. According to the table below, it is clear that the main contents of the OECD guidelines are included in the Act on the Management of Public Institutions. However, this Act is very abstract and declarative in terms of self-responsibility management of SOEs, and it guarantees the government's active exercise of ownership and supervision by placing regulations in terms of government control. According to this law, problems such as

overlapping control between responsible ministries for SOEs have arisen. In addition, the government is legally guaranteed a lot of control measures such as performance evaluation, board composition, and supervisory authority. Therefore, it is difficult to maintain the independence and binding power of SOEs' own regulations.

Table 9: OECD Guideline vs Act on the Management of Public Institutions (Reconstitution by author)

OECD Guideline (2015) on Corporate Governance of State-Owned Enterprises		Act on the Management of Public Institutions (current)	Problems of the Act
<b>Chapter 2</b> The state's role as an owner	<ul style="list-style-type: none"> <li>▪ Follow commonly accepted corporate norms</li> </ul>	<ul style="list-style-type: none"> <li>▪ Right to demand amendment: Management objectives &amp; mid-to long-term financial plans</li> </ul>	<ul style="list-style-type: none"> <li>▪ Focus on exercising authority</li> <li>▪ Overlapping control between ministries (MOEF &amp; Competent ministry)</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Allow SOEs full operational autonomy</li> </ul>		
	<ul style="list-style-type: none"> <li>▪ Respect SOE boards independence</li> </ul>	<ul style="list-style-type: none"> <li>▪ Right to appoint members of the board of directors</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Centralise the exercise of ownership rights</li> </ul>	<ul style="list-style-type: none"> <li>▪ Supervision of the competent ministry</li> </ul>	
<b>Chapter 5</b> Responsible business .	<ul style="list-style-type: none"> <li>▪ Observe high standards of responsible business conduct</li> </ul>	<ul style="list-style-type: none"> <li>▪ Conducting performance evaluation               <ul style="list-style-type: none"> <li>※ Possible to dismiss CEO based on results</li> </ul> </li> <li>▪ Management contract with CEO</li> </ul>	<ul style="list-style-type: none"> <li>▪ Evaluation items, standards, etc. led by the government (frequently changed)</li> </ul>
<b>Chapter 6</b> Disclosure & transparency	<ul style="list-style-type: none"> <li>▪ Board member qualifications, selection process, including board diversity policies, roles on other company boards</li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualification as candidate: A person with the necessary knowledge and experience and ability               <ul style="list-style-type: none"> <li>※ Absence of specific conditions</li> </ul> </li> <li>▪ Government reserves the right to appoint CEO</li> </ul>	<ul style="list-style-type: none"> <li>▪ Unclear qualifications, selection process closed</li> <li>▪ Government authority overrides board authority</li> </ul>
<b>Chapter 7</b> Responsibilities of the boards	<ul style="list-style-type: none"> <li>▪ Necessary authority, competencies</li> <li>▪ Ultimate responsibility for the enterprise's performance</li> <li>▪ Power to appoint and dismissal the CEO</li> </ul>		

According to a study on the improvement of the governance structure of SOEs (Song, 2017), it was pointed out that 'Act on the Management of Public Institutions ' follows the framework of the governance structure applied to private enterprises without considering the characteristics of SOEs. The government, which is a shareholder of SOEs, does not share its fate with the SOEs like the shareholders of a private company. Since the president or the heads of ministries have no interest in the deterioration of the financial structure of SOEs, there is a

greater incentive to focus on achieving short-term political goals through SOEs rather than improving the management efficiency. So the biggest problem with 'the Act on the Management of Public Institutions ' is to expect the government to play the same role as the shareholders of private companies (Song, 2017).

In addition, the board of directors is the organization that plays the most important role in the governance structure of SOEs. However, as shown in the table 8, it is quite contrary to OECD guidelines in qualifications, independence, responsibilities and duties, roles and authority. The current system makes it difficult to rule out the possibility of the formation of the board of directors by the influence of politicians in the ruling class and bureaucrats controlled by them. It is highly likely that people preferred by politicians and public officials, not people who will run SOEs efficiently, will be appointed as presidents or directors. Therefore, it is questionable whether the current system is appropriate for the appointment process of presidents, directors and auditors of public institutions to select the best qualified person to achieve maximum management efficiency of SOEs (Nam, 2015).

## **E. Implications**

As previously analyzed, no matter how excellent internal control measures are secured by SOEs themselves, the limitations are clear because internal regulations are not legally binding. It is necessary to legislate the establishment of financial rules for each SOE. The government will be able to predictively control SOEs by setting the financial limit of SOEs within a certain range, and SOEs will be able to engage in autonomous and responsible management activities within that range. The next section presents specific measures to implement this solution.

#### **IV. Policy proposal**

SOEs are different from private companies whose corporate value changes according to management performance or market evaluation. Since the management of SOEs is largely influenced by government policies, not by market control, the willingness to manage the financial soundness of SOEs is relatively low. Song Yang-ho (2017) suggested the possibility of introducing an internal control system such as the compliance support system under the Commercial Act and the introduction of a worker director system as a desirable way to improve the governance structure of SOEs. This paper suggests three measures by further specifying the introduction of the internal control system of these prior proposals.

Table 10: Summary of Proposal

Step 1	Establishment of legal basis for the internal control system of SOEs by amending the 'Act on the Management of Public Institutions'
Step 2	Introduction of financial rules for each institution according to the revised law
Step 3	Reinforcing the expertise, responsibility and authority of the board of directors, which operates the rules

##### **A. Establishment of legal basis for internal control system of SOEs**

In order to secure the financial soundness of SOEs, unpredictable and inconsistent external interventions must be blocked, and at the same time, internal control standards must be established that can reasonably control SOEs themselves. As mentioned in the above limitations, no matter how excellent the internal regulations are, they may be invalid under the current legal system. Therefore, practical alternatives are needed to strengthen the legal authority and basis for internal control measures.

Regardless of changes in the regime, it is necessary to consider the introduction of financial rules with legal grounds as a way for the independent management of SOEs. This is because



setting standards for the operation process of SOEs in advance can minimize unreasonable management interference by the government, and SOEs can prevent arbitrary management outside the scope. This is also a way to secure the consistency and legitimacy of government control of SOEs and strengthen the authority of self-responsible management of SOEs.

To this end, it is important to revise the 'Act on the Management of Public Institutions', the basis of the operation of SOEs, to provide a legal basis for the internal control system of SOEs. Measures are needed to strengthen the authority and binding force of the internal control system by applying the case of compliance management standards of listed companies based on the Commercial Act to the 'Act on the Management of Public Institutions'. In the case of the Commercial Act, standards and procedures for compliance control are required for listed companies of a certain size.

Table 11: Commercial Act (Article 542-13)

·Article 542-13 (Compliance Guidelines and Compliance Officers)

(1) A listed company determined by Presidential Decree in light of the scale of assets, etc. shall establish guidelines and procedures that their employees and directors must observe in order to abide by statutes and make the company appropriately when the employees and directors perform their duties (hereinafter referred to as "compliance guidelines").

It is noteworthy that executives and employees are required to prepare standards related to work performance in advance through compliance control standards (Song, 2017). It is necessary to introduce the compliance management standards based on the commercial law applied to such listed companies into the 'Act on the Management of Public Institutions'. In other words, it is to enact and manage financial rules based on laws. Arbitrary management can be prevented by forcing SOEs to introduce financial decision-making standards. It is to establish an institutional mechanism for those involved in financial management to act in accordance with special rules and enforce compliance with these rules by law. It is desirable to

apply this system first to SOEs that establish mid- to long-term financial management plans. As analyzed earlier, SOEs account for most of the public sector debt. It is proposed to add a new Article to the 'Act on the Management of Public Institutions' as follows.

Table 12: Proposal for new Article of the 'Act on the Management of Public Institutions'

<p>Article 00-0 (Financial Management Rule)</p> <p>① An institution that establishes a mid- to long-term financial management plan pursuant to Article 39-2 of the Act shall prepare financial management rule to be followed when operating an institution to maintain financial stability and efficiency through autonomous responsibility management.</p> <p>② Financial management rule under paragraph (1) shall include the following matters:</p> <ol style="list-style-type: none"><li>1. Procedures for establishing and changing financial management rule</li><li>2. Financial standards to be observed in the process of institutional operation, such as establishing a mid- to long-term financial management plan and compiling a budget.</li><li>3. Criteria for making investment decisions</li><li>4. ~ 9. ...</li></ol> <p>③ When establishing or changing financial management rule, a resolution of the board of directors and approval of the Ownership Steering Committee must be obtained.</p>
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## **B. Introduction of Financial Management Rules for SOEs**

Each institution must introduce financial management rule as prescribed by the higher statutes. It is to set the basic principles and standards for internal financial decision-making in SOEs in advance so that they can control themselves. As discussed in the previous case study, it is important for SOEs to establish internal control standards such as K-water's financial rule in order to maintain the permanent financial soundness. It is necessary to establish optimal principles that can maintain financial soundness to the extent that publicity as a public institution is not impaired.

Achievable and sustainable goals should be set according to the circumstances of each institution. The most important part here is that institutional-tailored financial management standards should be introduced considering the characteristics of each institution. It is not desirable to set a uniform goal for the entire institution.

Currently, K-water is the only institution that establishes and operates financial rules as a explicit regulation, but as shown in Table 11, there are separate standards applied to mid- to long-term financial management plans for each institution. Starting with the feasibility review of these financial standards currently operated by each institution, government ministries, related agencies, and related specialized institutions should all participate to prepare optimal financial standards for each institution.

Table 13: Current State of Financial Standards of SOC institutions (Arranged by author)

\* Reading and analysis of each agency's '17~'21 management performance evaluation report

SOC Institution	Enactment of company regulation	Application Criteria			
		Fiscal balance rule	Debt or Debt ratio rule	Expenditure rules	Income rules
K-water	●	○ Accounting pay-go principle	○ Limit the debt ratio		
LH		○ Balance of income and expenditure			○ Total profit management
Expressway		○ Balance of toll revenue and expenditure			
Korail				○ Annual expenditure limit	
Kogas				○ Limiting the Size of investment	

1) The application criteria are extracted from the data of 'Fiscal Sound System in Asian Countries' (Heo, 2019)

2) The standards of Korea Electric Power Corporation, Incheon International Airport Corporation, and Korea Airport Corporation were not identified.

It is necessary to apply fiscal balance rules, debt rules, expenditure rules, and income rules individually in consideration of the characteristics of each institution. For example, SOEs such as Korea Electric Power Corp. and Korea Gas Corp, which have a simple business area and have a large impact on revenue due to external variables such as rising oil prices and the COVID-19 situation, are reasonable to apply the expenditure rules (limiting the growth rate of expenditure). In addition, SOEs such as the K-water, the Land and Housing Corporation, and the Korea Expressway Corporation, where a certain level of operating cash flow is continuously generated, are reasonable to set fiscal balance and debt rules.

### **C. Strengthening the Board's expertise, responsibilities and authority**

It is necessary to strengthen the expertise, responsibility, and authority of the board of directors of SOEs. This is because even if the Act on the Management of Public Institutions was revised to secure the binding force of the financial management rules of SOEs, the decision-making body that operates financial management regulations is ultimately the board of directors of SOEs. CEOs and non-executive directors are expected to demonstrate their expertise to improve the performance of SOEs. However, in the situation of governance structure of SOEs in Korea, the board of directors has not yet been given sufficient authority to play an independent and autonomous role. And it is criticized for its lack of professionalism. In compliance with the OECD guidelines, it is necessary to innovatively improve related laws and systems.

Table 12 compares and analyzes the OECD guidelines and the current status of the board of directors of SOEs by professionalism, responsibility, and authority parts. Through this, several improvement measures were drawn for each field.

Table 14: OECD Guideline (2015) and Actual Operational Status & Problems (Reconstitution by author)

Sortation		OECD Guideline	Actual Operational Status & Problems in Korea	Proposal of improvement measures
Professionalism	Qualifications	Specific qualification requirements	Unclear qualification requirements (abundant knowledge and experience, etc.)	Clarify qualifications and career standards (such as competence, experience, and achievement)
	Independence	Transparency in the selection process / Elimination of political influence	Candidate recommendation ~ Selection process not disclosed / Operation of a perfunctory executive recommendation committee system	Exclusion of tacit intervention by the government and political parties (publicly proceeding through established procedures) / Disclosure of appointment process
Responsibility	Assessment	Evaluation of performance	Reflecting 'Board Operation Efficiency' as part of non-quantitative evaluation items in management evaluation	Prepare evaluation criteria and conduct self-evaluation under the supervision of the chairperson / Linkage between evaluation results, remuneration, and term of office
	Obligations	Responsibility for corporate performance / Equal legal responsibility among directors	Limited Board Liability	Establishment of a remuneration system at the private level (motivation) / Assignment of final responsibility for poor management
Authority	Roles	Clear Legal definition of the role of the board of directors	The authority of the MOEF and the competent ministries overwhelms the authority of the board of directors.	Clarification of roles and powers between government and the board of directors
	Power	Strategy setting and supervision based on government objectives / Right to appoint and dismiss the CEO		

The qualification requirements must be strengthened by clarifying the competency, experience, achievement, and career standards of the board members. The exercise of influence by political

parties and governments should be carried out through public regulations and procedures, and the disclosure of the appointment process should also be expanded. In addition, evaluation standards for the board of directors should be established and linked to remuneration and term of office. It is also necessary to design a remuneration system suitable for responsibility to grant final responsibility for poor management, and to clarify the role and authority between government and the board of directors. Efforts will be needed to specifically establish the rights of ownership subjects and the scope of intervention.

## **V. Conclusion and further research**

### **A. Conclusion**

Korea is a country with a very large debt of SOEs compared to the size of the national economy. In addition, these SOEs debts are expected to increase more in the future as the birth rate declines and the aging population increases. Changes in the demographic structure are expected to lead to an increase in public debt along with the expansion of public services supplied by SOEs, mainly residential facilities and transportation (Hwang, 2021). If there is a means to properly regulate the debt problem of SOEs, the seriousness of the problem can be alleviated, and it will be possible to maintain the permanent financial soundness of SOEs.

The introduction and operation of financial management rule by SOEs is very positive in that they can induce them to control themselves by setting basic principles and standards for financial decision-making within in advance. Through this study focused on case studies for K-water, the effectiveness of the financial management rule was proved. And in analyzing the limitations, the cause of inefficiency in terms of governance structure for SOEs was analyzed by comparing the OECD Guidelines with laws and systems on the operation of domestic SOEs.

Three steps of measures were proposed to maximize the effectiveness of the financial management rule of SOEs and minimize limitations. First, the direction of revising the Act on the Management of Public Institutions was proposed so that each institution's financial management rules could be operated on a legal basis, and it was suggested that optimal financial rules should be introduced considering institutional characteristics. In addition, measures to improve the operation of the board of directors of SOES, the highest decision-making body that operates financial management rules, were also reviewed.

Introducing financial management rules to SOEs can be the first step in self-responsible management of SOEs and a representative means of innovation policies of SOEs. If the three proposals presented here are well combined and operated, it will help establish a more efficient and transparent governance structure for SOEs and secure financial soundness.

## **B. Further research**

The improvement plan proposed in this paper has a limitation in that it does not provide clear criteria for the type and scope of financial standards to be introduced in consideration of the situation and characteristics of each institution. Further research is also needed on the reasonable public utility rate system, which has the greatest impact on the financial soundness of SOEs and is one of the main factors in complying with financial management rules. In addition, in connection with the introduction of financial rules, further research on management performance evaluation methods and indicators to establish financial soundness of SOEs is also an important issue.

## References

- Heo, Kyung-sun. (2019). *Fiscal Soundness Systems in Asian Countries - Focusing on Debt Management*, Korea Institute of Public Finance.
- Hwang, Sunjoo. (2021). *A Study on the Improvement of Debt and Bond Problems of State-Owned Enterprises*, *KDI FOCUS No.106*.
- Ministry of Economy and Finance. (2015). *A plan to support K-water four major rivers project debt*, Open documents of the National Policy Coordination Council.
- Ministry of Economy and Finance. (2016). *Press Release on the contents of the main discussion of the 10th Anniversary Academic Symposium on the 'Act on the Management of Public Institutions'*.
- Ministry of Economy and Finance. (2020). *Press release on mid- to long-term financial management plan of public institutions in '20~'24*.
- Nam, Il Chong. (2015). *Governance of commercial SOEs in Korea: Main issues and a proposal for reform*, Korea Development Institute (2015-16).
- OECD. (2015). *OECD Guidelines on Corporate Governance of State-Owned Enterprises*, 2015 Edition, OECD Publishing, Paris.<http://dx.doi.org/10.1787/9789264244160-en>
- OECD. (2018). *Professionalising Boards of Directors of State-Owned Enterprises: Stocktaking of National Practices*.



Park, Hanjun. (2017). Principles and Policy Issues of the Board of Directors of State-Owned Enterprise, *OECD Publishing*(Boards of Directors of State-Owned Enterprises), *Translated by Park.*

Park, Hanjun. (2018). ‘Key Contents and Implications of OECD Guidelines on Corporate Governance of State-Owned Enterprises’, *Finance Forum* 262(0): 6-23.

Shin, Mincheol and Cho, Taejun. (2013) ‘Alternatives for development of internal control system in the public sector’, *Korean public personnel administration review* 12(1) : 169~193.

Song, Okrial. (2015). ‘Transparency and Accountability of Public Enterprises’ Financial Structure’, *Journal of Law & Economic Regulation* 8(2): 55-69.

Song, Yangho. (2017). ‘A Study on the Improvement of Corporate Governance of State-Owned Enterprise’, *Korea Economic Law Association* 16(1): 151-171.

The Board of Audit and Inspection. (2018) Audit report on the four major rivers project.

< Website >

All Public Information In-One. (<http://www.alio.go.kr/>, Last access: 2023. 1. 04).

Korea Fiscal Information Service. (<https://www.openfiscaldata.go.kr>, Last access: 2023. 1. 04).

Korean Law Information Center. ([www.law.go.kr](http://www.law.go.kr), Last access: 2023. 1. 04).