# Future Developments for Value-Added Tax Policy in Korea

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# Introduction

Korea's value added tax (VAT) has a flat tax rate system, and the standard VAT rate stands at 10 percent, which is relatively low. As of 2013, the tax rate among OECD member countries with a VAT system ranges between 5 and 27 percent, with the unweighted average of the tax rate standing at 18.9 percent. Meanwhile, with the exception of some sectors including food, private education, agriculture, financial services, medical services and medicine, the tax reduction system such as VAT exemption and the zero-rate VAT is applied in relatively restrictive manner in Korea. In addition, the transaction information of various goods and services subject to VAT is factored into calculations in a relatively effective way. This is due to the bigger income tax deduction for credit card users and the cash receipt system, both of which were introduced around the year 2000.

Thanks to the combination of the aforementioned institutional elements, Korea boasts a high VAT revenue ratio (VRR) when compared with other countries. VRR is the ratio between the actual VAT revenue collected and the revenue that would theoretically be raised if the VAT were applied at the standard rate to all total consumption. It is one of the most important indicators showing the achievements of the VAT system.

The VAT is one of the most important tax items contributing to national tax revenue, not only in Korea but in many countries that use it. In principle, the VAT is applied to all transactions creating added value to goods and services, so it has an extensive effect on the economic activities of families, companies and the public sector. Despite such importance, the VAT system's advantages,

limitations and directions for improvement have not been fully studied in Korea yet.<sup>1)</sup> Public concerns as to the regressive nature of the VAT may have prevented such research from being conducted. Given the importance of the VAT system, however, there is a need to fully understand the VAT system's advantages and limitations and seek directions of improvement in implementation. The aim of this report is both to set a starting point to carry out the aforementioned research while also suggesting directions for it.

The body of this report is as follows: In the second chapter, we will look into the current state of Korea's VAT system. We'll check the difference between taxation, exemption and the zero tax rate of the VAT, and also examine the current state of the VAT exemption and the zero-rate VAT. And we'll look into the size of Korea's VAT revenue and changes in VRR. Through this examination, we will see that Korea's VRR has continuously increased since 2000, with its current VRR exceeding 70 percent. On the international level, only New Zealand, Luxembourg, Estonia and Switzerland boast a greater than 70 percent VRR, and the unweighted average of OECD countries' VRR is only 55 percent.

In the third chapter, we will examine other countries' reform direction for the VAT system. First of all, we will look into how the VAT systems of OECD member countries have changed since the financial crisis of 2008. Among the 33 OECD countries that have the VAT system as of 2013, 18 countries raised their VAT rate after the 2008 financial crisis. Those countries saw their VAT rate increase by an average of 2 percent.

Then we will look into the VAT reform examples of four countries—Germany, Switzerland, Spain and Japan. In Germany, a VAT increase first became known to the public in 2005 as an election pledge of Angela Merkel, the then-opposition leader and a candidate for the chancellor of Germany. Merkel frankly notified voters of Germany's deteriorating financial conditions, then pledged to raise the VAT rate to tackle the problem and won the election, despite

<sup>1)</sup> Exceptionally, those who led research on VAT included Kim Seung-rae, Park Myung-ho, Hong Beom-Gyo (2007), Kim Yu-chan (1995), Park Ki-baeg (2000), Park Myung-ho (2008), Sung Myung Jae (2013), Sung Myung Jae, Park Ki-baeg (2008) and Cheung Jaeho (2010).

the fact that tax increases are usually unpopular pledge.

In Switzerland, a VAT simplification bill was discussed to introduce the flat tax rate system and cut the tax exemption range. But this bill failed to pass federal parliament. Then, ironically, another reform aimed at raising the VAT rate to secure finances for social security insurance was later approved by referendum. In order to increase tax revenue, it is more economical to cut tax benefits, such as a reduced VAT rate and VAT exemption, than to increase the overall tax rates. But the example of Switzerland demonstrates that the former is a more difficult policy for reaching public consensus than the latter.

In Spain, the VAT rate was raised in 2010, and again in 2012. The Spanish government's deficit exceeded 11 percent of GDP in 2009, so it revised the VAT system twice to strengthen the nation's fiscal health.

Japan has been working on a consumption tax increase. The Japanese parliament has already passed a bill raising its current consumption tax rate of 5 percent in phases to 10 percent by 2015, but the revised bill contains an addendum that could put a stop to a tax increase depending on economic conditions. So whether or not the tax rate will actually increase is drawing people's attention. It is interesting that the Japanese government's reform of the consumption tax act has been supported by elderly voters, since the tax revenue increased from the reform would be spent on basic pension, old-age pension and long-term care services, whose beneficiaries are mostly senior citizens.

Lastly, in the fourth chapter, we'll summarize the content of this report and look into how the VAT system should be improved institutionally.



# Current State of Korea's VAT System

# 1 Summary

Value added tax (VAT) is a general consumption tax applied to all transactions that add value to goods and services. But in reality, some transactions are exempted from taxation to take social equity into consideration and help promote certain industries. Internationally, the destination principle of taxation is upheld, so the VAT is applied only to final consumption taking place in Korea. In other words, goods and services consumed in Korea are subject to Korea's VAT system, but those consumed outside Korea are not.

VAT is an indirect tax, so the person bearing the tax's ultimate economic burden and the person liable for tax payment are different. Generally goods and services go through many stages before consumption. In this case, the person bearing the ultimate economic burden of the VAT is the consumer, and the person liable for tax payment is a business operator participating in each transaction. Under the VAT system not allowing tax exemption, the amount of VAT paid by the end consumer is divided and borne by business operators joining in each transaction. The amount of VAT borne by each business operator equals the difference between output and input tax, or the amount of value added by each business operator multiplied by tax rate.

Korea replaced various business and commodity taxes with VAT in 1977. At the time, the standard VAT rate was 13 percent and the application of the flexible VAT rate of 3 percent was allowed for the standard rate. But at an

early stage, the standard rate was lowered to 10 percent, and the country has adhered to the flat tax rate system of 10 percent since then. Compared to other countries, Korea's VAT rate of 10 percent seems relatively low. But Korea's VAT revenue in 2012 amounted to 58.6 trillion won, making it a tax item collecting the greatest amount of revenues.<sup>2)</sup>

The VAT is charged on a variety of transactions, so it is important for the tax administration to obtain an accurate picture of transaction information in the national economy. In Korea, such information is revealed through tax invoices issued in every transaction. Through this, business operators who sell goods and services can calculate their sales amount and output tax, and those buying products and services can calculate their purchase amount and input tax. Then, each provider should pay VAT equal to the difference between the output and input tax. Let's see an example of the next picture.

Material Manufacturing Distribution Consumption >• Added Value 100 350 50 Input/Output Amount 495 110 550 Input/Output Tax 45 50 10 VAT 10 35 5

[Figure II-1] Example of VAT When the VAT Rate is 10 Percent

In the above figure, a total of three business operators are participating in three stages of transactions before final consumption. The raw material producer creates an added value of 100 won, the manufacturer creates an added value

<sup>2)</sup> Since 2010, the local consumption tax taking 5 percent of VAT revenue has been adopted, It is notable that the local consumption tax is not created in addition to the VAT, but in such a way that the current VAT is divided among the central and local governments,

of 350 won, and the distributer creates an added value of 50 won. Let's suppose that the VAT rate is 10 percent. Then, the sales amount of the raw material producer is 110 won; the purchase amount of the manufacturer is 110 won, and the sales amount of the manufacturer is 495 won; the purchase amount of the distributer is 495 won, and the sales amount of the distributer is 550 won. As the VAT rate is 10 percent, 10/110 of each purchase or sales amount is equal to each input or output tax. Therefore, the input/output taxes of the three stages are 10, 45 and 50 won, respectively. Each operator should bear the VAT equaling the difference between their output and input tax. Therefore, the VAT of the raw material producer is 10 won, the manufacturer's is 35 won, and the distributor's is 5 won. Of course, in this case each business operator is just the person liable for tax payment, and the person who bears ultimate economic burden of the tax is the end consumer. In other words, the final consumer pays the distributor a total of 550 won for a product with an added value of 500 won plus the VAT of 50 won. Then the VAT of 50 won is divided to and borne by the three operators in proportion to the added values they each created.

# Tax Exemption and Zero Tax Rate

## A. Tax Exemption

The VAT exemption is a system in which providers of certain goods and services are exempted from the obligation to pay taxes. When exempted taxpayers supply goods or services subject to VAT exemption, they do not receive VAT from the purchaser, and also cannot receive the deduction of the input tax they already paid in the earlier stage. Therefore, even for tax-free items, the VAT occurring before the final transaction is charged. In addition, if the tax-free transaction is in the middle, the accumulation effect of taxes occurs in the later transactions since the input tax already paid cannot be deducted. From this perspective, the tax exemption is called the "partial tax exemption" for convenience. Let's see two examples.

Material Manufacturing Consumption Distribution Exemption Added Value 100 350 50 Input/Output Amount 110 495 545 Input/Output Tax 10 45 0 VAT 10 35 0

[Figure II-2] VAT Exemption That Occurs Right before the Final Consumption

The figure above shows the same process of VAT production and transactions with Figure II-1. However, it is different from Figure II-1 in that the transaction right before final consumption is VAT-free. The VAT rate for all the other transactions except the VAT-free transaction is 10 percent. The distributor who trades VAT-free items does not receive VAT from the final consumer at the distribution stage, and he cannot receive the deduction of the 45-won input tax he already paid to the manufacturer in the previous stage. Therefore, the distributor sells the product to the final consumer at a total price of 545 won; 500 won for the product's value plus 45 won for the total VAT. The 45-won VAT is divided into 35 won and 10 won and borne by the manufacturer and the raw material producer, respectively. From the perspective of the end consumer, only the value of 50 won added by the distributor to the product is subject to tax exemption, thereby reducing VAT by 5 won. If the effective VAT rate is defined as the percentage of the total VAT to the total value added, the effective VAT rate in Figure II-2 is 9 percent. When the VAT exemption occurs just before final consumption, the effective VAT rate usually is lower than the statutory VAT rate.

The following figure is an example of a VAT exemption occurring in the middle stage. In this case, the manufacturer is an exempted taxpayer, and he supplies products to the distributor. The manufacturer does not receive VAT from the distributor, and cannot receive the deduction of the input tax of 10 won he paid for raw materials in the earlier stage. Meanwhile, the input tax

of the distributor buying VAT-free products is zero. Therefore, the manufacturer supplies the product to the distributor at the price of 460 won—450 won for the product's value plus 10 won for the VAT already paid in the previous stage. In turn, the distributor adds the value of 50 won to the product, then the product price becomes 510, then he adds the VAT of 51 won, so he sells the product to the end consumer at the price of 561 won. Just like in other examples, the total value added is 500 won, but the VAT exemption in the middle stage leads to the accumulation effect of taxes, thereby increasing the VAT paid by the end consumer to 61 won. With the manufacturer exempted in this case, the VAT of 61 won is divided into 10 won and 51 won and borne by the raw material producer and the distributor, respectively. In this case, the effective VAT rate is 12.2 percent. When the VAT exemption occurs in the middle stage, the effective VAT rate is usually higher than the statutory VAT rate due to the accumulation effect of taxes.



[Figure II-3] VAT Exemption That Occurs in the Middle Stage

Goods and services subject to VAT exemption are designated by the Value-Added Tax Act and Restriction of Special Taxation Act. The following table shows VAT-free goods and services according to the Value-Added Tax Act.

[Table II-1] Tax Exemption According to Value-Added Tax Act

Clas	ssification	Tax-free items
		Unprocessed foodstuffs (including agricultural products, stock farm products, marine products, and forest products which are served for food)
		Agricultural products, stock farm products, marine products, and forest products which are produced in the Republic of Korea and are not served for food
	Daily necessity	Tap water
		Briquettes and anthracite coal
		Feminine hygiene products
		Passenger transport services (excluding passenger transport services by aircraft, expressway buses, chartered buses, taxies or rapid-transit trains)
	National welfare	Healthcare services (excluding plastic surgery and some veterinary services) and blood
Supply of goods and		Educational services (excluding dance schools and driving schools)
services	Culture	Books, newspapers, magazines, official gazettes, news communications prescribed, and broadcasting (excluding advertisements)
		Creative works (excluding antiques), artistic events, cultural events, or amateur athletic games
		Admission to libraries, science halls, museums, art galleries, zoos, or botanical gardens
		Financing and insurance services
		Supply of land
	Production	Lease of children's houses attached to collective housing as welfare facilities
		Lease of housing and its appurtenant land
		Manpower services, as prescribed by Presidential Decree, which authors, composers, or other persons provide vocationally

# [Table II-1] continue

Cla	ssification	Tax-free items			
		Postage stamps, revenue stamps, certificate stamps, lottery tickets, and public telephones			
		Special cigarette			
Supply of goods	Others	Goods or services which are supplied by any organizations for religion, charity, scholarship, or relief			
and services	Offiers	Goods or services which are supplied by the State, local governments, or local government associations			
		Goods or services which are supplied to the State, local governments, local government associations, or organizations for public interest prescribed by Presidential Decree			
	Daily necessity	Unprocessed foodstuffs			
	National welfare item	National welfare item			
	Imported donation	Imported donation			
		Donation to state organizations			
		Small sum of donated goods			
Imported		Imported goods due to moving, migration and inheritance			
goods		Traveler's belongings, separate post and mailing piece			
		Products for trade samples and advertisement			
	Duty-free goods	Products submitted to events such as expo, exhibition and film festival			
		Duty-free products according to international practices			
		Re-imported products and temporarily imported products			
		Tobacco and other products subject to duty exemption			

Source: National Tax Service Webpage, Value-Added Tax Act, Article 26, Enforcement Decree of Value-Added Tax Act, Article 36.

The following table shows VAT-free items according to the Restriction of Special Taxation Act.

[Table II-2] Tax Exemption According to the Restriction of Special Taxation Act

Classification		Tax-free item
Supply of goods and services	Supplied until Dec 31, 2015	<ul> <li>Petroleum products supplied to be used for such independent power generation for the remote island areas</li> <li>Food services provided by the operator of a place of business</li> <li>Management of agriculture or fisheries, and services for farming or fishing operation, executed vicariously</li> <li>Buses supplied for the purposes of urban bus transportation and village shuttle services, which use natural gas as their fuel</li> <li>Motor vehicles supplied to simplified taxable persons for use as owner-driver taxies for passenger transport business</li> <li>Wooden pallets</li> </ul>
	Supplied until Dec 31, 2014	<ul> <li>General management services, security services and cleaning services supplied to housing other than national housing</li> <li>Diapers and powdered milk for infants</li> <li>Operational business of higher educational facilities constructed by private capital according to BTO</li> <li>Electric buses used as city buses and mini-shuttle buses</li> </ul>
	Supplied until Dec 31, 2013	- Tax exemption on supply and import of gold bullion
	Permanent exemption	<ul> <li>Services for supply, construction and design of national housing</li> <li>General management services, security services and cleaning services prescribed by Presidential Decree supplied to national housing</li> <li>Security services and cleaning services supplied to the welfare house for the aged not more than the size of national housing</li> <li>Goods and services supplied by an organization performing governmental affairs on behalf of the Government</li> <li>Railway facilities provided by Korea Rail Network Authority to the nation for securing the management right to railway facilities</li> <li>Items used for the treatment of rare diseases</li> </ul>

[Table II-2] continue

Classification		Tax-free item
Imported products	Temporary exemption	<ul> <li>Machinery and materials used for the agricultural or livestock industry directly imported by farmers, as well as machinery and materials used for fishing industry directly imported by fishermen</li> <li>Products to be used in the Incheon Asian Games, Gwangju Summer Universiade, etc.</li> <li>Equipment for the development of offshore minerals</li> </ul>
	Permanent exemption	<ul> <li>Anthracite, ships for taxable business, goods for bonded construction</li> </ul>
Exemption on oil	Petroleum produ	cts for agriculture, forestry, fisheries, and coastal passenger ships

Source: National Tax Service Webpage, Value-Added Tax Act, Article 26, Enforcement Decree of Value-Added Tax Act, Article 36,

## B. Zero Tax Rate

The zero-rate VAT is a system by which the VAT rate for supply of certain goods and services becomes zero, and in turn the input tax becomes zero and, as a result, the VAT is not charged and all the previously-spent input tax is refunded. This system is usually used to completely exempt exported goods and services from VAT according to the destination principle of taxation. In other words, when a taxpaying business operator exports products, the output tax is zero, so he does not collect VAT from the buyer, and also the input tax he previously paid is refunded. Therefore, his tax burden disappears completely. In this perspective, the zero tax rate is also called "total tax exemption" for convenience's sake. Let's see the following example.

[Figure II-4] The Zero-Rate VAT

	Material	N	/anufacturir	ng	Distribution	Consumption
	•		→•		Ze	ro Rate
Added Value	100		350		50	
Input/Output Amoun	t	110		495		545
Input/Output Tax		10		45		0
VAT	10		35		-45	

Just as in the previous examples, a total of three business operators participate in three stages of transactions. But this case is different in that the distributor is exporting products abroad. With the zero-rate VAT applied to exported goods, the distributor's output tax becomes zero. Therefore, the distributor can get a refund of 45 won, the difference between the output tax (0) and the input tax (45). In the previous transactions, the raw material producer has already paid 10 won and the manufacturer 35 won, so the total VAT becomes zero. The VAT burden disappears completely.

The following table shows the difference between VAT exemption and the zero-rate VAT.

[Table II-3] Difference between VAT Exemption and the Zero-Rate VAT

Classification	VAT exemption	The zero-rate VAT
Definition	A system that exempts suppliers of certain goods and products from taxation	A system that applies the zero tax rate to the tax base for suppliers of certain goods and services
Items	Daily necessities, medical services, educational services, etc.	Exports and other goods, services exempted under tax policies, etc.
Purpose	Easing VAT's regressive nature	Realizing the destination principle of taxation
Tax liability	No tax liability under the Value—Added Tax Act	Tax liability

Source: National Tax Law Information System Webpage (http://taxinfo.nts.go.kr).

Internationally, the destination principle of taxation is applied to general consumption taxes including the VAT. By applying the zero-rate VAT to exported goods, the tax burden disappears in the exporting country and the products can be taxed in the importing country in which they are finally consumed. However, under Korea's Value-Added Tax Act, some other products than exported goods are also subject to the zero-rate VAT. Such examples include equipment for the agriculture, forestry and livestock industries, equipment for the fisheries industry, urban railway construction services and products for the defense industry.

[Figure II-4] Major Special Taxation Schemes Related to VAT

(Unit: KRW 100 million)

				(01111. 1414)	v 100 million)
Classification	Special taxation schemes	Legal ground	2011 (Record)	2012 (Provisional)	2013 (Estimated)
1	VAT deduction on usage of credit cards	Value-Added Tax Act 32-2	13,831	15,654	14,413
2	The zero-rate VAT on agricultural, livestock and forestry equipment	Restriction of Special Taxation Act 105①5	13,265	12,539	13,513
3	Deemed input tax deduction on recycling of scrapped materials etc.	Restriction of Special Taxation Act 108	6,732	8,351	7,375
4	Indirect tax deduction on oil for agriculture, forestry and fisheries (tax-free oil)	Restriction of Special Taxation Act 106–2①1	4,194 (15,349)	4,545 (15,951)	4,270 (16,129)
5	The zero-rate VAT on urban railway construction services	Restriction of Special Taxation Act 105①3	2,752	2,278	2,604
6	The zero-rate VAT on products for the defense industry	Restriction of Special Taxation Act 105①1	2,055	1,959	2,207
7	VAT reduction for transport provider of regular taxis	Restriction of Special Taxation Act 106-7	1,524	1,591	1,576
8	Special treatment regarding VAT refund for agricultural and fishery equipment	Restriction of Special Taxation Act 105–2①	1,452	1,167	1,319
9	Special treatment for business operators who provide cash receipts	Restriction of Special Taxation Act 126–3	1,085	1,097	1,082
10	The zero-rate VAT on fishery equipment	Restriction of Special Taxation Act 105①6	852	612	902
Subtotal of the Top 10 (A)			47,742	49,793	49,261

[Figure II-4] continue

Classification Special taxation schemes	Legal ground	2011 (Record)	2012 (Provisional)	2013 (Estimated)
Total VAT (B)		98,208	102,706	98,374
Proportion (A/B)		48.6%	48.5%	50.1%

\* Note: 1. The ranking is based on 2011 records.

The item of tax—free oil is based on the VAT exemption amount, the numbers in parentheses
 indicating the total exemption amount for all related indirect taxes including VAT, special consumption tax, traffic tax, education tax, etc.

\* Source: Tax Expenditure Budget, annual.

Meanwhile, Korea notifies the public of various special taxation schemes through each year's tax expenditure budgetary document. In this case, a special taxation scheme means a system that temporarily lessens the tax burden related to income, consumption and possession of assets in order to motivate economic activity by economic agents. The table above shows the VAT-related items in the order of the largest expenditures under the special taxation scheme in the 2011 tax expenditure budget. In this case, "expenditure of special taxation scheme" means the estimated losses in tax revenue caused by the implementation of the special taxation scheme. The table shows the top 10 items of VAT-related special taxation schemes with the largest expenditures.

The table demonstrates that a considerable amount of tax revenue is lost due to various the zero-rate VAT and VAT exemption schemes. For example, as of 2011, losses caused by the application of the zero-rate VAT on agricultural, livestock and forestry equipment amount to 1.3 trillion won, and those caused by VAT-free oil for the agriculture, forestry and fisheries industries are 400 billion won. In the case of tax-free oil, when all related tax items including VAT are taken into consideration, the losses are estimated to exceed 1.5 trillion won.

# 3 Changes in VAT Revenue and VAT Revenue Ratio (VRR)

A value-added tax (VAT) is a tax item contributing the greatest amount to Korea's national tax revenue. Among the total national tax revenue of 192.4 trillion won in 2011, the VAT revenue excluding the revenue of the local consumption tax stands at 51.9 trillion won or about 27 percent of total national tax revenue. Meanwhile, income tax revenue is approximately 42.3 trillion won, and the corporate tax revenue is about 44.9 trillion won. When total tax revenue is defined as the sum of the national taxes and local taxes collected, the total tax revenue of 2011 amounts to about 244.7 trillion won. The VAT revenue including the local consumption tax in 2011 amounts to 54.6 trillion won or about 22 percent of total tax revenue.

The following table shows the yearly changes in tax revenue for each tax item.

[Table II-5] Yearly Changes in Tax Revenue of Each Tax Item

(Unit: KRW 100 million)

	2006	2007	2008	2009	2010	2011
National tax	1,380,442	1,614,591	1,673,060	1,645,416	1,777,184	1,923,812
Internal tax	1,138,795	1,325,081	1,365,563	1,364,769	1,435,061	1,596,018
Direct tax	627,559	771,152	782,867	721,050	778,062	904,932
Income tax	310,043	388,560	363,551	344,233	374,619	422,877
Corporate tax	293,622	354,173	391,545	352,514	372,682	448,728
Inheritance tax	8,676	10,590	11,817	12,207	12,028	12,586
Gift tax	15,216	17,830	15,953	12,096	18,733	20,741
Indirect tax	479,281	518,342	539,361	569,316	607,324	642,521
VAT	380,929	409,419	438,198	469,915	491,212	519,069

[Table II-5] continue

(Unit: KRW 100 million)

	2006	2007	2008	2009	2010	2011
Individual consumption tax	49,035	51,611	44,994	36,420	50,658	55,373
Liquor tax	24,056	22,623	28,294	27,641	28,782	25,293
Telephone tax	5	0	0	0	0	0
Stock exchange tax	25,257	34,688	27,875	35,339	36,671	42,787
Stamp tax	5,879	5,880	5,729	5,437	5,219	6,239
Carry-over from previous year	25,691	29,708	37,607	68,966	44,456	42,324
Traffic tax	95,938	114,635	119,093	100,920	139,701	115,460
Defense tax	8	3	3	2	5	2
Education tax	34,245	38,612	41,796	37,542	46,450	42,464
Farming and fishing villages special Tax	29,597	38,009	37,549	38,420	39,014	48,949
Gross real estate tax	13,275	24,143	21,299	12,071	10,289	11,019
Duty	68,584	74,108	87,757	91,691	106,663	109,901
Local tax	412,937	435,243	454,797	451,678	491,598	523,001
Total tax revenue	1,793,379	2,049,834	2,127,857	2,097,094	2,268,782	2,446,813

<sup>\*</sup> Note: Local consumption tax is deducted from VAT from January 1, 2010.

Meanwhile, the following table shows yearly changes in the VAT tax revenue including the local consumption tax. According to this table, the VAT revenue from imported goods accounts for a considerably larger share than the VAT revenue from domestic goods. As of 2012, the share of VAT revenue from domestic goods stands at 88.8 percent, and that of the VAT revenue from

<sup>\*\*</sup> Source: Internal tax, traffic tax: National Tax Service, Statistical Yearbook of National Tax, annual, Profits of the monopoly enterprise, defense tax, education tax, farming and fishing villages special tax, gross real estate tax: The Korean Government, Report on Revenue and Expenditure, annual,

imported goods at 11.2 percent. This is because a large portion of domestically-produced goods and services is exported, and exporting business operators receive a tax refund due to the application of the zero-rate VAT. The VAT revenue collected in 2012 is a whopping 57.3 trillion won, but approximately 50.7 trillion won has been refunded, reducing the net VAT revenue to only 6.6 trillion won. Meanwhile, as for the tax on imports, when imported raw materials or intermediary goods are domestically processed, distributed and supplied to the final consumers in Korea, the VAT on imported raw material and intermediary goods is not refunded but included in VAT revenue. VAT revenue from imported goods in 2012 stands at approximately 52 trillion won.

[Table II-6] Changes in VAT Revenue

(Unit: KRW 1 billion, %)

		VAT on domestic goods			,,=	Share	
Year To	Total	Payment	Refund	Net VAT revenue	VAT on imported goods	VAT on domestic goods	VAT on imported goods
	(A=D+E)	(B)	(C)	(D=B-C)	(E)	(D/A)	(E/A)
1990	6,964.4	5,938.8	3,292,6	2,646.2	4,318.2	38.0	62,0
1991	8,252,6	7,254.2	4,204.1	3,050.1	5,202.5	37.0	63.0
1992	10,076.3	8,674.9	3,983.2	4,691.7	5,384.6	46.6	53.4
1993	11,687.5	10,199.8	4,287.7	5,912.1	5,775.4	50.6	49.4
1994	13,058.0	11,208.8	5,161.5	6,047.3	7,010.7	46.3	53.7
1995	14,636.9	12,801.1	7,051.0	5,750.1	8,886.8	39.3	60.7
1996	16,789.5	14,955.1	8,269.8	6,685.3	10,104.2	39.8	60.2
1997	19,488.0	16,518.8	8,543.2	7,975.6	11,512.4	40.9	59.1
1998	15,706.8	15,539.6	10,767.1	4,772.5	10,934.3	30.4	69.6
1999	20,369.0	18,200.5	9,858.6	8,341.9	12,027.1	41.0	59.0
2000	23,212.0	20,846.0	13,397.6	7,448.4	15,763.6	32.1	67.9
2001	25,834.7	23,690.6	13,997.9	9,692.7	16,142.0	37.5	62.5

[Table II-6] continue

(Unit: KRW 1 billion, %)

		VAT on domestic goods			,,=	Share		
Year	Total	Payment	Refund	Net VAT revenue	VAT on imported goods	VAT on domestic goods	VAT on imported goods	
	(A=D+E)	(B)	(C)	(D=B-C)	(E)	(D/A)	(E/A)	
2002	31,608,8	28,854,2	14,259.7	14,594.5	17,014.3	46.2	53.8	
2003	33,447.0	31,453.9	16,766.1	14,687.8	18,759.2	43.9	56.1	
2004	34,571.8	33,933.3	21,834.9	12,098.4	22,473.4	35.0	65.0	
2005	36,118.6	35,570.6	23,059.9	12,510.7	23,607.9	34.6	65.4	
2006	38,092.9	38,148.5	26,334.6	11,813.9	26,279.0	31.0	69.0	
2007	40,941.9	41,290.2	29,000.0	12,290.2	28,651.7	30.0	70.0	
2008	43,819.8	43,616.5	38,376.7	5,239.8	38,580.0	12.0	88.0	
2009	46,991.5	48,012.9	35,385.3	12,627.6	34,363.9	26.9	73.1	
2010	51,706.8	50,725.4	41,438.8	9,286.6	42,420.2	18.0	82.0	
2011	54,638.8	54,609.5	50,446.3	4,163.2	50,475.6	7.6	92.4	
2012	58,597.6	57,265.3	50,684.8	6,580.5	52,017.1	11.2	88.8	

<sup>\*\*</sup> Note: Since 2010, the local consumption tax (5 percent deduction from VAT) has been adopted. In this table, the local consumption tax is included in the total.

Basically, the VAT is a tax applied to final consumption taking place in Korea. Therefore, the potential VAT source size can be calculated from the size of final consumption expenditures in the national accounts. The final consumption expenditure in the national accounts includes the consumption expenditures of families, those of nonprofit organizations working for families and those of the government. But the VAT is also included in the final consumption expenditure. Therefore, if the already-collected VAT is subtracted from the final consumption expenditure, the rest can be defined as the potential VAT source.<sup>3)</sup>

<sup>\*</sup> Source: National Tax Service's annual Statistical Yearbook of National Tax.

<sup>3)</sup> This content is reconstructed based on Korea's data by using Consumption Tax Trends (OECD, 2012)

Let's imagine a hypothetical place in which the following conditions are applied to the VAT system.

- (i) The zero-rate VAT is only applied to exported goods and services.
- (ii) The tax exemption does not exist.
- (iii) The reduced tax rate does not exist, and the flat tax rate system is applied to all goods and services.
- (vi) Tax crimes including VAT evasion do not take place, and all taxes imposed are collected.

In the hypothetical situation satisfying all aforementioned conditions, VAT revenue can be calculated by multiplying the potential VAT source and the tax rate. In reality, however, the VAT system does not satisfy all those conditions. As already seen in Korea's case, the zero tax rate is not applied only to exports, and there are a variety of VAT exemption. In addition, it is estimated that VAT evasion takes place in many places by trading jewelry repetitively. At least, Korea satisfies the condition (iii) partially in that it has the flat tax rate system with no designation of reduced tax rate.

Let's assume that VAT revenue ratio (VRR) is the ratio between the actual VAT revenue collected and the revenue theoretically raised under the hypothetical VAT system. In other words, VRR can be defined as follows.<sup>4)</sup>

$$\mathit{VRR} = \frac{\mathit{VAT Revenue}}{(\mathit{Final Consumption Expenditure} - \mathit{VAT Revenue}) \times \mathit{Tax Rate}}$$

The following table shows yearly changes in VRR. In this table, "Potential Source of VAT" means final consumption expenditure minus VAT revenue.

Chapter 4, "Measuring Performance of VAT: The VAT Revenue Ratio" as a reference.

<sup>4)</sup> There are many indicators other than VRR that are used to measure the performance of the VAT system. One such example is the VAT efficiency ratio, which has been widely used from the past. The VAT efficiency ratio is defined as the proportion between the actual tax revenue collected to the potential tax revenue, with the potential tax revenue being assumed as GDP multiplied by the tax rate. But in many countries, VAT is considered a general consumption tax, and the zero tax rate is applied internationally according to the destination principle of taxation, so there is criticism that assuming GDP as the potential source of VAT is unrealistic. Taking this criticism into consideration, recently the C-efficiency ratio was developed, and the OECD developed the VAT revenue ratio (VRR) based on the C-efficiency ratio.

[Table II-7] Changes in VRR

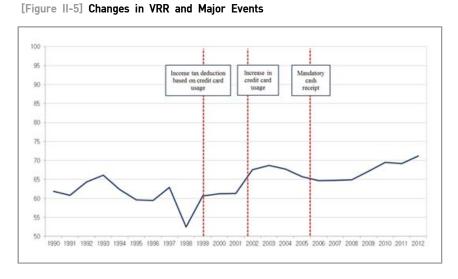
(Unit: KRW 1 billion, %)

				(	,,
Year	Final consumption expenditure	VAT Revenue	Potential source of VAT	Tax rate	VRR
	(A)	(B)	(C=A-B)	(D)	B/(C*D)
1990	119,474.6	6,964.4	112,510.2	10.0	61.9
1991	143,918.4	8,252.6	135,665.8	10.0	60.8
1992	166,656.4	10,076.3	156,580.1	10.0	64.4
1993	188,524.2	11,687.5	176,836.7	10.0	66.1
1994	222,474.7	13,058.0	209,416.7	10.0	62.4
1995	260,129.5	14,636.9	245,492.6	10.0	59.6
1996	298,984.1	16,789.5	282,194.6	10.0	59.5
1997	329,321.1	19,488.0	309,833,1	10.0	62.9
1998	315,211.7	15,706.8	299,504.9	10.0	52.4
1999	356,270.7	20,369.0	335,901,7	10.0	60.6
2000	402,490.4	23,212.0	379,278.4	10.0	61.2
2001	447,261.4	25,834.7	421,426.7	10.0	61.3
2002	499,646.0	31,608.8	468,037.2	10.0	67.5
2003	520,156.0	33,447.0	486,709.0	10.0	68.7
2004	545,188.1	34,571.8	510,616.3	10.0	67.7
2005	585,440.6	36,118.6	549,322.0	10.0	65.8
2006	626,818.3	38,092.9	588,725.4	10.0	64.7
2007	673,526.3	40,941.9	632,584.4	10.0	64.7
2008	718,571.6	43,819.8	674,751.8	10.0	64.9
2009	746,294.9	46,991.5	699,303.4	10.0	67.2
2010	795,378.7	51,706.8	743,671.9	10.0	69.5
2011	844,938.2	54,638.8	790,299.4	10.0	69.1
2012	882,232,5	58,597.6	823,634.9	10.0	71.1

<sup>\*\*</sup> Note: Since 2010, the local consumption tax (5 percent deduction from VAT) has been adopted. In this table, the local consumption tax is included in VRR.

<sup>\*\*</sup> Source: National Tax Service, Statistical Yearbook of National Tax, each year, Statistics Korea, Korean Statistical Information Services (http://kosis.kr).

The table shows that Korea's current VRR is about 70 percent. When looking into yearly changes, VRR was about 60 percent until 2001, when it began to rise to the mid-60s, stayed there for a while, and recently rose to almost 70 percent. As the tax deduction system for credit card users was adopted in 2000 and the cash receipt system was introduced in 2005, the VRR seems to have gradually increased. Meanwhile, during the foreign exchange crisis of 1997 when the income tax deduction for credit card users was yet to be introduced, there was a big change in VAT revenue and VRR; however, during the global financial crisis of 2008 when the income tax deduction for credit card users took root, there was no change in VAT revenue and VRR. The following figure shows changes in VRR and major events.



On the international level, Korea's VRR is relatively high compared to those of other countries. Among the 34 OECD member countries, 33 of them only with the exception of the U.S. have the VAT system. Among these 33 countries, only seven countries have a higher than 65 percent of VRR as of 2009—New Zealand (99%), Luxembourg (92%), Estonia (76%), Switzerland (71%), Israel

(68%), Japan (67%) and Korea (67%). The following table shows changes in

# OECD countries' VRR over the five years following 2005.

[Table II-8] Changes in VRR: Based on OECD Members

(Unit: %)

Country	Tax rate (As of 2009)	2005	2006	2007	2008	2009
Australia	10.0	56	55	54	50	52
Austria	20.0	61	59	61	61	61
Belgium	21.0	50	52	51	48	47
Canada	5.0	52	48	52	51	49
Chile	19.0	67	64	67	70	59
Czech Republic	19.0	57	53	55	58	56
Denmark	25.0	62	64	65	62	59
Estonia	18.0	75	81	80	67	76
Finland	22.0	60	61	60	58	55
France	19.6	51	51	51	49	46
Germany	19.0	55	57	55	56	56
Greece	19.0	48	47	48	46	39
Hungary	20,0	49	55	59	57	62
Iceland	24,5	62	65	60	54	47
Ireland	21.5	65	66	62	54	46
Israel	15,5	64	64	69	68	68
Italy	20,0	41	43	43	41	37
Japan	5.0	71	70	69	67	67
Korea	10.0	66	65	65	65	67
Luxembourg	15.0	87	87	91	94	92
Mexico	15.0	31	34	34	35	31

[Table II-8] continue

(Unit: %)

Country	Tax rate (As of 2009)	2005	2006	2007	2008	2009
Netherlands	19.0	61	60	62	60	55
New Zealand	12.5	102	103	96	97	99
Norway	25.0	57	61	63	57	54
Poland	22.0	46	50	53	49	46
Portugal	20.0	57	53	53	51	44
Slovak Republic	19.0	61	57	53	54	48
Slovenia	20.0	66	67	69	67	62
Spain	16.0	56	57	54	45	34
Sweden	25.0	55	56	57	58	57
Switzerland	7.6	73	75	74	74	71
Turkey	18.0	38	34	36	35	34
United Kingdom	15.0	48	48	48	46	47
Unweighted a	verage	59	59	60	58	55

\* Source: OECD (2012), p. 113.

The lower standard VAT rate and the more restrictive application of the VAT reduction system (reduced tax rate, zero tax rate, exemption, etc.) are widely considered to be the reasons behind the higher VRR. However, the VRR does not seem directly related to those factors. For example, among countries with relatively high VRR, some have relatively low standard VAT rate—New Zealand (12.5% as of 2009), Switzerland (7.6%), Japan (5%), Korea (10%), etc.—while others—such as Luxembourg (15%), Estonia (18%), Israel (15.5%), etc.—don't. In the case of Canada, the standard VAT rate is 5 percent, which is very low, but the VRR stands at 49 percent, which is not high. Australia has a low standard VAT rate of 10 percent, but its VRR is 52 percent, which is not high. On the other hand, Denmark has a relatively high standard VAT rate of 25 percent, but its VRR of 59 percent is not low. Institutional factors that influence the VRR need to be studied in the future. The following figure shows the distribution

of OECD countries' standard VAT rate and VRR in 2009. The line in the figure represents the trend line of VRR according to the standard VAT rate.

100 New Zealand Luxembourg 80 Estonia 70 Switzerland Israel Japan **VAT Revenue Ratio** Denmark Australia 50 Canada UK Spain 🔷 30 20 10 0 0.0 5.0 10.0 15.0 20.0 25.0 30.0 Standard VAT Rate

[Figure II-6] Standard Rates and VRRs: OECD Countries

Source: OECD (2012), p. 113.



# VAT Reform in Selected Countries

# 1 The VAT System in OECD Countries

As of 2013, the OECD has a total of 34 members, and 33 countries with the exception of the U.S. currently run the VAT system. Unlike Korea, which maintains the flax tax rate system from the beginning, many OECD countries have a multiple-tariff system in which the standard VAT rate and the reduced VAT rate are applied differently. The VAT rate varies by country, but most countries adopt a higher standard VAT rate than Korea's, and EU countries tend to have the highest VAT rates. The executive branch of the EU, in fact, dictates a minimum VAT rate of 15 percent among EU countries .

### A. Current Standard VAT Rate

As of April 2013, the standard VAT rate of OECD countries ranges between 5 percent and 27 percent. The country with the highest VAT rate is Hungary (27%), followed by Iceland and Sweden (both 25%). On the other hand, Japan adopted the VAT system in 1989 and maintained a standard VAT rate of 3 percent until 1998, when it was raised to 5 percent. Tokyo will increase its VAT rate in phases up to 10 percent by 2015. With the exception of Canada, in which local governments levy sales taxes in addition to the federal government's standard VAT rate of 5 percent, Japan has the lowest standard VAT rate among OECD countries. The unweighted average of OECD member countries' standard VAT rate is 18.9 percent. Meanwhile, EU member countries'

standard VAT rate ranges between 15 percent and 27 percent, with an unweighted average of 21.5 percent. The following table shows the changes in OECD countries' standard VAT rate.

[Table III-1] Changes in Standard VAT Rate: Based on OECD Members

																() () () () () ()
							Stand	Standard rate	d) -							2013
Country	Start	1976	1980	1988	1992	1996	2000	2002	2004	2006	2008	2010	2011	2012	Standard rate	Reduced rate
Australia	2000	ı	ı	ı	ı	ı	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	0.0
Austria	1973	18.0	18.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	10.0/12.0
Belgium	1971	18.0	16.0	19.0	19.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	0.0/6.0/12.0
Canada	1991	ı	ı	ı	7.0	7.0	7.0	7.0	7.0	7.0	2.0	2.0	2.0	2.0	5.0	0.0
Chile	1975	20.0	20.0	16.0	18.0	18.0	18.0	18.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	ı
Czech Republic	1993	I	ı	I	ı	22.0	22.0	22.0	22.0	19.0	19.0	20.0	20.0	20.0	21.0	15.0
Denmark	1967	15.0	22.0	22.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0
Estonia	1991	ı	ı	ı	10.0	18.0	18.0	18.0	18.0	18.0	18.0	20.0	20.0	20.0	20.0	0.6
Finland	1994	ı	ı	ı	,	22.0	22.0	22.0	22.0	22.0	22.0	22.0	23.0	23.0	24.0	0.0/10.0/14.0
France	1968	20.0	17.6	18.6	18.6	20.6	20.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	2.1/5.5/7.0
Germany	1968	11.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0	16.0	19.0	19.0	19.0	19.0	19.0	7.0
Greece	1987	ı	ı	16.0	18.0	18.0	18.0	18.0	18.0	19.0	19.0	19.0	23.0	23.0	23.0	6.5/13.0
Hungary	1988	ı	ı	25.0	25.0	25.0	25.0	25.0	25.0	20.0	20.0	25.0	25.0	27.0	27.0	5.0/18.0

[Table III-1] Continue

							Stano	Standard rate	d).							2013
Country	Start	1976	1980	1988	1992	1996	2000	2002	2004	2006	2008	2010	2011	2012	Standard rate	Reduced rate
Iceland	1990	ı	ı	ı	24.5	24.5	24.5	24.5	24.5	24.5	24.5	25.5	25.5	25.5	25.5	7.0
Ireland	1972	20.0	25.0	25.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	23.0	23.0	0.0/4.8/9.0/13.5
Israel	1976	8.0	12.0	15.0	18.0	17.0	17.0	17.0	18.0	16.5	15.5	16.0	16.0	16.0	17.0	0.0
Italy	1973	12.0	15.0	18.0	19.0	19.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	21.0	21.0	4.0/10.0
Japan	1989	ı	ı	ı	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	ı
Korea	1977	I	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	0
-uxembourg	1970	10.0	10.0	12.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	3.0/6.0/12.0
Mexico	1980	ı	10.0	15.0	10.0	15.0	15.0	15.0	15.0	15.0	15.0	16.0	16.0	16.0	16.0	0.0
Netherlands	1969	18.0	18.0	20.0	17.5	17.5	17.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	21.0	6.0
New Zealand	1986	ı	ı	10.0	12.5	12.5	12.5	12.5	12.5	12.5	12,5	12,5	15.0	15.0	15.0	0.0
Norway	1970	20.0	20.0	20.0	20.0	23.0	23.0	24.0	24.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0/8.0/14.0
Poland	1993	I	ı	ı	ı	22.0	22.0	22.0	22.0	22.0	22.0	22.0	23.0	23.0	23.0	5.0/8.0
Portugal	1986	ı	ı	16.0	16.0	17.0	17.0	17.0	19.0	21.0	21.0	20.0	23.0	23.0	23.0	6.0/13.0
Slovak Republic	1993	ı	ı	ı	ı	23.0	23.0	23.0	19.0	190	19.0	190	20.0	20.0	2000	0

[Table III-1] Continue

							Stand	Standard rate								2013
Country	Start	1976	1980	1988	1992	1996	2000	2002	2004	2006	2008	2010	2011	2012	Standard rate	Reduced rate
Slovenia	1999	ı	ı	ı	ı	ı	19.0	20.0	20.02	20.0	20.0	20.0	20.02	20.0	20.0	8.5
Spain	1986	ı	ı	12.0	12.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	18.0	18.0	21.0	4.0/10.0
Sweden	1969	17.65	23.4	23.4	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0/6.0/12.0
Switzerland	1995	ı	ı	ı	ı	6.5	7.5	9.7	9.7	9.7	9.7	9.7	8.0	8.0	8.0	0.0/2.5/3.8
Turkey	1985	ı	ı	10.0	10.0	15.0	17.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	1.0/8.0
United Kingdom	1973	8.0	15.0	15.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	20.0	20.0	20.0	0.0/5.0
OECD Unweighted Average		6.5	8.0	11.6	13.3	16.7	17.5	17.9	17.9	17.7	17.7	18.0	18.5	18.7	18.9	I
EU Unweighted Average		8.0	9.2	13.1	13.9	19.0	20.0	20.1	20.0	19.8	19.9	20.2	20.9	21.2	21.5	I

### B. Adjustment of VAT Rates before and after the Financial Crisis

When the global financial crisis struck OECD countries, their unweighted average standard VAT rate increased from 17.7 percent in 2008 to 18.9 percent in 2013. Among 33 member countries that adopted the VAT system, 18 nations amended the system to raise the standard rate after the financial crisis. The unweighted average tax rate in these countries rose from 18.3 percent in 2008 to 20.4 percent in 2013. The remaining 15 countries maintained an unweighted average VAT rate of 17.1 percent. In Germany, where the tax rate stayed at the same level, the government had already increased the standard rate from 16 to 19 percent in 2006, before financial crisis occurred. No countries lowered their tax rates after the financial crisis. The following table shows the changes in OECD member states' VAT rates before and after the 2008 crisis.

[Table III-2] Comparison of VAT Rates before and after Financial Crisis: Based on OECD Members

(Unit: country, %)

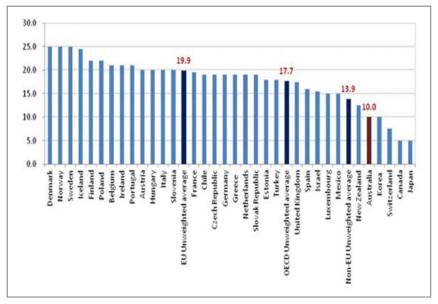
Country	Changes in tax rate		d average k rate	No. of
	(after 2008)	2008	2013	countries
Hungary, Spain, Greece, New Zealand, United Kingdom, Netherlands, Ireland, Estonia, Czech Republic, Portugal, Finland, Israel, Mexico, Slovak Republic, Iceland, Italy, Poland, Switzerland	Increased	18,3	20,4	18
None	Decreased	_	_	0
Norway, Denmark, Germany, Luxembourg, Belgium, Sweden, Slovenia, Austria, Japan, Chile, Canada, Turkey, France, Korea, Australia	No change	17.1	17.1	15
Total		17.7	18.9	33

<sup>\*</sup> Source: OECD (2012). The authors of this report have corrected the 2013 data.

The following two figures illustrate the comparison of VAT rates among OECD countries in 2008 and 2013.

[Figure III-1] Standard VAT Rates in 2008: Based on OECD Members

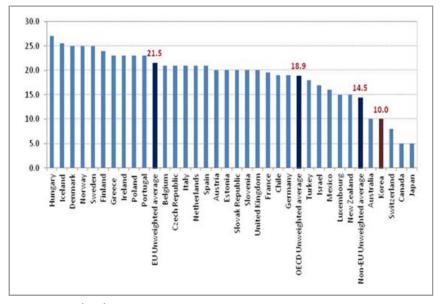
(Unit: %)



\* Source: OECD (2010).

[Figure III-2] Standard VAT Rates in 2013: Based on OECD Members

(Unit: %)



\* Source: OECD (2012). The authors of this report have corrected the 2013 data.

### C. Comparing Ranges of VAT Exemptions and Zero Tax Rates

For an easy comparison of the ranges of tax exemption among member states, the OECD set up the common exemption range by classifying specific categories granted tax exemptions in most member countries. Korea's tax exemption range partially corresponds with the OECD common exemption, but is mostly different, particularly in the tax exemption for unprocessed food products and agricultural oil. The following table compares the difference between the common exemption range of the OECD and that of the Korean government.

OECD common exemption range		Korea
<ul> <li>Postal service</li> <li>Patient transport service</li> <li>Medical service</li> <li>Provision of blood, organs and tissues</li> <li>Dental service</li> <li>Charity work</li> <li>Education</li> <li>Noncommercial activities of nonprofit organizations</li> <li>Sports service</li> <li>Cultural services except radio and</li> </ul>	Tax exemption other than common exemption	- Unprocessed food products - Regular public passenger transport service - Water supply - Anthracite supply - Oil for agricultural, livestock, forestry and fishery industries - Funeral service - Regular personal service - Books, newspapers and magazines - Broadcasting service
television broadcasting  Insurance and reinsurance  Real estate leasing service  Financial service  Lottery and gambling  Supply of land and buildings  Specific funding service	Categories of common exemption that are taxable in Korea	Supply and lease of commercial buildings     Commercial cultural service     Gambling in an authorized casino

<sup>\*</sup> Source: OECD (2012), p. 87, Restriction of Special Taxation Act, Article 105.

The differences in the tax exemption range by country and category are arranged below. Considering the tax exemption range of Korea compared to other countries, several differences are found in the tax exemption for unprocessed food products, prescription-only medicines (over-the-counter drugs are taxable), and books/newspapers/magazines and zero rating for agricultural raw materials. Most of other nations apply a standard or a reduced tax rate to these goods and services. The details are described in the following table.

[Table III-4] Comparison of VAT Exemption System: Based on OECD Members

/6											ı
Work Gambling/ of art Lottery	<b>—</b>	ш	Ш	<b>—</b>	ш	ш	Ш	ш	ш	ш	Ш
Work of art	<b>—</b>	RT	RT	<b>-</b>	<b>—</b>	ᅜ	⊢	⊢	RT	RT	œ
Agricultur al raw material	-	œ	œ	<b>—</b>	<b>—</b>	<u>~</u>	⊢	-	œ	œ	œ
Used	_	_	Τ	_	_	_	⊢	⊥	_	⊢	⊢
Gover nment spend ing	<b>—</b>	<b>—</b>	⊥	<b>—</b>	<b>-</b>	-	⊢	⊢	⊢	⊢	⊢
Nonpro fit Cha organiza rity tion activi ties	ш	ш	Ш	ш	ш	ш	Ш	Ш	ш	ш	ш
	Z	Ш	ш	Ш	Ш	ш	Ш	ш	Ш	Ш	Æ
Postal ser vice	Ы	Ш	Ш	Ы	Ы	ш	ш	ш	ш	ш	ш
Insur ance	17	ш	В	ш	ш	ш	Ш	Ш	Ш	Ш	ш
Financial service	Ш	Ш	Е	EZ	Ш	Ш	Ш	RT	Ш	Ш	Е
Culture/ Sports	ΤZ	ERT	ER	ш	ш	α.	Щ	⊥	H	RT	ERT
News	<b>-</b>	ď	ZR	<b>—</b>	<b>—</b>	~	Z	2	ď	ď	œ
Book	-	~	22	<b>—</b>	-	≃	⊢	22	22	22	~
Supply of land and ouilding	ΙZ	Ш	⊥	_	Ш	~	⊢	_	Ш	_	Ш
Educ of ation	Z	Ш	Ш	Ш	Ш	ш	Ш	Ш	Ш	Ш	Ш
Medi L	-	~	2	Z	_	œ	⊢	2	22	22	⊢
Med ical serv ice	Z	ш	Ш	ш	ш	H	ш	Ш	ш	出	띪
Real est ate lea sing	ERT	Ш	Ш	-	Ш	ERT	Ш	Ш	ERT	ERT	Ш
Public pas senger trans port	ш	œ	ZR	ш	ш	ZR	Ы	Z	œ	ZR	œ
Proce ssed food	Z	α.	Ж	17	<b>—</b>	œ	⊢	<b>-</b>	æ	æ	œ
Unproc essed food	Z	ď	Ж	77	⊢	Ω.	⊢	⊢	ď	Я	~
Country	Australia	Austria	Belgium	Canada	Chile	Czech Republic	Denmark	Estonia	Finland	France	Germany

[Figure III-4] Continue

Work Gambling/ of art Lottery	ш	ш	Ш	Ш	ш	Ш	Ш	Ы	Ш	Ш	ш
Work of art	RI	-	_	ď	-	RT	_	Ш	RT	-	늄
Agricultur al raw material	œ	⊢	⊢	œ	<b>—</b>	~	_	Z	œ	_	~
Used goods	<b>—</b>	<b>—</b>	_	-	-	-	-	_	-	-	<b>—</b>
Gover nment spend ing	-	<b>—</b>	_	_	-	-	_	EZT	_	_	-
Nonpro fit organiza tion activi ties	ш	ш	ш	ш	ш	ш	ш	ш	ш	ш	ш
Cha	Æ	ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	ш
Postal ser vice	Ш	ш	Ш	Ш	ш	Ш	_	ш	ш	_	ш
Insur ance	ш	ш	В	Ш	ш	Ш	Ш	Ш	Ш	_	ш
Financial	ш	ш	Ш	Ш	Ш	ш	Ш	Ш	Ш	Ш	ш
Culture/ Sports	œ	⊢	Ш	H	ш	RT	⊢	Ы	H	ш	ď
News	œ	~	2	ď	-	ď	_	Ш	ď	-	~
Book	<u>~</u>	~	2	Z	-	2	-	Ш	2	-	<u>~</u>
Supply of land and building	-	-	Ш	æ	ш	2	_	Ш	ш	ш	-
Educ ation	ш	ш	Ш	ш	ш	ш	Ш	Ш	ш	Ш	ш
Medi	22	~	Τ	Z	-	2	⊢	П	M.	_	~
Med ical serv ice	H	Ш	Ш	H	ш	ш	ш	Ы	H	ш	ш
Real est ate lea sing	ERT	FKT	Ш	ERT	ш	ERT	<b>—</b>	Ы	ш	ш	ERT
Public pas senger trans port	œ	<b>—</b>	Ш	ш	ш	#	ш	Ш	#	Ы	#
Proce ssed food	œ	œ	~	ZR	R	~	-	Ы	~	ΙZ	~
Unproc essed food	œ	œ	ď	ZR	ᅜ	œ	⊢	Ш	ď	77	~
Country	Greece	Hungary	Iceland	Ireland	Israel	Italy	Japan	Korea	Luxembourg	Mexico	Netherlands

[Figure III-4] Continue

							ı	ı	ı	
Work Gambling/ of art Lottery	<b>⊢</b>	ш	ш	ш	ш	ш	ш	ш	ш	⊢
Work of art	<b>—</b>	-	R	ď	-	늄	Ы	R	-	⊢
Agricultur al raw material	_	<b>—</b>	~	œ	_	œ	~	<b>—</b>	<b>—</b>	<b>—</b>
Gover nment Used ' spend goods ing	⊢	Ш	⊢	-	<b>—</b>	<b>-</b>	_	_	_	Н
Gover nment spend ing	<b>—</b>	Z	77	⊢	<b>—</b>	R	RT	⊢	⊢	-
Nonpro fit Gover Cha organiza nment Used rity tion spend goods activing ing	<b>-</b>	ш	ш	ш	Ш	ш	ш	ш	ш	-
Cha	<b>—</b>	ш	ш	ш	ш	Ш	ш	Ш	ш	Ш
Postal ser vice	<b>—</b>	-	Ш	ш	Ш	ш	Ш	-	ш	-
Insur ance	Ш	ш	Ш	ш	Ш	ш	Ш	ш	ш	-
Financial	EZ	ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш
Culture/ Sports	Ш	ш	2	R	æ	œ	ERT	ERT	ш	⊢
News	<b>-</b>	<b>-</b>	œ	œ	œ	<b>-</b>	œ	œ	<b>-</b>	$\vdash$
Book	<b>—</b>	<b>—</b>	22	œ	ď	<u>~</u>	~	~	-	-
Supply Educ of land ation and building	Ш	ш	ď	ш	Е	œ	œ	Ш	Ш	<b>—</b>
Educ	<b>—</b>	Ш	Ш	ш	-	<b>—</b>	Ш	Ш	Ш	-
Medi	-	-	ď	ď	œ	œ	~	Z	_	-
Med ical serv ice	ш	ш	H	出	Ш	Ш	H	Ш	H	-
Real est ate lea sing	Б	Æ	-	ш	-	ERT	ERT	ERT	ERT	-
Public Real pas est senger ate trans lea port sing	Ш	œ	~	ZR	Е	œ	œ	#	ш	-
Proce ssed food	F	~	~	<u>~</u>	-	œ	~	~	~	22
Unproc essed food	<b>—</b>	œ	Ж	œ	F	œ	ď	ď	ď	œ
Country	New Zealand	Norway	Poland	Portugal	Slovak Republic	Slovenia	Spain	Sweden	Switzerland	Turkey

# [Figure III-4] Continue

Gambling/ Lottery	Ш
Work of art	늄
Agricultur Work al raw of art s material of art	-
)sed	-
Gover nment spend ing	-
Nompro fit Gover Cha organiza nment Used A rity tion spend goods n activi ing	ш
Cha	Ы
ostal ser vice	ш
Insur ance	ш
News Culture/ Financial Insur F	ш
Culture/ Sports	-
News	Z
<u>                                     </u>	Z
Supply Medi Educ of land Book cine ation and building	Z
Educ	ш
Medi	Z
Med ical serv ice	ш
Real est ate lea sing	ш
Public pas senger trans port	Z
Proce ssed food	Z
Unproc Proce pas est ical Med Sesded senger ate food trans lea ice port sing ical	Z
Country	United Kingdom

2. Based on the classification of goods and services in the study by Kim Seung-rae, Park Myung-ho and Hong Beom-Gyo (2007), the author subdivided the categories \* Note: 1. E indicates exemption; Z the zero-rate; R reduced rate; and T standard rate.

3. The categories used in this table do not necessarily correspond with the categories used in each country for the application of tax exemptions, the zero-rate, reduced which the author deemed necessary.

4. If multiple tax institutions are applied to subcategories in this table, s specific category, all of them are marked in this table. 5. Data as of April 2013. rate and standard rate in its own VAT system,

\* Source: OECD, Consumption Tax Trends, 2012. IBFD (www.ibfd.org).

The previous chapter introduced the VAT revenue ratio (VRR) as an indicator of the performance of the VAT system, and compared the VRRs of OECD member states in 2009. It turns out that the VRRs of New Zealand and Denmark are relatively high when considering the standard rates of these countries. As of 2009, the standard rate and the VRR of New Zealand are 12.5 percent and 99 percent, respectively, while those of Denmark are 25 percent and 59 percent, respectively. In contrast, the VRRs of Australia and Canada are low, considering their standard rates. As of 2009, Australia's standard rate is 10 percent while its VRR reaches only 52 percent. Likewise, Canada's standard rate is 5 percent while its VRR is only 49 percent. When evaluating the VAT system by the VRR, the systems of New Zealand and Denmark appear to be excellent, while those of Australia and Canada do not.

It is generally known that the VRR is affected by the standard rate and the range of the tax exemption system. When the standard rate is raised or the tax exemption, the zero-rate and reduced rate are widely applied, the VRR decreases. Accordingly, the high VRRs of New Zealand and Demark, compared to their tax rates, imply that these countries apply the VAT exemption system in a restrictive manner. On the contrary, Australia and Canada must have applied the VAT exemption system extensively, and that is why their VRRs are low despite their low standard rates.

As there is no indicator quantifying how widely the tax exemption system is applied under the VAT system for each country, this study analyzes the examples of each country on the basis of the current exemption system in each country and category in the table above.

New Zealand, with a high VRR, applies the exemption system in a highly restricted range. The tax exemption and the zero-rate are only applied to passenger transport services, medical services, land and building supply, culture and sports, and financial services and insurance to which tax exemptions or the zero-rate is applied. The country maintains a flat tax rate system and does not employ a reduced rate.

Denmark, which maintains the high VRR in spite of a high tax rate, also applies the exemption system in a small range of categories. Passenger transport services, real estate leasing, medical services, education, financial services and insurance, nonprofit organization activities, and gamble and lottery are the

categories to which tax exemption or the zero-rate is applied. Despite its high standard rate of 25 percent, the nation adopts a flat tax rate system without any reduced rate.

Let's look at the countries with relatively low VRRs compared to their low tax rates. Australia employs the tax exemption system in the categories of food, medical services and education, and Canada in the categories of food, medical services, medicines and education. When considering their low tax rates, the VRRs of Australia and Canada are low because these nations implement the exemption system in a wide range.

# 2 Amendment of the VAT System in Selected Countries

As explained above, many countries have recently revised their VAT systems. This study analyzes the background, details and progress of the amendment in the countries of Germany, Switzerland, Spain and Japan. These countries have been selected by the authors as their amendments provide helpful reference points.

### A. Germany

As of January 2007, the German federal government decided to increase the standard VAT rate by from 16 to 19 percent while maintaining the status quo on the reduced VAT rate of 7 percent. The reduced rate is applied to food, passenger transport services, books/newspapers/magazines and agricultural raw materials. Real estate leasing, medical services, education, financial services and insurance and nonprofit organization activities are exempt from VAT. Under the amendment of the tax system, the standard rate was raised while the reduced rate and its application range and exemption range stayed the same. In 1998 the German government had increased the standard VAT rate from 15 percent to 16 percent.<sup>5</sup>)

The increase in the VAT rate had been discussed since the campaign season for the 2005 federal election. Angela Merkel, the then-leader of the conservative opposition party, brought up the issue of the government budget deficit and pledged to achieve sound finances by raising the VAT rate. In 2005, the government deficit was 3.3 percent of GDP, which had exceeded 3 percent limit under the Maastricht Treaty with the EU. The plan to increase the standard VAT rate by 3 percent from 16 percent to 19 percent was recognized as the largest tax hike around that period. Such a pledge was a burden to Merkel during the election campaign. According to an approval rating survey conducted in the early stage of the federal election campaign in 2005, her conservative party held a greater than 20 percent lead in the over the then-ruling Social Democratic Party. However, the pledge provoked controversy during the campaign, and the conservative party finished just one percentage point ahead of the Social Democratic Party in the actual election. Both parties failed to pick up enough votes for the majority in parliament required to form a cabinet. As a result of three months of negotiations for the formation of the cabinet, the two parties launched a grand coalition. The Social Democratic Party, which had opposed to the VAT tax increase plan during the campaign, decided to support the plan.

As the standard VAT rate increased by 3 percent, tax revenue was predicted to grow by around 25 billion euros. This amount was about 1.1 percent of German GDP in 2007. The German government tried to reduce the burden of social security contributions through increased tax revenues. The government decided to reduce the burdens of social security contributions by 1.6 percent and unemployment benefits by 2 percent, while increasing that of the public pension plan by 0.4 percent. It was intended to create new jobs by reducing employers' unemployment benefits burden in the labor market. The increased tax revenues were first used to cut the burden of social security contributions, and the rest was used to reduce the government deficit. Consumer prices were expected to rise by 1.7 percent due to a 3 percent increase in the tax rate, and accordingly household real income was estimated to fall by an average of 0.8 percentage

<sup>5)</sup> This content is reconstructed based on Korea's data by using Consumption Tax Trends (OECD, 2012)Chapter 4, "Measuring Performance of VAT: The VAT Revenue Ratio" as a reference.

points.

After six years since the increase of the VAT rate in 2007, the tax system and social security reform policies are recognized as one of the most successful achievements of the Merkel administration. It was an opportunity for the country to preemptively enhance its financial soundness before the 2008 financial crisis. In addition, the reduced burden of social security contributions in the labor market had a positive effect on the rate of employment. The rise of the VAT rate also restrained imports and accelerated exports, contributing to the increase in a current account surplus on the consolidated foundation of the manufacturing industry in Germany.<sup>6</sup>

### B. Switzerland

In July 2010, the Swiss government announced the amendment bill for the Value-Added Tax Act. The amendment was mainly intended to switch the multiple tax rate system into a flat tax rate system to reduce the range of exemptions. It also included a plan to provide subsidies directly to low-income households by using increased tax revenues. Although several studies expected that the amendment would positively impact the national economy, the amendment was not passed in the federal parliament due to strong opposition from major political parties, labor unions and interest groups.<sup>7)</sup>

When the tax system amendment bill was announced, the standard VAT

<sup>6)</sup> Due to the zero rating for the export sector, the increase in the VAT rate has no effect on the prices of exports (in the standard of domestic currency). In contrast, the prices of imports are affected by a tax rate hike. The price increase of imports will restrain the demand for imported goods and services, leading to enhancement of the current account. If the currency of the country with an increased VAT rate is traded in the global foreign exchange market and the exchange rate is decided in the market, the currency will appreciate in the long term due to improved current accounts. Then the appreciated currency will lead to the decrease in exports and the effect of enhanced current accounts will disappear. However, Germany uses the euro along with other European countries, Since the value of the euro is not determined only by the current accounts of Germany, it may remain devaluated despite a steady current account surplus in Germany. The so-called fiscal devaluation theory is also explained in the study of Mooji and Keen (2012).

<sup>7)</sup> References include the material released in the meetings of the OECD Working Party No. 2 by Dr. AlowinMoes from the Swiss Federal Department of Finance, and Taxation Trend of Major Advanced Countries(2012 No. 2, 2011 No.2), a regular publication of the Korea Institute of Public Finance.

rate in Switzerland was 7.6 percent, and the reduced rate was 3.6 percent for hotel business and 2.4 percent for food, medicine, books and publishing businesses, and culture and sports. The categories including postal services, health and welfare services, education, nonprofit organization activities, financial services and insurance, gambling, real estate sales and leasing, and agriculture were exempted from the VAT.

According to the amendment bill, the Swiss government planned to simplify the tax system by integrating graded tax rates—7.6 percent, 3.6 percent and 2.4 percent—into a flat tax rate of 6.1 percent. Accordingly, the tax rate in the hotel business, subject to a reduced rate of 3.6 percent, was supposed to increase to a flat tax rate of 6.1 percent. The tax rate of food, medicine, books and cultural business—a reduced rate of 2.4 percent—was also supposed to face an increased tax rate. However, the categories on which standard rate was imposed were to enjoy the decrease in the tax rate. In order to reduce the range of exemptions, the government decided to maintain exemptions only for financial services and insurance, gambling, real estate sales and leasing and agriculture while abolishing exemptions for the remaining categories, including postal services, health and welfare services, education and nonprofit organization activities.

Moreover, the Swiss government planned to directly provide low-income households with subsidies by using increased tax revenues through the amendment to the VAT Act. Therefore, the overall amount of tax revenues was supposed to remain unchanged. By simplifying the VAT system and cutting the standard rate, Switzerland expected to increase its potential growth rate by 0.3 percent to 0.8 percent and reduce tax compliance costs by about 30 percent. The burden of the VAT on the average household was supposed to increase in the short term, but it could be offset in the long term by economic and income growth attributed to the increase in the potential growth rate.

Nonetheless, the bill met fervent opposition from those that would lose the benefits of reduced rates or be excluded from exemptions, including health and welfare, education, culture and sports and hotel business sectors. Major parties and labor unions also opposed the bill. Consequently, the amendment bill failed to pass the federal parliament.

Eventually, the tax system amendment bill, aimed at simplifying the VAT

system by introducing a flat tax rate system and reducing the exemption range, could not pass parliament. However, another amendment bill, designed to maintain the existing multiple tax rate system and increase the tax rate temporarily, was accepted in September 2009 by a referendum. The plan was aimed to secure a source of revenue for social security insurance services by adjusting the tax rate to 8.0 percent, 3.8 percent and 2.5 percent in a temporary period from 2011 to 2017. Around 41 percent of all voters participated in the referendum, in which 54.6 percent voted for the bill while 45.4 percent were against it, and finally the tax increase was approved.

### C. Spain

The Spanish federal government revised its VAT system twice in 2010 and 2012. Until June 2010—before the amendment—the standard rate was 16 percent, the reduced rate 7 percent, and the specially reduced rate 4 percent. The reduced rate had been imposed on passenger transport, hotel businesses, food services and cultural performance while the specially reduced rate had been applied to basic food products, medicines and books and newspapers. However, the government raised the standard rate and reduced rate to 18 percent and 8 percent, respectively. These rates increased once again to 21 percent and 10 percent, respectively, as of September 2012. Despite the two tax hikes the specially reduced rate was maintained at 4 percent.

[Table III-5] Adjustment of VAT rates in Spain

(Unit: %)

Classification	By June 2010	From July 2010 to August 2012	From September 2012
Standard rate	16	18	21
Reduced rate	7	8	10
Specially reduced rate	4	4	4

Source: IBFD \(
 \) (http://online.ibfd.org/kbase \).

The purpose of the VAT system amendment in Spain was to secure additional tax revenue and enhance the financial soundness of the government. Due to the 2008 financial crisis and the subsequent European economic crisis, the fiscal balance of Spain deteriorated. In 2007 the Spanish government achieved a fiscal surplus at 1.9 percent of GDP, but after the financial crisis in 2009 its fiscal deficit reached 11.1 percent of GDP. Accordingly, the government's budget deficit soared from 39.6 percent in 2006 to 53.2 percent in 2009. Restructuring in the financial and public sectors and labor market, and enhancement of the systems of social security contributions, income tax and VAT were included in the discussion over the tax system amendment plan to improve both economic growth potentiality and the financial soundness of the government. In particular, tax revenues are expected to grow by 0.7 percent of GDP in 2010 and by 0.4 percent of GDP in 2011 thanks to the amendment of the VAT system.<sup>8</sup>

### D. Japan

In August 2012 in Japan, the House of Representatives and the House of Councilors agreed to increase the consumption tax rate from 5 percent to 10 percent by 2015. According to the revised Consumption Tax Act, the tax rate will be increased in phases to reach 8 percent in April 2014 and 10 percent in October 2015. The increased tax revenues will be used as finance for diversified welfare projects, including basic pension, old-age allowance, nursing services and childcare service. The supplementary provision of the revised Consumption Tax Act includes a proviso clause specifying that the increase of the consumption tax rate could be halted depending on economic conditions in Japan. Attention is being drawn to see if the government can really increase the tax rate from next year. Japan introduced the consumption tax system at 3 percent in 1989, and increased the rate once to 5 percent in 1997.9)

<sup>8)</sup> Pierre Beynet, Andres Fuentes, Robert Gillingham and Robert P. Hagemann (2011), Restoring Fiscal Sustainability in Spain, OECD Economics Department Working Papers, No. 850.

<sup>9)</sup> References include Evaluation and Prospect of Increase of Consumption Tax Rate in Japan, released by the Korea Institute of Public Finance (2012) and Restoring Japan's Fiscal Sustainability in the OECD Economics Department Working Paper, No. 1050 by Randall S, Jones and Satoshi Urasawa (2013).

[Table III-6] Progress of Consumption Tax Act in Japan

Year	Details
December 2010	The Japanese government and the Democratic Party of Japan established the social security reform center and promoted the reform of the social security system.
June 2011	The reform plan for the social security and tax systems was announced, which suggested increasing the consumption tax rate by 5 percent by the mid-2010s.
February 2012	The cabinet briefly decided to reform the social security and tax systems by raising the consumption tax rate to 8 percent by April 2014 and to 10 percent by October 2015.
March 2012	The cabinet passed the Consumption Tax Act Amendment Bill for Tax System Reform,
June	The ruling and opposition parties (Democratic Party of Japan, Liberal Democratic Party and New Komeito) agreed to revise the reform plan for social security and tax systems.
2012	- The consumption tax rate will be raised as scheduled.
2012	<ul> <li>The amendment plans for income tax and inheritance tax are withdrawn,</li> <li>Discussions over the implement of the minimum pension system and the abolition of the long-term care insurance system for the elderly are deferred,</li> </ul>
June 2012	The revised bill of the amendment of the consumption tax act passed the House of Representatives.
August 2012	The revised bill of the amendment of the consumption tax act passed the House of Councilors.

<sup>Source: Evaluation and Prospect of Increase of Consumption Tax Rate in Japan, Korea Institute of Public Finance, 2012.</sup> 

The Japanese cabinet office evaluated the effect of the phased increase of the consumption tax rate on inflation and economic growth. If the consumption tax rate rises as planned, the inflation rate is estimated at 3.1 percent for 2014 and 1.6 percent for 2015. By comparison the inflation rate was forecasted at 0.7 percent in 2014 and 0.8 percent in 2015 in case the consumption tax rate remained the same. However, the predicted increase in the inflation rate is lower than the 3 percent increase in the consumption tax rate (from 5 to 8 percent) in 2014 and a 2 percent increase (from 8 to 10 percent) in 2015. In addition, the economic growth rate is also expected to rise by an annual average of 1.1

percent and a total of 4.6 percent from 2012 to 2016. If the consumption tax rate is maintained, the economy is predicted to grow by 4.8 percent during the same period.

According to studies conducted by Japan's Ministry of Finance and the OECD, a 5 percent increase in the consumption tax rate is expected to lead to a 13.5 trillion yen increase in tax revenues. This forecasted increase can be divided into each planned project as explained in the table below. 2.7 trillion yen will be allocated to introduce a new financial project, and 10.8 trillion yen will be spent to secure financing for existing welfare projects. Most of the increased tax revenues will be spent on welfare projects. Considering that welfare projects would need more budget due to inflation caused by the consumption tax rate hike, government spending is estimated to grow by roughly 800 billion yen.

[Table III-7] Consumption Tax Rate Hike and Prospect of Government Spending for Welfare Projects in Japan

Government spending projects	Amount	Conversion of consumption tax rate
Total	13.5	5.0
Introducing a new financial project	2.7	1.0
Expanding childcare service	0.6	0.2
Expanding nursing service	1.6	0.6
Expanding allowance for the low-income elderly	0.6	0.2
Securing finance for the existing welfare projects	10.8	4.0
Securing finance for basic pension	2.9	1.0
Securing finance for other welfare projects	7.0	2.7
Securing finance for welfare projects in response to the consumption tax rate hike	0.8	0.3

<sup>\*</sup> Source: Jones and Urasawa (2013), Restoring Japan's Fiscal Sustainability. Ministry of Finance Japan.

In Japan, the proportion of those 60 or older in the entire population reaches around 31 percent, and they amount to about 37 percent of all voters. The increase in the consumption tax rate increased the tax burden on the elderly, who have no source of income and a high propensity to consume. In other words, elderly voters are likely to oppose the government plan of raising the consumption tax. However, the Japanese government earned support from the elderly by planning to allocate the increased tax revenues for welfare projects in which the beneficiaries are concentrated in the elderly. According to a poll conducted right before the House of Representative election in June 2012, 38.2 percent of the respondents supported the plan while 61.8 percent were opposed. However, the proportion of voters in favor of the plan was higher among elderly voters. Around 48.1 percent of those over 60 and 55.2 percent of those over 70 supported the increase in the consumption tax rate. In contrast, only 29.6 percent of voters in their 30s were in favor.

### E. Summary and Implication

This study looked into the amendment cases of the VAT system focusing on Germany, Switzerland, Spain and Japan. In Germany, the VAT rate increase plan was officially discussed for the first time as an election pledge. In the 2005 federal election, Angela Merkel, the then leader of the opposition party and the candidate for the Chancellor of Germany, informed voters of the national financial status and suggested the VAT increase plan as a solution, thereby successfully seizing power despite the fact that tax increase pledges are generally unpopular among voters. The amendment of the VAT system, which enhanced the financial soundness of the government and reduced German companies' burden of social security contributions, is recognized as one of the most successful achievements of the Merkel administration.

In Switzerland, the amendment of the VAT system was discussed to simplify the system by introducing a flat tax rate and reduce the range of tax exemptions. Although many studies supported the logic behind this policy, this simplification amendment bill failed to pass the federal parliament. However, another plan to temporarily increase the tax rate to secure finance for social security insurance was passed later by referendum. In order to increase tax revenues, generally

reducing tax benefits, such as the VAT exemption and reduced rate, is more efficient economically than raising the overall tax rate. This case of Switzerland, however, demonstrates that that the former is politically more difficult to build a social consensus on than the latter.

In Spain, the government raised the VAT rate twice in 2010 and 2012. In 2009, the fiscal deficit of the government exceeded 11 percent of GDP, and the accumulated government deficit recorded more than 53 percent of GDP. Given this condition, the Spanish government revised the VAT system on two occasions to improve the financial soundness of the country.

The Japanese government has been suffering from deteriorating fiscal health as well. As of 2012, it is estimated that the gross public debt has exceeded 220 percent of GDP and the net public debt—the gross public debt minus the value of the government's financial assets—has gone beyond 135 percent of GDP, which is the second highest after Greece among the OECD member states. In such poor financial conditions, the Japanese government has carried out the consumption tax increase plan to secure finance for welfare projects in response to aging population. Although the amendment plan to increase the tax rate in phases to reach 10 percent by 2015 passed the parliament, the supplementary provision of the revised Consumption Tax Act includes a proviso clause that could put a stop to the tax increase depending on economic circumstances, drawing more attention to whether or not the consumption tax increase plan is actually implemented. In the process of discussion over the amendment plan, it is noteworthy that the government succeeded in drawing support from elderly voters by pledging to utilize the increased tax revenues for basic pensions, allowances for the elderly and nursing services—the welfare services whose beneficiaries are mostly senior citizens.



## Conclusion

In principle, a VAT is supposed to be imposed on every good and service creating added value. Since many types of transactions are taxable, if the VAT system is applied differently to goods and services depending on minor differences, the system cannot be impartially managed. Therefore, the VAT system should be maintained as simply as possible.

To design a simple VAT system and implement it in an efficient and fair way, the following conditions must be fulfilled.

First, the VAT system should consist of a flat tax rate. If the system includes multiple tax rates with a reduced rate in addition to the standard rate, every sector in the economy will petition the government for a reduced rate. Those sectors that enjoy the benefits of the reduced rate will work hard to hold onto the tax reduction benefit. The case of the Swiss government, which once proposed the VAT system simplification bill but failed to pass it, shows that it is very hard to return to the flat tax rate system once multiple tax rates are settled. In countries with a flat tax rate, including Korea, New Zealand, Israel and Denmark, the VAT revenue rate (VRR) is relatively high despite low VAT rates. This indicates that these countries are running the VAT system efficiently in terms of VRR. Therefore, the VAT system with a flat tax rate plays an essential role in operating the system in an effective way and increasing VRR.

Second, the exemption system including the VAT exemption and the zero-rate must be imposed on a minimum range of goods and services. The VAT zero rating should be applied strictly to exported goods and services, and the VAT exemption should be granted only when a specific sector needs to be boosted

or social equity needs to be considered. Compared to other countries, Korea's VAT system is distinctive in that it provides the zero rate for food, medical services, medicines and oil for agricultural use. Whether the exemption for these categories, along with financial services and private education, is maintained at a proper level needs to be discussed. This study analyzed the income redistribution effect and the tax revenue increase/decrease effect that can be caused when food, private education and medical services are shifted to be taxable, at least at a limited level allowed in the analysis model. There should be additional analysis to see what would change when other sectors are shifted to be taxable.

Third, the VAT rate must be set at a minimum level that enables the government to achieve a balanced financial status. In Korea, the VAT is the single largest source of tax revenue, a similar situation when compared to other countries. This is probably because the extent to which VAT distorts the efficiency of economic activities is less severe than that observed in other taxes. In particular, the export sector can receive a complete tax refund thanks to the zero rating, and thus no economic activities are distorted by taxation in this sector. However, the range of the VAT system is very extensive and low-income households have to pay taxes depending on their consumption level. Therefore, if the government plans to increase the VAT, it is hard for it to achieve social consensus. If the government needs to raise the VAT rate to maintain financial soundness in response to increased government spending, it should notify the general public of detailed information and create social consensus. The case of Germany, which successfully increased the tax rate as a pledge in the 2005 election, shows how important social consensus is to increase tax rates.

Meanwhile, there are still many themes that need to be studied to enhance the VAT system. One theme of great importance is how to improve the VAT system to keep pace with the era of digital economy. As capital, labor force and technologies move all over the world freely and the international and digital trade is invigorated, some try to avoid the burden of VAT in the current tax system that imposes taxes based on a place of business. When a non-resident business operator supplies intangible goods and services to end-users in Korea, this operator could be exempt from the VAT burden for having no workplace within Korea, even though it is clear that the end-users are in this country.

Business in such a form includes professional services such as legal, accounting and consulting services and online contents such as software, smartphone applications, movies and music files. If a supplier moves his/her workplace outside Korea or trades with Korean consumers through a business operator in other countries, he or she can avoid the VAT burden. Then those who establish a workplace within the country or do not relocate their existing workplaces outside the country will have to bear the burden since they have to charge consumers the VAT, and thus lose price competitiveness compared to their rival companies. This goes against the principle of fair competition and undermines the equity of taxation. Since it is especially easy for operators of digital trade to move workplaces, they are more likely to avoid the VAT burden by relocating their workplaces to other countries.

In EU countries, Norway and Australia, non-resident business suppliers who provide specific goods and services through international digital trade should register as a supplier and pay the VAT mandatorily, although they are not registered as a business operator and have no workplace within these countries. The governments of these countries are trying to increase the equity of taxation by imposing taxes on international digital trade based on the destination principle of taxation. Korea should enhance its current VAT system to keep pace with the era of digital economy.

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