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Research on Listed State-Owned Enterprises in Major Foreign Countries

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Introduction

An ordinary state-owned enterprise (SOE) is defined as an enterprise with 50% or more government ownership, or 50% or more government voting rights, and which operates in a commercial market. When an SOE is publicly listed, it means that some or all of its shares owned by the state are allowed to transact in capital markets. If this transaction results in government ownership less than 50%, enterprise control is handed over to the private sector. This, then, can be deemed privatization; if not, the enterprise remains an SOE. However, when there are various shareholders added through this process, other than the state, many foreign cases reveal that it is difficult to classify the enterprise as an SOE or a privatized one based on government share. As stated, listed SOEs refer to enterprises with 50% or more government ownership, but there are many cases when even with the state's share less than 50%, the enterprise remains an SOE. In some other countries, there are many cases in which the enterprise is still operated as an SOE. For example, when the state's share is less than 50%, but it has 33% or higher shares, and practical voting rights; when even though the state's share is small, it is still the largest among all shareholders; and, when the state has protective measures of control such as a golden share. In addition, we can find cases where the state executes only its rights as a shareholder, maintaining very small shares for investment purposes.

By listing an SOE, the government can expand the state's finances by selling shares while simultaneously maintaining ownership and control, thereby accomplishing its mission for the public interest. Considering the political resistance that exists against privatization due to the perception of the abandonment of the public interest, the public listing of an SOE, in which the government still owns a certain amount of shares and executes control, is readily received as a method with higher political acceptability. It is also preferred by public organizations that have future ongoing investment plans because these listings facilitate funding for their investments through capital markets. Moreover, by listing public institutions with excellent financial results, this is expected to attract the capital market.

In Korea, by 2015, 316 organizations were designated and operated as public organizations under the Law on Operation of Public Organizations. Among these, KPECO, Korea Gas Corporation, KEPCO E&C, Korea Plant Service & Engineering, Korea District Heating Corporation, the Small and Medium Industry Bank, Kangwon Land, and Grand Korea Leisure are currently listed in the securities market. However, all these SOEs are controlled by the government in the same manner as unlisted SOEs. These controls follow the Law on Operation of Public Organizations and the designation as public organizations, the design of management structure, the selection and dismissal of executives, the operation of the board of directors, and the management assessment, monitoring, and supervision of businesses are controlled in the same manner as unlisted SOEs. Under the Law on Operation of Public Organizations, the eight publicly listed organizations are divided into two categories. KEPCO, Korea Gas Corporation, and Korea District Heating Corporation are classified as SOEs, and KEPCO E&C, Korea Plant Service & Engineering, the Small and Medium Industry Bank, Kangwon Land, and Grand Korea Leisure, which are financial institutions, or have shares owned by other public institutions, are classified as other public institutions.

As discussed, listed public institutions are not specifically classified or managed, even if their scale and significance are large. In addition, although they are all listed as SOEs, they are categorized as SOEs and other public institutions; thus, their levels of supervision and regulation are extremely different. For listed SOEs, management of profitability and company value are especially important; however, in Korea, no significant attention is paid to them. In particular, it appears that after the enterprise is listed, the autonomy of the company’s operation does not change significantly (Han-joon Park · Kyung-sun Heo, 2014). This is appears to be because ”listing” is not considered significant in the designation and management of public institutions. There is enormous interest in listing such organizations to supply government funding and improve the efficiency of public organizations, however, this interest appears to wane after the listings.

As in Korea, in other countries listed SOEs are still included among designated SOEs, and are controlled by various methods. In this paper, we discuss SOE listings in major foreign countries and examine their background and goals. We also look at their designated status and issues regarding the control of listed SOEs to analyze how the management of SOEs is handled in these countries. We also examine whether profitability increases after the listing, what methods are used to maintain the publicity and the control and influence of the government in the enterprise, and what different control methods are used compared to unlisted SOEs. As a result, we expect to better understand the status of such SOEs in major foreign countries as well as how they are managed.

Among OECD member nations, listed SOEs are in various industries, however, enterprises in the energy industry are among those most frequently listed. In the energy industry, the two goals, achieving public benefits by the stable provision of energy, and securing operational and investment profitability for the enterprise, often collide. In Korea, five of the eight listed SOEs are in the energy industry. Therefore, by studying listed SOEs in the energy field in foreign countries, we expect to discover new ways to better balance and manage public benefit and profitability.

This paper presents our study of cases in four different countries (France, Finland, Norway, and New Zealand), which have many listed SOEs, where listings occur often, and the characteristics of managing the SOEs are different. We investigate the status of the listed SOEs in each country and how each government manages them. In addition, we examine the background and goal of each listing, the process and issues in the listing, the changes and effects after the listing, and issues in operating listed enterprises. We focus, in particular, on the goal of managing listed SOEs, balancing public benefits and profitability, and methods of executing stockholder rights by the government.

To study listed SOEs in foreign countries, we collected and analyzed the reports of the OECD SOE task-force, annual reports from each country's SOEs, information on the website of each enterprise, and their financial information.

To closely investigate the management of the enterprises by the governments, we personally visited the countries and interviewed the officers in charge of managing the enterprises themselves. After analyzing these other SOEs and how they are managed, this paper then concludes by suggesting methods for improving the management of listed SOEs in Korea.

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The Concept and Background behind Listing SOEs

1 Ownership and Listing of the SOE

An SOE is generally defined and operated differently in each country, but normally, it is defined as an entrepreneurial organization, with some shares owned by the government, which operates in the commercial market. According to the OECD SOE Management Structure Guideline, an SOE is defined as a "Legal Enterprise whose Ownership is Executed by Government," (OECD, 2015, p. 14). Government ownership means either the government owns more than half of the enterprise, or it executes more than half of the voting rights. Privatization, which began in the mid-1980s worldwide, applies the autonomous market principle by transferring ownership and control to the private sector; its purpose was to improve efficiency, business rationalization, and expand financing income. There are roughly two methods for disposing government shares. The first is to directly sell shares to buyers who are looking to obtain them. This method is used among small SOEs, where such sales are easy, or when it is difficult for the enterprise to sell shares in the capital market. The second is to sell shares through the capital market. This method may disperse the ownership by selling many shares to unspecified individuals, and as the process is transparent in the market, any controversy over favoring sales to certain enterprises is reduced.[1)]

1) Soo-keun Oh, 「Case Analysis and Implication of SOE Selling Methods」, 『CFE Report』, 54th ed.,

If the government sells more than half of its shares so that the private sector owns more than 50% and controls the SOE, we can say that the enterprise is privatized. If the government maintains more than 50% of the shares, it is still treated as an SOE. Listing an SOE is one of the methods of selling the government's SOE shares. This method sells SOE shares via transactions in the capital market. If the government has more than 50% of the shares after the listing, it is still seen as a listed SOE . Among the characteristics of the listed SOEs are that their shares are owned by many shareholders, such as the government and individuals, and that these shares are transacted in the capital market. This means greater efficiency is implemented as the enterprise acts more like a private enterprise with some shares now owned by private investors. At the same time, transparency and accessibility to capital occur as the shares are now transacted in the capital market. However, such cases are different from privatization where full control is transferred to the private sector in that the government still has more than 50% of the shares and full voting rights; thus, the influence of government is retained.

〈Table II-1〉 **Categorization of Enterprises According to Ownership and Listing**

Listed / Ownership/control	Listed	Non-listed
SOE	Listed SOE	Non-listed SOE
Private Enterprise	Listed Private Enterprise	Non-listed Private Enterprise

Depending on the extent of privatization, it can be categorized into "full privatization" and "partial privatization." Cases where both ownership and management rights are transferred to the private sector are considered full privatization, whereas cases where the shares are gradually sold (due to difficulties in selling all at once), or where only some shares are sold are called partial privatization.[2] Partial privatization is deemed as a first step toward full

2) Korea SOE Academy, 『Research on Amending Relative Laws to Promote Privatization』, Ministry of Strategy and Finance Service Report, 2008, p.15.

privatization, but sometimes, it is the final goal. In other words, by selling some of the government shares, "mixed ownership" is implemented.[3] Under mixed ownership, it is often difficult to judge who has control of the enterprise. Even with less than a 50% ownership share, if the government is the largest shareholder, or can execute more voting rights than its shares represent, the enterprise can be operated as an SOE.

Partial privatization or mixed ownership has the following advantages: first, a relatively small number of shares are sold, meaning, it is an easy sale and the amount can be controlled depending on the condition of the stock market; second, for policy industries, the government can still influence the enterprise even after selling its shares; third, because the government retains shares, further funding can be obtained by selling the remaining shares in the future (Korea SOE Academy, 2008, p.70); fourth, because government control and public branding are retained, there is less political resistance than to other privatizations. In privatizing SOEs of businesses with extensive public brand awareness, the public may perceive negative side effects such as the raising of public utility charges, the abandonment of public businesses, and the loss of jobs.[4] Therefore, partial privatization, which sells some of the government shares, but is still operated by the government, can have higher political tolerance.

In the past, partial privatization was accepted as a first step to full privatization, but now, partial privatization has become the end goal of a mixed ownership model for listing SOEs. Many SOEs have been privatized since the 1980s, when privatization was the going trend. However, more recently, the mixed ownership model has become preferred as an alternative to energize the remaining SOEs and to introduce the market principle. The most preferred method to achieving the mixed ownership model is by listing stocks; through this method, the shares can be sold in the capital market.

Among the characteristics of introducing the mixed ownership model by listing an SOE is that government ownership and control are maintained even

3) Korea SOE Academy, 『Research on Amending Relative Laws to Promote Privatization』, Ministry of Strategy and Finance Service Report, 2008, p.70.

4) Min-jung Lee · Soo-yeon Lee · Ho-young Lee, 「Case Study on Partial and Full Privatization of SOEs - Focus on Korea Gas Corporation and KT&G」, 『Yonsei Business Research』, 46the-2,pp.245~277.2009.

if the stock is continuously traded. By legally clarifying the minimum number of government shares, a mandatory clause on government shares is established. This then ensures that the SOE will be operated under government influence. Moreover, even if the government share is less than 50%, various protective measures can be used to maintain the government's control. To prevent aggressive mergers and acquisitions (M&A) or to protect the government's decision-making authority, methods such as a golden share, a dual class voting system, a public shares policy, a stable stockholders system, a limit on single shareholders, and/or a state-owned holding company system can be used.

2 Background and Aim of Listing SOEs

Since the 1980s, privatizing SOEs has occurred worldwide, and the listing of SOEs has been promoted as a method of privatization. Some of the listings pursued full privatization, but others pursued partial privatization, maintaining the governments' influence by keeping a certain amount of government ownership. Recently, some of the listings have pursued mixed ownership by selling some shares to the private sector, and maintaining government shares. Recently, the OECD has been increasingly interested in the listings of SOEs, and it has been collecting and analyzing cases of listed SOEs among its member countries (OECD, 2014c). OECD classifies the goals of listing SOEs into eight categories in member countries. These member countries aim to: improve results by introducing market principles, develop the capital market and utilize the stock market, maximize privatization profit and expand capital, draw funding for SOEs, improve SOE transparency and efficiency, exclude SOEs from a public expenditure limit, enhance SOE levels of management structure, and encourage private investment in the stock market. After the listings, areas and activities within the enterprises will change. Enterprises will: pursue marketability, reinforce accessibility to funding and investment, create the independence of their board of directors, manage public awareness, transparency, dissemination of information, SOE social responsibility, and government influence.

〈Table II-2〉 **Goals of Listing SOEs and Areas of Change after Listing, Classified by OECD**

Goals of Listing	Areas to Change after Listing
1. Improve achievement by introducing market principles	1. Pursue marketability 4. Publicness 7. Government influence
2. Develop capital market and activate stock market	
3. Maximize privatization profit and expand capital	
4. Draw fund for SOEs	2. Reinforce accessibility to fund and investment
5. Improve transparency and efficiency of SOEs	5. Transparency and release of information
6. Exclude SOEs from public expenditure limit	
7. Enhance level of management structure	3. Independence of board of directors,
8. Encourage private investment in stock market	
9. Others	6. Social Responsibility of SOEs

Data: OECD, 2014c. p.11, p.20

3 Status of Listed SOEs in OECD Member Countries

From the 1980s to the 1990s, there was a wave of privatization worldwide and many SOEs became privatized during this timeframe. This caused a rise in public utility charges and pricing, and due to such side effects, political resistance. Thus, there were significantly less privatizations in OECD member countries after the mid-2000s. On the other hand, the mixed ownership model has been spreading using SOEs listings, maintaining responsibility for the SOE public benefit while introducing greater efficiency and competency from the private sector. Since 2005, France has been listing its major SOEs such as EDF, ADP, Engie (GDF Suez), and Areva. In this process, it has clarified in law that the government will maintain 70%, 50%, and 33% of shares in EDF, ADP, and Engie (GEF Suez), respectively, so the government can maintain its control.[5)] New Zealand began SOE innovation after 2012, aiming for mixed ownership

5) France APE employee interview(2015.11)

by listing the three largest power companies while the government maintained more than half of their shares. In this case, it was clarified by law that the government would maintain more than 50% of the shares.[6)]

According to a report published by the OECD (OECD, 2014c), out of 31 OECD member countries, 20 listed SOEs in 2012. Australia, Canada, Estonia, Germany, Ireland, Israel, Japan, Mexico, the Netherlands, Portugal, and Sweden have revealed that they do not have listed SOEs with government shares higher than 50%. Among the 20 countries that have reported listed SOEs with government shares higher than 50%, Korea (8) has the most, followed by Italy (7), Poland (6), Turkey (6), Greece (5), Slovenia (4), Chile (3), Finland (3), France (3), Norway (3), the U.S. (2), and Austria (2). New Zealand, which only had one listed SOE with government shares higher than 50% in 2009, listed three more SOEs since then, and as of 2015, had four listed SOEs with government shares more than 50%.

〈Table II-3〉 **Status of Listed and Non-listed SOEs in each OECD Member Country**

(unit: $billion)

Nation	Listed SOEs with More than 50% of Shares Owned by Government			Non-listed SOEs with More than 50% of Shares Owned by Government			Statutory or quasi corporations			Total		
	No.	Employees	Company Value	No.	Employees	Company Value	No.	Employees	Company Value	No.	Employees	Company Value
Australia	–	–	–	5	9,288	7.4	10	40,657	10.9	15	49,945	18.3
Austria	2	26,281	11.1	6	47,872	9.7	1	8	1.2	9	74,161	22.1
Belgium	1	15,859	9.1	7	72,617	1.1	–	–	–	8	88,476	10.2
Canada	–	–	–	–	–	–	47	86,558	28.3	47	86,558	28.3
Chile	3	268	1.1	7	4,778	3.5	24	43,854	17.6	34	48,900	22.2
Czech	1	31,300	18.6	89	33,900	12.5	35	75,100	9.2	125	140,300	40.3
Denmark	1	621	0.1	10	8,867	8.2	6	13,335	3.6	17	22,823	11.9
Estonia	–	–	–	29	16,046	3.6	24	9,170	1.9	53	25,217	5.4
Finland	3	21,761	19.8	37	60,916	15.6	2	2,083	8.8	42	84,760	44.2
France	3	165,477	45.1	34	309,109	45.2	20	1,109,915	21	57	1,584,501	111.4
Germany	–	–	–	71	349,197	46.6	1	6	0.7	72	349,203	47.3

6) New Zealand Department of Treasury Commercial Operating Group Employee Interview (2015.10)

〈Table II-3〉 **Continue**

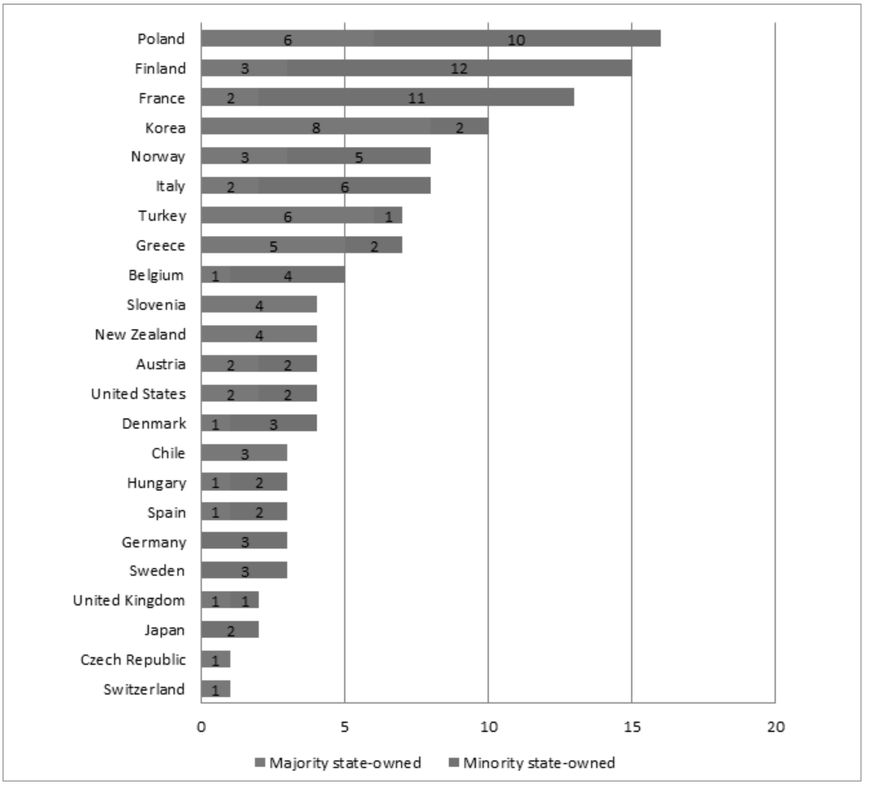
Nation	Listed SOEs with More than 50% of Shares Owned by Government			Non-listed SOEs with More than 50% of Shares Owned by Government			Statutory or quasi corporations			Total		
	No.	Employees	Company Value	No.	Employees	Company Value	No.	Employees	Company Value	No.	Employees	Company Value
Greece	5	17,755	2.2	47	27,503	10.8	–	–	–	52	45,258	12.9
Hungary	1	1,920	0.1	370	123,004	6.6	–	–	–	371	124,924	6.6
Ireland	–	–	–	24	39,582	31.9	–	–	–	24	39,582	31.9
Israel	–	–	–	34	54,959	48.9	–	–	–	34	54,959	48.9
Italy	7	276,892	157	10	250,019	69.2	–	–	–	17	526,911	226.1
Japan	–	–	–	8	37,493	185.4	16	26,680	153.9	24	64,173	339.3
Korea	8	42,607	41.4	49	86,628	159.5	–	–	–	57	129,235	200.9
Mexico	–	–	–	46	..	3.2	23	..	80	69	..	83.2
Netherlands	–	–	–	26	78,286	60.3	–	–	–	26	78,286	60.3
New Zealand	1	7,631	0.8	15	18,861	11.5	2	4,596	2.8	18	31,088	15.1
Norway	3	63,187	108.6	25	49,261	105.3	17	108,597	29.8	45	221,045	243.7
Poland	6	36,074	27.8	295	117,738	31.1	25	5,918	2.6	326	159,730	61.6
Portugal	–	–	–	33	70,981	10.7	51	100,553	–3	84	171,534	7.7
Slovenia	4	11,502	1.5	35	40,537	11.2	–	–	–	39	52,039	12.6
Spain	1	20,358	1.3	44	10,787	1.4	8	64,444	2.8	53	95,589	5.5
Sweden	–	–	–	46	132,727	49.2	3	2,881	1.8	49	135,608	51
Switzerland	1	19,514	21.7	1	7,739	0.9	2	73,845	17.1	4	101,098	39.7
Turkey	6	46,755	26.2	39	188,145	57.5	5	11,171	7.1	50	246,071	90.8
United Kingdom	1	137,200	57.5	11	16,804	7.7	5	178,597	1	17	332,601	66.2
United States	2	1,045	0.1	1	20,000	6.2	16	577,965	7.2	19	599,010	13.5
Total	60	944,007	551.1	1,454	2,283,644	1021.9	343	2,535,933	406.3	1857	5,763,585	1979.1

Data: OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. pp.12~13.

For listed SOEs with minor shares, where the government has between 10% and 50% ownership, Finland and France rank among the top, with 12 and 11, respectively, followed by Poland (10), Italy (6) and Norway (5). For listed SOEs with more than 10% of government shares, Poland (16), Finland (15), France (13), Korea (10), and Norway and Italy (8 each)[7] are included.

7) Statistics are based on the numbers from OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. pp.18~21. The numbers of New Zealand, Finland, France and Norway are updated with numbers from annual reports of the latest year.

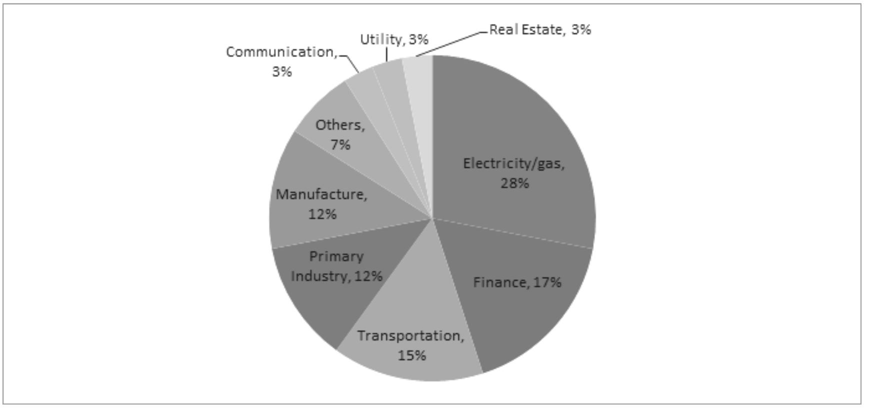
[Figure II-1] No. of Listed SOEs for Each OECD Member Country



Data: Graph created using OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. pp.18~21 by the author. The Data of New Zealand, Finland, France, and Norway have been updated with numbers from recent annual reports.

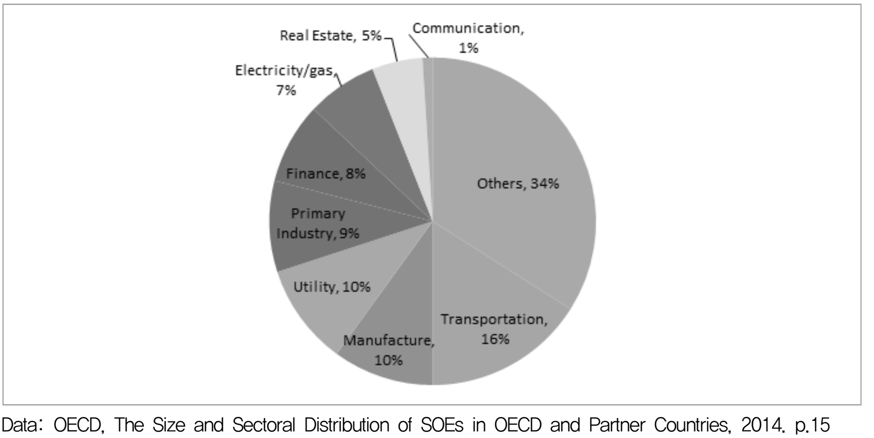
If we classify OECD members' listed SOEs by field, electricity/gas/energy is the major field for SOEs with government shares more than 50%. Out of 60 listed SOEs, 17 (28.3%) are in the electricity/gas/energy field, accounting for 37%, of SOE employees and 46.9% of the SOE values. The next industries in order are finance, transportation, and manufacturing. In terms of number of employees and enterprise value, the finance industry ranks high . Among non-listed SOEs, transportation is the highest in terms of number of employees and enterprise value, with 39.5% and 23.1%, respectively. Among quasiovernment organizations, public organizations in transportation account for 38.4% of employment and company value of 13.4%, both the highest in these categories.

[Figure II-2] Proportion of industries of listed SOEs with greater than 50% government share among OECD member countries (no. of organizations)



Data: OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. p.15

[Figure II-3] Proportion of industries of all listed SOES among OECD member countries (no. of organizations)



Data: OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. p.15

〈Table II-4〉 **Status of SOEs of OECD Member Countries in Each Field (end of 2012)**

(unit: $billion)

	Listed SOEs with gvmt. shares less than 50%			Non–listed SOEs with gvmt. shares less than 50%			(Statutory or quasi corporations)[2)]			Total		
	Company	Employee	Company Value	Company	Employee	Company Value	Company	Employee	Company Value	Company	Employee	Company Value
Total	60	944,007	551.0	1454	2,283,645	1022.7	343	2,535,933	465.4	1857	5,763,585	2039.2
Primary Industry	7	114,896	104.7	143	91,497	31.0	25	36,256	53.0	175	242,649	188.7
Manufacture	7	128,330	12.9	147	119,720	22.5	23	32,228	1.0	177	280,278	36.4
Finance	10	202,613	85.3	95	112,703	204.4	47	46,874	217.1	152	362,190	506.8
Communication	2	71,764	55.9	10	10,569	3.3	4	1,907	1.5	16	84,240	60.7
Electricity/gas	17	349,639	258.3	100	189,894	215.4	6	14,823	46.2	123	554,356	519.9
Transportation	9	65,170	16.4	229	902,685	235.7	52	974,478	62.4	290	1,942,333	314.5
Utility	2	2,803	0.6	157	282,942	184.2	34	822,430	9.0	193	1,108,175	193.8
Real Estate	2	1,896	7.2	85	4,306	19.3	13	6,289	7.7	100	12,491	34.2
Others	4	6,896	9.7	488	569,328	106.8	139	600,648	67.7	631	1,176,872	184.2

Data: OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014, p.15

Note: 1) Company value for listed companies is measured by market value, for non–listed is ledger value. 0 is given to any missing values.

2) 31 countries out of 34 OECD member countries are in the data. Iceland, Luxembourg, and Slovakia are excluded due to lack of data. Partner countries, Colombia, Latvia, and Lithuania were excluded for using individual national table.

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Listed SOEs in Major Foreign Countries

In this chapter, we will cover the status and management of listed SOEs, and the changes that occurred after the listings in France, Finland, Norway, and New Zealand. These four countries have a large number of listed SOEs, different management methods, and large-scale SOEs in the energy field. France and Finland have a central SOE management system, with certain departments executing ownership of the government SOEs. In France, the APE (“Agence de Participations de l’Etat”) under the Economy, Finance and Industry department, and in Finland, the SOE Management Department in the prime minister’s office manage their SOEs. In Norway, on the other hand, SOE management is diffused among various departments, with the SOE Management Department under the Ministry of Industry in charge of general management. In New Zealand, the competent authority and SOE department of the SOE handles its ownership, while the Commercial Operations Group under the Department of Treasury helps the competent authority execute the ownership of commercial SOEs. In France, Finland, and Norway, SOEs with government shares more than 50% as well as SOEs with minor government shares are under government control. In France, APE controls SOEs with minor government shares directly, and in Norway, such SOEs are directly controlled by each department. In Finland, SOEs with government shares less than 50% are managed by Solidium, a holding company.[8] Even if the government has minor shares,

8) Status and management characteristics of each country’s listed SOEs come from annual reports of from each nation on their SOEs.

if it is the largest shareholder, or has more than 33%, the government retains control, so such enterprises can still be deemed SOEs, but in some cases, the private sector has control of these. In particular, for companies controlled by Finland's Solidium, the government only owns minor shares, and thus, these enterprises are private enterprises controlled by the private sector. Therefore, in France and Finland, along with the traditional "SOEs" with government shares or voting rights of more than 50%, enterprises with minor government shares for strategic, investment purposes or in the process of privatization are classified as SOEs as well.

〈Table III-1〉 **Status and Management Characteristics of SOEs for Each Country**

Country	Characteristics	Listed SOEs	
		Major Shares	Minor Shares
France	• Large number of listed SOEs • Centralized ownership • Investment Corporation under Economy, Finance and Industry Department • Maintains government control (dual class voting rights, poison pill, golden share)	2	11
Finland	• Large number of listed SOEs • SOE Management Department under the prime minister's office • Controls listed SOEs with minor shares via holding company (Solidium) • Maintains government control (dual class voting rights)	3	11
Norway	• Ownership executed by department • SOE Management Department under Ministry of Industry • Large number of listed SOEs and SOEs in energy field	3	5
New Zealand	• Actively promotes new listings in Mixed Ownership Model policy • Competent authority and department of SOE have ownership. Commercial Operations Group under the Department of Treasury manages commercial SOEs.	4	0

Data: Annual Report on SOEs from Each Country, OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. p.15.

1 France

In France, there is a wide range of SOEs, and due to its historic tradition of government engagement in economic development, the government has shares of many commercial enterprises. Privatization of SOEs in France are driven by the government, and large-scale privatization has been carried out regularly from 1986 to the mid-2000s. Through this privatization, about 50 companies in the telecom, banking, and manufacturing industries have been privatized. During that time, privatization was generally implemented to supply funds to help reduce government debt.

France established the APE under the Ministry of Economy, Finance and Industry in 2004 to concentrate government ownership. APE is in charge of exercising the government's stockholder rights, and to maximize the company value of these organizations, actively supporting the operations of affiliated organizations. It is also in charge of appointing the board of directors, determining dividends, and managing results. At the end of 2014, the APE oversaw government ownership of 77 strategically important enterprises.[9] Government ownership is divided into three categories; 100%, major, and minor. Thirteen listed SOEs are included among the public organizations managed by the APE, and two of these are categorized as major, while the other 11 are minor.

Recently, the SOE listings in France have been implemented with different goals in mind. SOE listings after the 2000s require "minimum stock retention," and pursued mixed ownership, not privatization. As previously explained, ADP, listed in 2006, has a 50% minimum stock retention by government stated in the law, while EDF (listed in 2005) has 70%, and Engie (GDF Suez, listed in 2005) has 33% as their minimums. These enterprises, with minimum retention limits set by law, need amendments to lower the government share.[10] The reason the government retains one third or more shares for listed SOEs is because most decisions at the board of directors' meetings require a two thirds or more voting majority. Therefore, by retaining one third or more ownership, the

9) APE, "The Government as Shareholder 2014-2015," France, 2015a.p.10.
10) Interview with France APE (2015.10).

government can reject major decisions that it disapproves of.[11)]

Just like other ordinary listed enterprises, the commercial and monetary finance laws apply to listed SOEs as well. The management structure and capital transaction of listed SOEs are ruled by the Ordinance 2014-948 on Corporate Governance and Equity Transactions in Publicly Owned Companies[12)], passed in August 2014. This ordinance comprises the fundamental laws for the operation and management structure of commercial enterprises that retain government shares of more than 10%. More than anything, it limits the government's role in listed SOEs as a shareholder similar to a private shareholder. First, this law amended existing laws in order to allow the government to have practical influence as any private shareholder. Articles detailing the scale of the board of directors and term of directors were abolished, and by clarifying the roles of representative directors of government, the government was placed in the same position as a private shareholder. Additionally, when the government appointed a director, it was now required that it appoint someone with higher qualifications. Second, the applied management structure corresponded to corporate law. That is, a representative director of government was determined in the general shareholders' meetings, and it was clarified that the government director would participate on the board of directors. However, as before, the proportion of representative directors among employees is higher than among private enterprises, and fields with strategic interests of the government, such as defense, are protected.

Since 2013, the French government has continuously sold government shares of SOEs to reduce its debt in public sectors and to supply funds. A main interest of the French government in listing SOEs is to protect its control over the SOEs.[13)] The systems used by the French government to protect its control are dual class voting rights and golden shares. Dual class voting rights grant one or more vote per share. In France, the Florange Act, which passed in March 2014, was applied as of March 2016. This law automatically grants dual voting

11) Interview with France APE (2015.10).

12) Ordonnance n° 2014-948 du 20 août 2014 relative à la gouvernance et aux opérations sur le capital des sociétés à participation publique; Articles 4, 6, and 7.

13) Interview with France APE (2015.10).

rights per vote to long-term (two years or more) stockholders. Unless more than two thirds of the shareholders object in the general shareholders' meeting, this law is applied. Therefore, the French government strategically buys shares to secure one third or more voting rights. To ensure that the Florange Act passes in general meetings, the French government is buying shares in relevant SOEs. By buying an additional 4.73% of Reno Automobile, it now owns 19.74% (23.22% in terms of voting rights), and by buying additional shares of Air France KLM, its share increased to 17.58% from 15.88%. Because the government needs

〈Table III-2〉 **Detailed Status of Listed SOEs in France**

(Unit: $billion, %)

Classifi-cation	Direct Gvmt. shares	Company Name	Field	Listed year	Market value	Employees	Form of Possession
Major	84.4%	Electricite de France SA (EDF SA)	Energy	2005	51,373	148,024	
	50.6%	Aeroports de Paris SA	Transportation	2006	12,005	8,966	
Minor	1.1%	CNP Assurances SA	Finance	1998	51,373	4,705	France CDC shares 40.8%
	44.4%	DEXIA	Finance	1999	12,005	1,265	
	33.2%	Engie (舊 GDF Suez SA)	Energy	2005	12,234	147,400	CDC shares 1.8%
	18.0%	Safran SA	Industry	1985	59	68,945	
	26.3%	Thales SA	Industry	2005	57,257	61,709	
	14.1%	Peugeot S.A.	Automobile	1985	25,862	207,801	
	13.4%	Orange (舊 France Telecom SA)	Communication	2001	11,261	156,000	
	17.5%	Air France KLM SA	Transportation	1999	9,684	100,744	
	19.7%	Renault Fr	Industry	1994	45,355	117,395	
	0%	Airbus Group	Airline	2000	2,893	138,622	Sogepa shares 10.9%
	28.8%	Areva SA	Low CO_2 emission energy	2011	21,660	41,847	France CEA shares 54.3%

Data: OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. pp.18~21
APE, "l'Etat actionnaire 2014-2015", pp. 25, 196~197.
Euronext, https://www.euronext.com/, Cofisem data requoted (2015. 10. 22)
Thomson Reuters, Eikon DB(2015.11.11.).

to strategically sell or buy government shares to protect its control, as in the cases above, Ordinance 2014-948 simplified articles relating to SOEs' capital transactions so that the government could easily transact capital as a shareholder. Although the government is reducing its shares by continuously selling them, the granting of more voting rights than shares as a means of protecting control plays an important role in maintaining the government's influence and continuing public business interests.

2 Finland

Finland comprehensively regulates exercise of government shares and ownership of state-owned companies (SOEs) and associated companies through its Ownership Steering Act 2007, legislated in 2007,[14] (Suk-hee Park, 2012). In particular, this law describes in detail how the Finnish State Ownership Steering Department (SOSD) is to subjectively and efficiently exercise ownership[15] (Suk-hee Park, 2012).

Finnish SOEs are classified into SOEs, associated companies, and subsidiaries of Solidium (national holding company), depending on the extent or form of the government shares. In addition, for organizations with ownership functions, they can be classified into SOEs managed by SOSD under the prime minister's office or SOEs managed by the competent authority. In 2015, among the 65 total SOEs, any commercial ones were managed by SOSD under the prime minister's office. Public organizations with special purposes are managed by each department and enterprises with minor government shares are controlled by the Solidium holding company. Commercial SOEs are operated in the same manner as private enterprises, and once listed, they are operated according to the Companies Act and the Securities' Trading Act. The monies spent on public

14) Suk-hee Park, 「Research on Foreign Public Organization Management Institution」, National Assembly Budget Office, 2012, p. 53.

15) Suk-hee Park, 「Research on Foreign Public Organization Management Institution」, National Assembly Budget Office, 2012, p. 54.

service obligations (PSO) for commercial SOEs are accounted for as a form of subsidy by the government.

To supply funds and raise efficiency, privatization has been pursued, and as a means of privatization, the listing of SOEs was tried (OECD, 2013). To this end, the requirements for a listing need to be met. Moreover, the government reviews many other factors such as potential, future dividends, industry characteristics, and the qualifications of the board of directors (OECD, 2013). Once listed, enterprises need to meet requirements such as those in the Companies Act, and the Securities' Trading Act, and are obliged to disclose information required by the Stock Exchange. They are also supervised and monitored by the Finnish Financial Supervisory Authority. In addition, now publicly listed, such enterprises are indirectly controlled by the market and media.

There are a total of 15 listed SOEs in Finland, three of which, Finnair, Fortum, and Naste Oil, are directly controlled and supervised by the SOSD. The remaining 12 are under the national holding company Solidium, and are not directly supervised by SOSD. To further improve the independence of SOSD management, Solidium was established in October 2008. Once established, the government transferred its ownership of nine SOEs, classified as non-strategic SOEs, in which it owned less than 50% of the shares[16] (Suk-hee Park, 2012). Solidium is controlled and supervised by SOSD, and SOSD indirectly owns shares of the subsidiaries via Solidium. Solidium selects enterprises based on standards of investment profitability and the political importance of the enterprise. For enterprises with less than 50% government share, Solidium, as a holding company, exercises its shareholder's rights in place of the government. These enterprises have relatively more autonomy in their operations compared to listed enterprises directly managed by the government with more than 50% government shares.[17] Finland is the only OECD member country that operates a holding company like Solidium for its government shares.

16) Suk-hee Park, 「Research on Foreign Public Organization Management Institution」, National Assembly Budget Office, 2012, p. 50.

17) Interview with Solidium employee (2015.10).

〈Table III-3〉 **Detailed Status of Listed SOEs in France**

(unit: $million, %)

Classifi –cation	Gvmt. shares	Company Name	Field	Listed year	Market value	Employees	Form of Possession
Major	55.8%	Finnair Oyj	Airline	1989	385	4,981	55.8% by government
	50.8%	Fortum Oyj	Energy	1998	19,317	8,592	50.8% by government
	50.1%	Neste Oil	Oil refinery	1995/ 2005	6,224	4,833	50.1% by government
Minor	10.0%	Elisa Oyj	Communication	1999	4,578	4,089	10.0% by government via Solidium
	17.1%	SSAB	Steel manufacture	1989	1,773	16,887	17.1% by government via Solidium
	12.3%	Stora Enso Oyi	Manufacture	1988	5,502	29,009	12.3% by government via Solidium
	26.2%	Outokumpu Oyj	Steel manufacture	1988	2,404	12,125	26.2% by government via Solidium
	16.7%	Kemira Oyj	Chemical industry	1994	1,858	4,248	16.7% by government via Solidium
	11.9%	Sampo Oyj	Insurance	1989	26,249	6,739	11.9% by government via Solidium
	13.0%	Metso Oyj	Technology	1989	4,523	15,644	13.0% by government via Solidium
	3.2%	TeliaSonera AB	Communication	1998	27,878	26,166	3.2% by government via Solidium
	10.0%	Tieto Oyj	IT service	1989	1,918	13,720	10.0% by government via Solidium
	11.1%	Valmet Oyj	Technology	2014	1,853	10,464	11.1% by government via Solidium
	13.2%	Outotec Oyj	Mine	2006	972	4,571	13.2% by government via Solidium

Note: 1) The unit of the company value is EUR bn.
Data: 1. OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014b, pp. 18~21.
2. Finland SOSD annual report 2014, p. 38, 41, 44.
3. Solidium annual report 2015, p. 2, pp. 18~19
Thomson Reuters, Eikon DB2015.11.11.).

3 Norway

The Norwegian government follows article 19 of the Norway Kingdom Constitution to manage its shares and to exercise ownership of the SOEs and the companies established by special laws. The government's ownership is consigned to the competent authority and the competent authority executes SOE ownership according to the laws legislated by the constitution or national assembly. The investment in shares and investment collection need the agreement of the national assembly. On the other hand, when an SOE buys or sells another company's shares or business, if the transaction corresponds to the purpose of its establishment, it can be executed without agreement from the national assembly. In the past, the Norwegian SOEs were established as part of a government agency, but now, however, most have shifted to being companies under enterprise law, or independent enterprises altogether .

According to the Statens Eierberetning 2014, 10 relevant departments are exercising direct ownership of 68 SOEs.[18] Depending on the purpose of national ownership, SOEs are classified into (1) an enterprise with commercial purpose, (2) an enterprise with headquarters in Norway with a commercial purpose, (3) an enterprise that does not only have commercial purposes but also other special purposes, and (4) an enterprise that has policy goals in its field.[19] In Norway, there is no organization that manages all the SOEs in general. The Department of Ownership under the Department of Commerce Industry controls 19 out of the 26 SOEs that have commercial purposes, SOE type 1, 2, and 3. The rest are controlled by the Ministry of Defense, local governments, the Depart of Modernization, the Department of Agriculture and Food, the Department of Petroleum Energy, and the Department of Transport and Communication.

Norway treats its SOEs as an important means of creating public value, thus, it does not have a comprehensive privatization goal,[20] and for SOEs using

18) Norwegian Ministry of Trade, Industry, and Fisheries, "Statens Eierberetning 2014," p. 6.

19) Norwegian Ministry of Trade, Industry, and Fisheries, "The State Ownership Report 2013," p. 7.

20) OECD, "Regulatory Reform in Norway. Marketisation of Government Services – State-owned Enterprises," 2003, p. 28.

natural resources, the Government's Ownership Policy clarified that even partial privatization is not under consideration.[21] Still, privatization has occurred in the country by turning an agency into a company, reorganizing ownership, and listing stocks.

For the government to invest in stocks or transact investments, agreement from the parliament is required. However, it is possible for an SOE to buy or sell other companies' shares without parliament agreement.

Recently, the Norwegian parliament obliged the government to reduce its shares in SOEs such as Ambita, Baneservice, Entra, Mesta, SAS, and Veterinærmedisinsk Oppdragssenter, if the justification for state ownership was not adequate. Accordingly, government shares of the real estate enterprise Entra was reduced from 100% to 49.89% through a public offering, which converted Entra from a 100% SOE to a listed SOE. The farming enterprise Cermaq sold all its shares to the Japanese Mitsubishi Corporation. However, Mesta put off selling its shares because the bidding price was too low.[22]

There are eight listed SOEs in Norway (see Table III-8), and the government owns more than 50% of the shares in Statoil ASA, Telenor ASA, and Kongsberg Gruppen ASA. In Entra ASA, DNB ASA, Norsk Hydro ASA, Yara International ASA, and SAS, the government owns between 10% and 50% of the shares.[23] Because Norwegian SOEs are normally operated according to corporate law, there are no laws or systems that specially apply to SOEs or listed SOEs. To be listed on the Oslo stock exchange, Norwegian enterprises must obey the laws of The Stock Exchange Act, the Public Limited Liability Companies Act, the Norwegian Securities Trading Act, the Financial Institutions Act, the Savings Banks Act, and the Securities Funds Act. [24]

Norway does not assign a special category to listed SOEs, but classifies them into one of four categories, just like other SOEs. Therefore, Norway does

21) Norwegian Ministry of Trade, Industry, and Fisheries, "Government's Ownership Policy 2008," p. 11.

22) Norwegian Ministry of Trade, Industry, and Fisheries, "The State Ownership Report 2014," p. 3.

23) Norwegian Ministry of Trade, Industry, and Fisheries, "The State Ownership Report 2014," OECD, "The Size and Sectoral Distribution of SOEs in OECD and Partner Countries," 2014, p. 62.

24) OECD, 『Corporate Governance Factbook』, 2014, p. 16. Oslo Børs, Acts and regulations, http://www.oslobors.no/ob_eng/Oslo-Boers/Regulations/Acts-and-regulations (2015.10.08.).

not have a separate section for listed SOEs in the SOE annual report, but it does separate listed SOEs and non-listed SOEs when disclosing major indicators and numbers.

〈Table III-4〉 **Detailed Status of Listed SOEs in Norway**

(unit: $million, %)

Classifi-cation	Direct Gvmt. shares	Company Name	Field	Listed year	Market value	Employees	Form of Possession
Major	67%	Statoil ASA	Oil/gas production	2001	55,798	22,516	
	53.97%	Telenor ASA	Communication	2000	30,339	33,000	
	50.001%	Kongsberg Gruppen ASA	Military, navigation	1993	1,969	7,726	
Minor	49.89%	Entra ASA	Real Estate	2014	1,875	167	
	36%	Yara International ASA	Fertilizer production	2004	12,298	12,073	
	34%	Norsk Hydro ASA	Aluminum production	1909	11,712	12,922	
	34%	DNB ASA	Bank	1992	24,049	12,064	
	14.29%	SAS	Airline	1997	639	12,329	

Data: Norway Industry of Ministry, The State Ownership Report 2014.
OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014. pp.18~21
Thomson Reuters, Eikon DB(2015.11.11.).

4 New Zealand

Ownership and management of New Zealand's public organizations fall under the ministers of the competent authority and the Department of SOE. A Commercial Operations group under the Department of Treasury helps the competent authority's ownership department manage the portfolio of government commercial SOEs. Depending on the applicable acts of establishment and operations of the organizations, public organizations in New Zealand are classified as SOEs, Crown research institutes (CRIs), Crown financial institutions

(CFIs), Council-controlled trading organizations, other Crown entity companies, companies listed on the Schedule 4A of the Public Finance Act, statutory Crown entities, and mixed ownership model companies.[25] At the end of 2015, 50 organizations were managed by the Commercial Operations Group. Public organizations are classified into commercial and non-commercial enterprises depending on whether the enterprise has commercial potential. SOEs and mixed ownership model companies are classified as commercial. SOEs refer to enterprises active in the commercial environment while having social responsibility, and the State-owned Enterprises Act 1986 applies to them. By December 2015, there were 14 SOEs, and four listed SOEs as mixed ownership model companies.

The four mixed ownership SOEs listed their shares in the stock market according to the New Zealand mixed ownership model, between 2011 and 2013. SOE law is not applied to listed SOEs; they are operated instead under the Companies Act 1993.[26] In addition, just like other listed companies, the Securities Act 1978 and the Securities Market Act 1988 apply as well.[27]

The Commercial Operations Group, the ownership management organization, is in charge of appointing directors and setting appointment plans, searching for candidates, evaluating candidates, determining candidates, approving candidates, appointing, announcing, and recommending board of directors for public organizations, and developing professionals (Suk-hee Park, 2012)[28]. Therefore, directors of SOEs are recommended by the Commercial Operations Group, and appointed by the minister of the department owning the SOE, or of the competent authority. The term of the appointed director is three years maximum, and they can be reappointed or the term can be extended in special cases (Korea Institute of Public Finance, 2013).[29] On the other hand, the four

25) New Zealand Department of Treasury Commercial Operations group homepage (http://www.treasury.govt.nz/statesector/commercial/portfolio/bytype) 2015.12.20.

26) Interview with Commercial Operation groups employee (2015.9).

27) OECD, 「Corporate Governance Factbook」, 2014, p. 16

28) Suk-hee Park, 「Research on Foreign Public Organization Management Institution」, National Assembly Budget Office, 2012, p. 54.

29) Suk-hee Park, 「Research on Foreign Public Organization Management Institution」, National Assembly Budget Office, 2012, p. 54.

listed SOEs classified as mixed ownership enterprises appoint directors according to the Companies Act. A Director Recommendation Committee within the board of directors searches and recommends candidates and the appointment decision is made at the general meeting of stockholders. The government takes part in the decision-making as a stockholder.30)

In New Zealand, the listings of SOEs before 2000 were part of its privatization policy in the 1980s. New Zealand listed SOEs and promoted their incorporation before selling stock, with some becoming privatized (OECD, 2014). Incorporation and privatization of the SOEs demanded a corresponding efficiency, and the New Zealand government thought that such efficiency could best be achieved by pressure from the capital market and individual investors.31) (OECD, 2014).

Unlike SOEs listings with a final goal of privatization, the mixed ownership model in New Zealand is implementing with the final goal being that of the government as the majority shareholder. The mixed ownership model for the SOE was suggested as part of an election campaign by the National party of New Zealand, the ruling party in 2011. When the party won the election, the policy was implemented. The National party, a right-leaning enterprise-friendly party, expected the SOEs to operate more efficiently once listed, and rolled out the mixed ownership system. The listed organizations were the Might River Power, the Meridian Energy, and the Genesis Energy.

Mixed ownership was included in the National Finance Act in 2012, and it was stated that the government should have 51% or more of the shares and other shareholders less than 10%. The statement about the 51% shares was written into law because it guaranteed that the government influence was maintained even if the government sold shares, thus political tolerance of the change was enhanced. SOEs under the mixed ownership model (MOM) are exempt from the 1986 SOEs Act. This meant that the SOEs Act was not applied to these enterprises and only the Companies Act applied to them. As a result, regulations were reduced for the listed SOEs.

30) Interview with New Zealand Commercial Operations Group employee (2015.9).

31) OECD, 「Working Party on State Ownership and Privatization Practices, Broadening the ownership of state-owned enterprises: a comparative report」, 2014c, pp. 41~45.

Thus, the biggest advantage for listed SOEs under the MOM is that they are excluded from the application of the SOEs Act and only have to operate under the Companies Act. As a first result of this, the process of director appointments changed. Under the SOEs Act, the government searches for director candidates and then appoints them. For listed SOEs under the Companies Act, on the other hand, the board of directors searches for the candidates and appoints them. In their second terms, directors already on the board can resign right before the general meeting and then be reconfirmed in the meeting, thereby remaining without any interval between terms. The government owns 51% or more of the shares due to the limits of MOM, so the government has at least 51% of the voting rights in the general meeting. Normally, to prevent the objections of the government in the general meeting, the board of directors asks for the government's opinion before the meeting. The government cannot recommend or appoint a director by itself, but it can express a negative opinion on the selected candidate and this right is the role of the largest shareholder, not an absolute right of director appointment. However, there is one exception in appointing directors; when appointing the head of the organization, it is clearly stated in the National Finance Act that the government must approve such an appointment. The result of this change means that as the organization's autonomy has expanded in its ability to select directors, it can appoint directors who have better skill sets and quality than the government appointed directors.

The other change, already mentioned, is that listed SOEs under MOM are exempt from obligation under the SOEs Act. Such obligations include management of SOE results and disclosure of information. For SOEs under the SOEs Act, the government requires that they announce and meet performance targets that the government then monitors. However, listed SOEs do not need to fulfill such obligations, but their market results take the place of the unlisted SOEs' achievements. Listed SOEs are also exempt from the duties of the Public Information Act, so they are not required to reveal the same SOE information and can replace this with listed SOE announcements. Additionally, they do not need to perform the public duties demanded of the SOEs, and instead, can carry out any social responsibilities necessary as they see fit.

The biggest change for enterprises once listed is that the market principle applies to them. The market scrutiny (market pressure) of listed SOEs' financial results increases and response to them becomes more immediate. The obligations of listed enterprises include that such SOEs disclose more information more often, compared to disclosures of non-listed SOEs. Institutional investors owning most of the shares often show an immediate response to revealed information, which creates pressure in the market. Within the institution, the result in the stock market is an incentive. A long-term incentive, introduced after the SOE is listed, is based on three-years of growth in the stock market (stock price and dividend) compared with its peer group. If the result is above average based on a rolling three-year achievement, a bonus is given each year. This system motivates employees to improve financial results.[32)]

As discussed, the SOE listings freed them from prior government supervision and regulation, and made more funds available, which provided more growth opportunities for the enterprises. However, there is a limit to growing equity when government shares remain at 51% or above, according to the National Finance Act.[33)]

〈Table III-5〉 **Detailed Status of Listed SOEs in New Zealand**

(unit: $million, %)

Classifi-cation	Direct Gvmt. shares	Company Name	Field	Listed year	Market value	Employees
Major	51.95%	Air New Zealand Limited	Airline	2002	2,163	10,546
	51.76%	Mighty River Power Limited	Energy	2013	3,207	821 (2010년)
	51.02%	Meridian Energy Ltd	Energy	2013	2,218	827
	51.02%	Genesis Energy Ltd	Energy	2013	4,031	1,200

Data: 1. New Zealand Commercial Operations group homepage (2015.08.27.) http://www.treasury.govt.nz/commercial/.
2. OECD, The Size and Sectoral Distribution of SOEs in OECD and Partner Countries, 2014b. pp. 18~21. Thomson Reuters, Eikon DB(2015.11.11.).

32) Summarized interview with New Zealand Commercial Operations Group (2015.9)

33) Summarized interview with New Zealand Commercial Operations Group (2015.9)

Ⅳ

Analysis of Results of Listed SOEs

In this chapter, we conduct an analysis of the influence on company management performance of the change in SOE ownership and its public listing. The listing of an SOE is regarded as partial privatization, a first step to full privatization, or as failed privatization when it faces difficulties. Governments own half or more of the shares or voting rights of the listed SOEs, thus they maintain control over the enterprises. Therefore, we predicted that there would hardly be any influence on company operations. However, research has suggested that even without a change in control, partially privatized listed SOEs show higher profitability and productivity than existing government-owned SOEs because of their positions in the stock market (monitoring, incentives to excellent performance, immediate response of the market to their performance). Recent research has analyzed that listed SOEs under the MOM have stronger financial results than non-listed SOEs, but weaker financial results than private enterprises. (Gupta, 2005; Backx et al., 2002).

To investigate this effect, this chapter examines if the government ownership or listing has an influence on the listed enterprises by looking at the four countries previously analyzed and at major energy companies worldwide.

To understand the influence of the SOE listing on the company's performance, we use the Wilcoxon signed rank test to analyze financial results of the listed enterprises in the four countries before and after listing.

The Megginson et al. (1994) model is widely used to analyze privatization effects and in Korea, it was used by Hyun-sook Kim (2007) to examine the privatization of Korean enterprises. In this research, we assume that the SOE listing will have the same effect as privatization, and use the research model of Megginson et al. and Hyun-sook Kim. This research will compare the management performance of the SOEs before and after listing to analyze its effects; the influence on each management performance variable used in this analysis can be expressed in the following hypotheses.

First, the SOE listing will improve the company's profitability. The profitability of an SOE can be measured by return on sales (ROS), return on assets (ROA), and return on equity (ROE), and we predict that the profitability index of the SOE after its listing will be higher than before its listing. Second, the SOE listing will enhance operational efficiency of the company. Due to the ownership and operational architecture of the SOE, the operational efficiency of an SOE is understood to be lower, so we can expect that the SOE listing will improve the company's efficiency. Operational efficiency of an enterprise can be measured by sales per employee (sales efficiency) and net profit per employee (net profit efficiency). Third, capital investment will increase. Capital investment can be measured as the proportion of capital expenses to total expenses, and it is expected to increase after SOE listing. Fourth, the company will experience more growth. The attraction of new investment will be facilitated through the capital market, so opportunities for growth will increase. Growth can be measured by an increase in the rate of sales. Fifth, previous research (Megginson et al., 1994; Hyun-sook Kim, 2007) presents conflicting opinions regarding influence on employment. One predicts that the enterprise will lessen employment to cut fixed costs, while the other predicts that there will be more employment because of company growth. In this research, considering that the SOE listing is more focused on improving efficiency rather than growth, we predict that the company will employ less once listed. Sixth, we predict that the stability of the SOE will improve. Depending on the sovereign credit rating, the SOE credit rating may be determined higher than its financial results warrant; thus, it will be easier to obtain loans and SOEs tend to get funds for expansion through such loans. However, we predict that after listing, maintaining a healthy financial status and decent financial results for investors will be more helpful in raising company value compared with getting loans. Therefore, we expect that the company's debt ratio will decrease after listing. Seventh, after listing, there will be more shareholders other than the government, so the importance of dividends will expand. Therefore, we expect dividends to shareholders to grow after listing.

〈Table IV-1〉 **Hypothesis on Changes in Management Performance before and after Listing**

Category	Variable	Hypothesis
1) Profitability	ROS	H11: ROS will rise after listing
	ROA	H12 ROA will rise after listing
	ROE	H13: ROE will rise after listing
2) Operational Efficiency	Sales efficiency	H21: Sales efficiency will rise after listing
	Net profit efficiency	H22: Net profit efficiency will rise after listing
3) Capital Investment	Capital expense in proportion to capital	H31: Capital investment will rise after listing
4) Growth	Increase rate of sales	H41: Sales increase rate will rise after listing
5) Employment	No. of employees	H51: No. of employees will reduce will rise after listing
6) Stability	Debt ratio	H61: Debt ratio will be reduced after listing
7) Dividend	Dividend in proportion to profit	H71: Dividend in proportion to profit will rise after listing
	Inclination for dividend	H81: Inclination for dividend will rise after listing

* Modified data of Megginson et al(1994) and Hyun-sook Kim (2007).

The selected indices used to compare the financial results before and after the listing can be measured as shown in the table below.

〈Table IV-2〉 **Achievement Variable and Measurement Used**

Category	Variable	Measurement
1) Profitability	ROS	Net profit/Sales
	ROA	Net profit/Total asset
	ROE	Net profit/Equity
2) Operational efficiency	Sales efficiency	Profit/No. of employees
	Net profit efficiency	Net profit/No. of employees
3) Capital Investment	Capital expense in proportion to capital	Capital expense/Sales
4) Growth	Increase rate of sales	Nominal sales/Consumer Price Index
5) Employment	No. of employees	No. of employees
6) Stability	Debt ratio	Long-term debt/Equity
7) Dividend	Dividend in proportion to profit	Cash dividend/sales
	Inclination for dividend	Cash dividend/net profit

The financial data of the listed SOEs in France, Finland, Norway, and New Zealand are collected from the financial data of Thomson Reuters, Eikon DB [34]and then calculated to measure each management index. The “Before listing” measures the financial results for three years before the listing, and “After listing” measures the financial results for three years after the listing. Of the 39 organizations, only those with data for the three years before and after the listing were included in the analysis; thus, 16 to 23 companies were included in the analysis for each index. This was because, in most cases, the financial results were announced after the listing but not before.

The following is the comparison of the results of the management performance of the SOEs in France, Finland, Norway, and New Zealand before and after the listings. In terms of profitability, ROS decreased after listing, but ROA and ROE increased. Sales per employee and net profit per employee, which indicate operational efficiency, increased significantly after listing. Capital investment seems to have decreased after listing, growth increased by almost two times, and employment went up as well, although by a small amount. Debt ratio, which shows stability, decreased significantly and in terms of dividends, both the dividend in proportion to sales and the inclination to offer dividends increased after listing.

34) Thomson Reuters, Eikon DB(2015.11.11.)

〈Table IV-3〉 **Average (medium) Management Index of Listed SOEs before and after Listing**

Category	Variable	No. of companies	Before listing (A) (average)	After listing (B) (average)	Changes in average after listing (B–A)
1) Profitability	ROS	19	4.9 (2.0)	4.3 (4.6)	–0.62 (2.6)
	ROA	19	3.2 (3.9)	4.4 (4.4)	1.25 (0.5)
	ROE	19	6.7 (8.8)	13.9 (13.5)	7.21 (4.7)
2) Operational efficiency	Sales efficiency	19	721.7 (183.3)	867.8 (259.5)	146.14 (76.2)
	Net profit efficiency	19	18.5 (5.2)	33.7 (12.6)	15.19 (7.4)
3) Capital Investment	Capital expense in proportion to capital	23	46.1 (28.9)	31.6 (23.5)	–14.48 (–5.4)
4) Growth	Increase rate of sales	16	7.0 (3.2)	14.9 (12.8)	7.84 (9.6)
5) Employment	No. of employees	19	52,463.6 (15,593.0)	53,848.1 (17,196.0)	1,384.53 (1,603.0)
6) Stability	Debt ratio	25	897.2 (403.4)	646.3 (283.5)	–250.94 (–119.9)
7) Dividend	Dividend in proportion to profit	17	1.1 (0.7)	1.5 (0.7)	0.32 (0.0)
	Inclination for dividend	22	17.3 (13.2)	26.0 (26.5)	8.68 (13.3)

Note: *** indicates ‘significant at 1% significance level.’ ** indicates ‘significant at 5% significance level.’
* indicates significant at 10% significance level

The result of the comparison analysis of changes in management performance before and after the listing using Wilcoxon signed rank test is shown in the Table IV-5. ROE, sales per employee, net profit per employee, and inclinations for dividends increased significantly after the listing. On the other hand, capital investment decreased significantly. This means profitability and operational efficiency improved after the listing and that the dividend increased as well.

〈Table Ⅳ-4〉 **Result of Wilcoxon Signed Rank Test on Management Index of SOEs before and after Listing**

Category	Variable	No. of Companies	Changes in medium before and after listing	Z-value of changes in medium	Ratio of companies whose prediction and performance are the same
1) Profitability	ROS	19	-0.62 (2.6)	0.121	52.6
	ROA	19	1.25 (0.5)	0.926	52.6
	ROE	19	7.21 (4.7)	1.690*	73.7
2) Operational efficiency	Sales efficiency	19	146.14 (76.2)	2.978***	84.2
	Net profit efficiency	19	15.19 (7.4)	1.711*	57.9
3) Capital Investment	Capital expense in proportion to capital	23	-14.48 (-5.4)	-1.901*	39.1
4) Growth	Increase rate of sales	16	7.84 (9.6)	1.216	50.0
5) Employment	No. of employees	19	1,384.53 (1,603.0)	0.724	36.8
6) Stability	Debt ratio	25	-250.94 (-119.9)	-1.466	64.0
7) Dividend	Dividend in proportion to profit	17	0.32 (0.0)	0.995	58.8
	Inclination for dividend	22	8.68 (13.3)	1.672*	63.6

Note: *** indicates 'significant at 1% significance level.' ** indicates 'significant at 5% significance level, * indicates significant at 10% significance level

The following is the comparison of the analysis results above with the results from Megginson et al. (1994) and Hyun-sook Kim (2007), who used the same method to analyze the effects of privatization. In Megginson et al. and Hyun-sook Kim, ROS and ROA increased among the profitability indices and in Hyun-sook Kim's model, ROE increased as well. On the other hand, only ROE increased significantly in our research. For operational efficiency, sales per employee and net profit per employee increased, just as in the previous research. In those studies, a significant change was observed in employment and stability but here, we could not find a statistically meaningful result in this regard. In terms of dividends, on the other hand, the inclinations for dividends increased significantly, thus here we see consistent results with the previous research. However, unlike the other studies, which analyzed the effects of privatization, here we analyzed the effects of the SOE listing, but we could confirm similar effects with privatization in terms of increased profitability, efficiency, and the inclination for dividends in the SOE listings as well. This implies that even though the owner of the listed SOE is still the government, due to market pressure, new shareholders, and the disclosures of management performance after listing, efficiency in the enterprise improves.

〈Table IV-5〉 **Comparison of Changes in Management Index of SOEs before and after Listing**

Category	Variable	Hypothesis	Effect of Listing	Existing Research on Privatization Effect	
				(Megginson, 1994)	(Kim, 2007)
1) Profitability	ROS	+	0.121	3.146***	2.535**
	ROA	+	0.926	1.87*	2.633***
	ROE	+	1.690*	0.599	2.678***
2) Operational efficiency	Sales efficiency	+	2.978***	3.66***	3.475***
	Net profit efficiency	+	1.711*	1.733*	–
3) Capital Investment	Capital expense in proportion to capital	+	–1.901*	–	–
4) Growth	Increase rate of sales	+	1.216	–	0.657
5) Employment	No. of employees	–	0.724	0.956	2.006**
6) Stability	Debt ratio	–	–1.466	–	2.248**
7) Dividend	Dividend in proportion to profit	+	0.995	4.626***	–
	Inclination for dividend	+	1.672*	3.233***	–

Note: *** indicates 'significant at 1% significance level.' ** indicates 'significant at 5% significance level, * indicates significant at 10% significance level

V

Conclusion and Policy Implications

The mixed ownership policy that appears in the listed SOEs can be interpreted as a new wave in ownership policy for public organizations. Mixed ownership means selling shares of government organizations to the public and can be seen as partial privatization, which is a first step to privatization, but recently, mixed ownership has its final goal as mixed ownership and is being promoted in many countries such as New Zealand, China, and Vietnam. As in the promotion of privatization before this, this newer form of ownership introduces the market principle to raise the efficiency in these company operations. At the same time, unlike privatization, the government retains control, so its influence over these companies is maintained. As a result, SOEs prefer it as a method of innovation as it still addresses public concerns. In particular, for SOEs that are listed by an initial public offering, it follows the regulations of the capital market. This means there is a higher level of transparency while obtaining investment funds more readily through the market, making it is an efficiency-raising method for growth oriented SOEs that need continuous large-scale investment.

By 2012, among OECD member countries, the data on 20 out of 31 countries showed that they have about 60 listed SOEs altogether (OECD, 2014). Among the 20 countries that reported listed SOEs, the countries with the most listed SOEs with government shares more than 50% are Korea (8), Italy (7), Poland (6), Turkey (6), Greece (5), Slovenia (4), Chile (3), Finland (3), France (3), Norway (3), the U.S. (2), and Austria (2). For listed SOEs with minor government shares (between 10% and 50%), Finland and France have the most with 12 and 11, respectively, followed by Poland (10), Italy (6), and Norway (5). If we classify the listed SOEs of the OECD member countries by industry, the electricity/gas/energy industry represents the industry with the most SOEs. There are 17 (28.3%) listed SOEs in electricity/gas/energy industry out of 60, with 37.0% of the employees and 46.9% of the company value, showing the highest absolute proportion among various industries. This is followed by finance, transportation, and manufacturing, in that order.

This report focused on the status and changes that occur after the listing of SOEs in France, Finland, Norway, and New Zealand, which all have many listed SOEs. In these four countries, we discovered that many changes occurred related to laws, systems, and actual operations after SOEs were listed.

First, the transparency of the enterprise operation improved. With their stocks traded in the capital market, a strict obligation was applied requiring the disclosure of company information to the public, and with this information clearly disclosed, management showed more responsibility toward enterprise operations. Second, more value was given to improving financial results in their operations. In particular, institutional investors, who made up most of the listed SOEs shareholders, adjust their holdings depending on financial results, meaning, they respond sensitively to financial results and often demand direct improvements and an increase in dividends. Therefore, listed SOEs put more effort in improving productivity and financial results before listings, expecting such market pressure. Third, the process for executive appointments changed. In most countries we analyzed, the government, the sole shareholder and regulating organization, had the right to appoint directors for a non-listed SOE (before the listing), and therefore, exercised full influence over these enterprises. This fact, the government's influence over the director appointments, has been represented as a factor hindering the proper search and appointment of qualified candidates. However, after listing, the management structure and executive appointment procedure was determined by the Commercial Law or the Companies Act, with the result that the board of directors had the primary responsibility of appointing directors. The government still influenced director appointment, but its role was limited as a shareholder. This meant that the government influence over appointing directors decreased. In addition, as the independence of the director appointments increased, the board of directors was able to appoint executives with higher professionalism and better quality; this was deemed a very positive effect of the listing. This is because the government cannot exercise full influence or force irrational director appointments for listed SOEs; the executives are appointed at general meetings and even though the government is the largest shareholder, other shareholders' opinions have to be considered. As there are less political appointments, and more professional and capable executives appointed as directors, we conclude that the level of management at listed SOEs improved.

The change in the management structure of the SOEs after the listing also seems to have influenced the financial results of the enterprises; we could confirm through the financial analysis of the SOEs, changes in results. By using the Wilcoxon signed ranking test on the listed SOEs in the four countries to analyze financial results before and after listing, we found that ROE (index of profitability), operational efficiency (sales per employee, net profit per employee), and inclinations for dividends increased significantly after listing. Moreover, although statistically insignificant, debt ratio showed a decreasing trend after listing. When we analyzed the differences in 34 energy companies among the Fortune 500 that occur due to government ownership and listing, profitability was generally higher in listed enterprises, both private and state-owned, while debt ratio was higher in non-listed enterprises.

Comprehensively, SOEs show positive results in profitability and inclinations for dividends after listing and their debt ratios decrease, maintaining a more stable, financial structure.

Korea operates public organizations based on its Law on Public Organization Operation and as of 2015, 315 public organizations were designated under this law, with eight listed SOEs. Most of the listed organizations were pursuing full privatization, but stopped selling shares due to resistance to privatization. On the other hand, to maintain public interest, some remain as mixed ownership by legally clarifying the government ownership shares. Although the final goal of the listing may be different, the SOE listing presages the raising of operational efficiency and competing in the market with the private sector. However, in Korea, listed SOEs do not differentiate in their "listing" in terms of classification and management method, but remain the same as other institutions with the management structure operated based on the Law on Public Organization Operation. Therefore, the operation and management structure of the listed SOEs, which are expected to have the highest commercial potential among SOEs, are managed in the same way as quasi-government institutions, which perform government functions in place of the government. Thus, the financial results of listed SOEs whose shares are directly owned by the government seem to be lower than listed SOEs whose shares are indirectly owned by the government via public organizations (Han-joon Park · Kyung-sun Heo, 2014). This is because although the SOEs are listed, which is an external factor, the management structure and management, the internal factors, are not changed to meet the needs of the listed SOEs.

The cases of the four OECD member countries analyzed in this research provide the following policy implications regarding management and management structure of listed SOEs.

First, clarification is needed in terms of the type and operational purpose of listed SOEs. All four countries state that the priority goal of operating SOEs is maximizing profitability and value. In particular, the purpose of listed SOEs is maximizing profitability of the government's investment and retaining in the government portfolio excellent financial results. This is because for listed SOEs in those countries, once listed, responsibility for the financial results increases for investors (government) and shareholders other than the government. The governments of the four countries publish annual reports on SOEs every year, which provide explanations of additional stock information, fluctuations in market value, and the causes of these fluctuations. This means that the government regards the stock price of the listed SOEs as a KPI and monitors it accordingly.

Second, as the Commercial Law is applied to the listed SOEs' operations, government influence on appointing directors greatly decreases, and autonomy in appointing directors increases. For New Zealand, a listed SOE is designated separately as "listed SOE" and managed as such. Existing SOE law is not applied to these listed SOEs and instead, the National Finance Act, Commercial Law and the Securities, and Exchange Act are applied. In France, Finland, and Norway, listed SOEs are managed the same way as other commercial SOEs. Commercial Law is applied, and this is a means of weakening government influence on the appointment of directors.

Third, foreign countries assume that listed SOEs compete with private enterprises on the same basis. In particular, before listing SOEs, supplemental laws and systems related to the regulation of entry or competition for monopolies is required, to ensure enough competition in the market. This is because operational efficiency of listed SOEs can improve when there is enough competition and the prices of products and services are determined freely in the competitive market. In particular, in the power industry in France, before the power SOE was listed, regulations and adjustments were made in the market, and a systematic approach promoting private sector activity was adopted over the long-term so there could be enough competition.

Fourth, when managing listed SOEs, the rights of small shareholders should be respected and they should be treated as equal shareholders. The SOE management structure guideline from the OECD or the World Bank emphasizes the importance of small shareholder protection and that such rights should be protected equally to that of the government, the largest shareholder. In Korea, there are lawsuits from small shareholders holding the board of directors accountable for poor financial results, and electronic voting has been introduced among public institutions that have moved to local areas, so small shareholders' voices can grow louder. The introduction of electronic voting, in particular, may limit the largest shareholder's decision rights; thus, we can predict that small shareholders' opinions may be reflected more. The expansion of SOE shareholders and the introduction of the MOM have increased small shareholders interest in profitability rather than just public benefit. Various shareholders are suggesting that for listed SOEs the operational purpose, performance indicators, and the government's method of managing them should change from the past.

Fifth, the options for protecting government control need to be diversified. Now, in Korea, listed enterprises are operated by one vote per share voting rights and there is no additional protection option for management. The four countries analyzed use multiple protections such as dual class voting rights and a golden share so that even when the government had minor shares, it still maintained its influence. Such systems can only be used for major decision making regarding management structure, so they are a protection that maintains the SOEs' public brand while respecting small shareholders' rights and opinions. In Korea, we need to review management protection options for maintaining government control in SOEs with minor government shares or when selling additional shares of larger SOEs.

Sixth, we need to widen the range of SOEs managed by the government. In Korea, if the government's shares or public shares exceed 50%, or the decision making power is over 50%, such organizations are treated as public organizations. In other countries, however, even for enterprises with government shares less than 50%, they are actively managed by the government for various purposes such as policies or investment. In France and Finland, even if the government does not have major shares, it is still the largest SOE voting shareholder, or if it is not the largest shareholder but has more than 10% of the shares, the government executes ownership systematically. France and Finland represent two types of government management of minor share enterprises. APE (France) includes SOEs with minor government shares in the group and directly controls them, and Finland consigns this management to Solidium, a holding company fully owned by the government. Finland allows more management autonomy to minor share enterprises and the government exerts influence only in important decision-making. In Korea, we also need to systematically manage shares of listed enterprises owned by the government for public purposes such as investment and corporate rehabilitation.

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