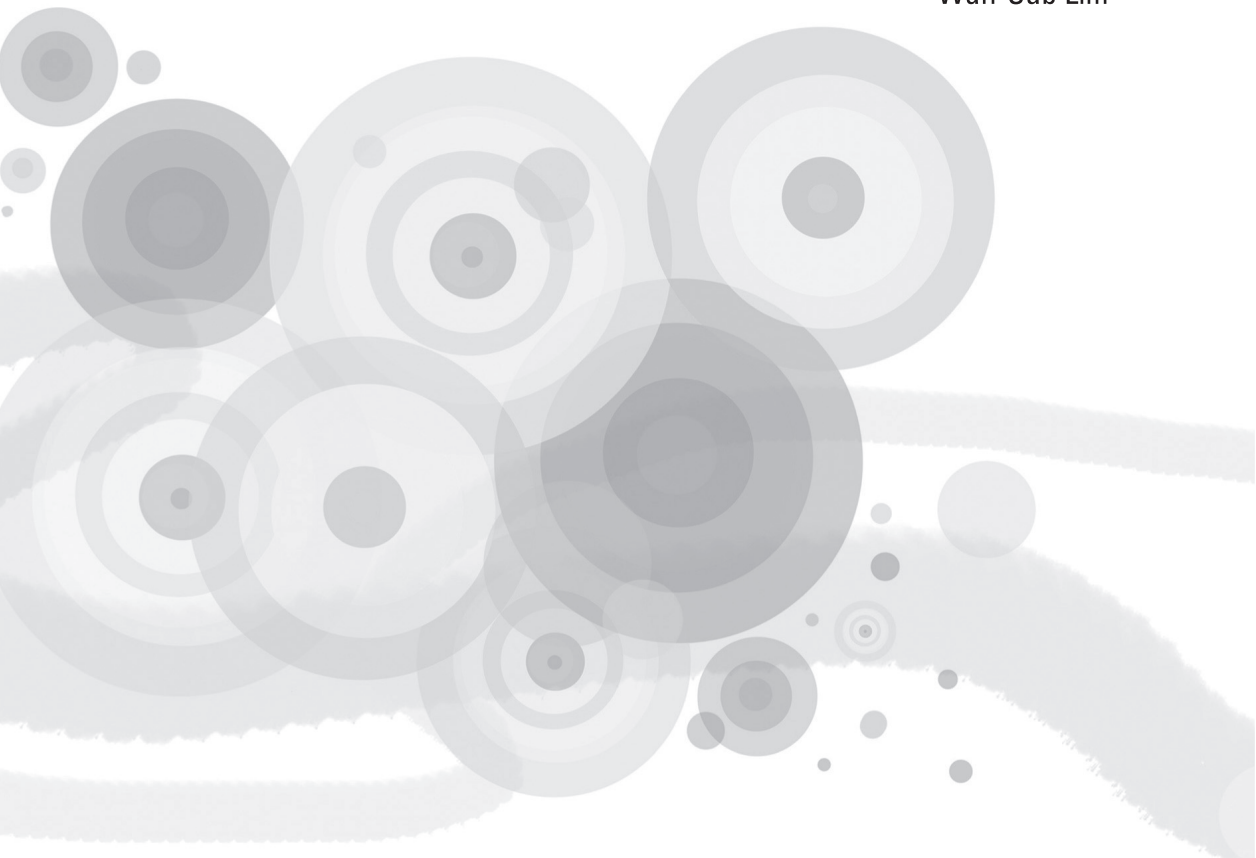




# A Study on the Relation Between Welfare Level and Tax Structure

Gun-Chun Ryu  
Wan-Sub Lim



A Study on the Relation Between  
Welfare Level and Tax Structure

Gun-Chun Ryu, Research Fellow

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Chapter

01

# Introduction





## Chapter 1

# Introduction

<Necessity of research> With the growing necessity to cope with the increasing demands for health and welfare and accompanying diversification in desires for good health and welfare in our society along with deepening low birth rate, aging and emergence of new social risks, etc., national expenditure on health and welfare fields are expected to expand continuously. Nevertheless, due to the decrease in growth potential and financial stress, etc., financial resources to be allocated to meet the budget for health and welfare demands are limited.

Therefore, in the situation where the share of health and welfare budget in national finance is anticipated to grow bigger, the kind of research that delves into the structure of national fiscal burden (tax burden plus social welfare contributions) in which such increase can be borne is required.

<Purpose of research> With a view to gather hints on the structure of national fiscal burden (tax burden plus social security contributions) that will be able to meet the increasing welfare finance of Korea, the typology of welfare state regimes that show the practical relationship between the structure of bearing national (fiscal) burden and welfare level in advanced welfare states and how this has changed with time will be examined.

<Contents of Research> In section 2, preceding researches on relationship between welfare and taxation structure, and welfare

financing types will be considered for the purpose of drawing implications for theoretical analysis; in section 3, data resources and analysis method will be suggested; in section 4, results of analysis drawn through the analysis method and data explained in section 3 will be suggested; finally in section 5, conclusions of analysis and implications for Korea will be suggested.



Chapter

02

# Preceding Researches





## Chapter 2

# Preceding Researches

### 1. Preceding researches on the relationship between welfare and taxation structure

In regard to the relationship between welfare and tax structure, following literature was consulted.

In the formation of basic structure of this research, Kato (2003) was helpful, and the contents of the literature that are related to this research are summarized as follows:

Kato (2003, 34) argued that existing industrially advanced countries, in a general tendency, have transferred main source of tax revenue from such simple indirect taxes as tariff to income taxes, and then to general consumption taxes including value-added tax (Kato, 2003, 34). In other words, in the initial period after the World War II, there was worldwide adoption and spread of progressive taxation simultaneously, based on the trend of academic circle that comprehensive income tax was ideal. Afterwards, in the 1980s, the worldwide trend in tax reform was in opposition to the trend after the World War II. In those days, income tax failed to respond to inflation, had become complex and its taxation base was impaired due to reductions, etc., and was susceptible to worldwide depression and stagflation since the mid-1970s. Under the circumstances, universal trends in this period were first to expand taxation base by simplifying

income tax, through the reduction of the number of income brackets and abolition of reduction etc. Second, to lower rate of corporate tax in the recognition that high corporate tax rate, which seemed to bring about capital outflow in the process of globalization, was an obstacle to economy and securing revenue, and thus increase in related taxation base. Finally, to depend more on regressive taxes in the process of recouping decrease in tax revenue, which results from decrease in income tax and corporate tax. Consumption tax and social security contributions that are levied on a fixed rate are representative regressive taxes.

Even in such transition, however, looking into individual states shows that the characteristics of each state, including the differences in total tax level, namely between high-tax state and low-tax state, in the method of distributing tax burden among capital, labor, consumption, and particularly in the characteristics in depending on consumption, remained unchanged (Requoted from Steinmo and Swank, 1999, 23; Messere, 1998; Kato, 2003, 17). In other words, high-tax states, while maintaining total tax revenue in high level and the existing level of direct taxes on income and profit at the same time, pursued additional revenue from regressive taxes. This resulted in becoming more dependent on such regressive taxes that are levied on a fixed rate as consumption tax and social security contributions. In this aspect, mature welfare states are also dependent on regressive taxes in addition to progressive taxes, which is the method that is regarded as the most desirable for welfare financing. And the most representative of such state is Sweden (Kato, 2003, 19). In contrast, low-tax states maintained low level of total tax revenue,



and were less dependent on consumption tax in the composition of tax revenue.

Thus, in terms of overall average level, common aspects are observed but structural differences of individual states are also maintained. To explain these opposite phenomena observed on the surface, there is an assumption that a certain change happened that caused this structural differences between the initial period after the World War II, when common trends dominated worldwide, and the 1980s, for an instance, between 1965 and 1980 (Kato, 2003, 13-14).

Actualization of the assumption is as follows (Kato, 2003, 24): welfare states, which institutionalized the capacity for boosting revenue early enough could expand or maintain social expenditure to resist financial crises which happened since 1980s. In the same context, such states that are late with such institutionalization will be inclined to reduction of welfare and social expenditure in the advent of financial crisis. 'Early' here shall be regarded as the period of time before the high growth after the World War II ended due to worldwide economic recession caused by oil shock in the early 1970s, and 'late' as the period of time since the mid 1980s when regression of welfare state regimes were anticipated in all advanced industrial states.

It is also argued that value-added tax (VAT) should be used as a reference point regarding the time of structural change in taxation (Kato, 2003, 24-28). This is because value-added tax had not been widely known before several European nations simultaneously introduced it in the late 1960s, and structural changes in each country, which increased significantly since

then, can be well explained. This is based on the fact that enforcement of value-added tax, a regressive tax levied in a fixed rate on a broad taxation base, has a strong power of boosting revenue.

With this transition to dependence on regressive taxes for revenue as a standard, advanced industrial states are divided into two groups. As mentioned above, this is based on the fact that the time of introduction of value-added tax serves as a good criterion in comparing tax structure between nations except for few exceptions (Kato, 2003, 28).

One group consists of nations that show a typical transition in the source of revenue by introducing value-added tax long before governments went through chronic budget deficit, to which group most West European nations belong. These nations, even before introduction of value-added tax was a compulsory requirement for joining the EU, had general consumption tax in any shape or form. Besides, a conventional argument holds that these nations have strong labor union, and as a result, have high welfare expenditure. However, only Denmark and the Netherlands satisfy those three conditions (Kato, 2003, 30).

The other group consists of countries that attempted the transition of revenue source through introduction of value-added tax only after experiencing budget deficit. They introduced value-added tax after the mid-1980s when they were already suffering from chronic budget deficit. Here belong non-European countries of New Zealand, Japan, Canada and Australia, of which the public sector expenditure and social expenditure are not high (Kato, 2003, 32).

There is an additional group which consists of those countries that are newly entering the category of advanced industrial states. As late starters, they knew, from the experience of advanced industrial states, the existence of various methods of raising revenue and the possibility of rapid expansion of public sector. Therefore, they could introduce value-added tax comparatively earlier than existing advanced industrial countries. In this sense, they are considered to be on a different course in the aspect of development to modern tax system and institutionalization of social security system. Korea, Taiwan, etc. belong to this group (Kato, 2003, 34).

Kato (2003, 42-51) conducted two-stage analysis on random effect model using OECD data of 1965-1992. Dependent variable of the first stage was the share of social expenditure in GDP and that of second stage is the share of general consumption tax in GDP. The most important variable of this research is the relationship between social expenditure, the dependent variable of the first stage, and the general consumption tax of the second stage, which is the independent variable of the second stage. The result was that what had positive correlation in all related models of about 67% explanatory power was significant on 1% of significance level.

Based on the result, conclusions were reached as follows (Kato, 2003, 51-52):

First, nations with bigger public sector and social expenditure will try to earn revenue needed to be raised correspondingly more from all kinds of taxes, particularly from general consumption tax, a kind of regressive tax.

Second, the process in which increasing regressive taxes result in the increase in social expenditure can be inferred as follows: at first, increase in regressive taxes means easy increase of revenue, and this encourages public sector to grow bigger, and such bigger public sector results in improvement in income distribution through redistribution in existing welfare states. Accordingly, since members of society in such nations come to experience the effects of income redistribution, improvement in government's ability to secure fiscal resources constitutes a political condition that can resist the welfare reduction trend that has been prevalent in welfare states since the 1980s. Thus it is revealed that the timepoint when regressive tax system is introduced after such financial and political interpretations can be a very important factor for remaining as a welfare state and particularly for resistance against welfare reduction. To put it more specifically, it can be inferred that those countries that introduced regressive taxes before the economy ceased high growth and came under chronic budget deficit had the chance to spend the revenue from regressive taxes on social expenditure and people who received the benefit from this would approve of such tax collection; while in those countries that introduced regressive taxes later to compensate for budget deficit, people had no chance to benefit from social expenditure, and naturally have more rejection to tax increase. Now those times when simple increase in tax progressivity without consideration of benefit was praised are passing.

Lindert (2004) studied the relationship between social expenditure and economic growth since the 18th century in historical perspective. He discussed tax as welfare finance in the part where

the example of Sweden (pp.264-295) was presented and in the last part that amounts to conclusion (296-308). Particularly, in the part that presents Sweden as an example, he discussed social expenditure that contributes to economic growth.

Yoon Hong-shik (2011), for the purpose of finding out whether there exists such a tax structure that is friendly to universal welfare states, drew questions from the above mentioned literature of Kato (2003), Lindert (2004), etc. and showed, in the process of answering them, that there exist universal tax states corresponding to universal welfare states.

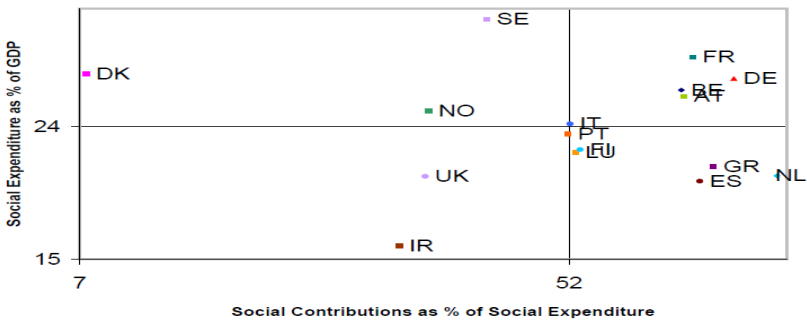
## **2. Preceding research on types of welfare financing**

This research is intended to reveal whether there is correspondence between existing types of welfare state and types of welfare financing. Of preceding researches related to this subject, Bonoli (1997) focused on welfare financing structure of welfare states, classified states into groups in accordance with the level of social security expenditure (the share of social expenditure in GDP) and importance of social contributions in the combination of financial resources (the share of social contributions in social expenditure). In other words, classification of Bonoli considers the level of welfare provided on one hand and financing structure in the welfare system on the other.

The four groups of welfare states according to Bonoli's typology can be divided as follows. First is the group of social democratic states in Northern Europe, characterized by high-level welfare provided through social expenditure and low proportion of social

expenditure to GDP made possible by social contributions; second is the group of conservative states in the European Continent characterized by high proportion of social contributions to social expenditure and high proportion of social expenditure to GDP; third is the group of liberalist states characterized by both low-level social contributions and low-level social expenditure; and last is the group of Southern European states characterized by high-level social contributions accompanied by low-level social expenditure, which is due to their underdeveloped conditions.

[Chart 1] Bonoli's Typology



Data: Recalculation using Eurostat of 2003 and OECD data  
 Data source: Dieckhoener, C. and Peichl, A. 2009.



Chapter

03

# **Source of Data and Analysis Method**







## Chapter 3

# Source of Data and Analysis Method

### 1. Source of data

As for taxation data for comprehensive research of 19 OECD member states, OECD Revenue Statistics (2010): Special feature: Environmental Related Taxation (2010), and OECD Tax Database (2011) on the website [www.oecd.org/ctp/taxdatabase](http://www.oecd.org/ctp/taxdatabase) were used to analyze income tax (personal income tax, corporate income tax), social security contributions (employee, employer), payroll tax, property tax, goods and service tax (general consumption tax, special consumption tax), and other taxes from 1965 to 2008 by category. Besides, social expenditure data in OECD SOCX Data was also used.

### 2. Analysis method

Based on the study of the literature of preceding researches, following questions can be raised as to how Korea should secure financial resources to meet increasing demands for welfare in the future. And this matter is relevant to analysis method of this research.

At first, 19 nations to be analyzed for consideration of the questions will be examined after classifying them by type of welfare regime into social democracy in Northern Europe

(Sweden, Finland, Norway, Denmark), conservatist in the European Continent (German, France, Belgium, Austria, the Netherlands), British-American liberalist (Britain, America, Canada, Australia), Southern European (Spain, Italy, Portugal, Greece), and Japan and Korea. At the same time, diachronic observation on each item will be made by every five years from 1965 to 2008, so that influences of the oil shock in the early 1970s, welfare reduction resulted from budget deficit in the 1980s, and globalization which began in the 1990s can be considered as well. Time division was applied also taking account of the phases in the progress of welfare state regime that are closely linked with those events.

The specific questions to be dealt with and the method of analysis applied in this research are as follows:

- 1) It is necessary to confirm by questioning the obvious fact whether those countries with high social expenditure level have high national burden which includes tax and social security contributions.
- 2) For this purpose, a search will be made whether there is a structure of spending that can sustain high national burden. This is because such trends were observed in existing researches that, with the increase in revenue, spendings related to family sector increase in all types of welfare states, those on unemployment and active labor market policies in high-burden states (Northern European type and European continental type), while they decrease in low-burden states

(British-American type). This was interpreted that job-related labor market policies are important for high-burden type states, and family-related spendings that also cover measures against such new social risks as working mothers, etc. should be increased as well. (Yoo, Geunchoon et al, 2008, 160-164) Lindert(2004, 281-290) argued that in the case of investing in jobs for women and child care, such social spendings that are spent on education and retraining, and delaying retirement contribute to economic growth.

- 3) An observation will be made on the changes in the proportion to GDP of indirect tax vs. direct tax, progressive tax vs. regressive tax, and corporate tax vs. non-corporate tax in high-welfare states.
  - a. Entire tax structure will be classified into the income tax (personal income tax, corporate income tax), social security contributions (employee, employer), payroll tax, property tax, goods and services tax (general consumption tax, special consumption tax), and other taxes to be suggested for 19 countries classified by welfare state regime for the purpose of providing information for other discussions.
  - b. By observing the changes in the proportion of indirect tax and direct tax in high-welfare states, a tax structure that corresponds to increasing welfare demands will be imagined. According to the earlier discussion, this is the direction in which use of all taxes, including general consumption tax, an indirect tax, should be oriented.

- c. By observing the changes in the proportion of progressive tax and regressive tax in high-welfare states, a tax structure that corresponds to increasing welfare demands will be imagined. According to the earlier discussion, this is the direction in which use of all taxes, including general consumption tax, a regressive tax, and social security contributions, should be oriented.
  - d. There is an argument that trend goes in the direction of reducing corporate tax for the reason of bad influence on economy and tax revenue due to capital outflow in relation to globalization. To confirm if the argument is right, changes in the proportion of corporate tax and non-corporate tax will be observed.
- 4) Whether high burden and high welfare correspond with each other will be examined based on Bonoli (1997)'s classification which divides states focused on the importance of social security contributions.



Chapter

04

# Analysis Results





## Chapter 4

# Analysis Results

### 1. Trends in the tax burden- , social security contribution- , national burden ratio and social expenditure in major OECD countries: Is high welfare expenditure accompanied by high ratio of national burden?

To make this analysis, following assumptions are made. The purpose of this analysis is to prove that where social expenditure is high, national burden is also high.

- The factors that can disable the correspondence between high welfare and high national burden are budget deficit and welfare expenditure made through redistribution of existing expenditure. Since these two cases do not last for long and their size is not big as well, a conclusion is reached that high welfare and high national burden correspond with each other.
- Social democratic states and conservative states, of which the welfare level is higher than the average of 19 states, will show higher ratio of national burden.
- In terms of composition of national burden, social democratic states, compared to conservative states, will show higher tax burden ratio than the ratio of social security contributions, and vice versa in the case of conservative states.
- Since Southern European states can be interpreted to be in

the transition to conservative states in terms of welfare except for the specificity related to the role of family, welfare level there will get higher, but burden level can show unstable condition due to other factors including political reasons, etc. Showing the tendency of conservative states, the proportion to social expenditure of social security contributions in Southern European states will be comparatively high.

- British-American liberalist states, and Japan and Korea will show low welfare tendency, lower than the average of 19 countries; and the same will be true with national burden.

To confirm the above mentioned assumptions, the 19 OECD states, the subjects of the research, were examined for the years of 1965, 1980, 1995 and 2007 and the results are as follows:

Looking at the year 1965, the data regarding social security expenditure in OECD SOCX Data does not exist, but above-written assumptions can be confirmed in other matters. Specific figures can be referred to in the tables of appendix. Besides, it is premised that the difference in public expenditure among advanced countries was not big in the 1960s (Rothstein, 1998, 18; Public expenditure as percent of GDP was 28% in the case of America and 29% in the case of the average of Northern European states). First of all, the national burden ratio of social democratic states in Northern Europe and conservative states in the European Continent are higher than the average of 19 countries. Exceptionally, Britain, one of British-American liberalist states, is a high-burden state with national burden ratio higher than the average. In terms of the ratio of social security burden, conservative welfare states



in the European Continent show the ratio higher than the average as anticipated, and of Southern European-type states, a similar type to conservative type, only Italy shows the ratio higher than the average, being highly dependent on social insurance. All the social democratic welfare states in Northern Europe show low dependency on social insurance as of 1965.

In 1980, Northern European-type states (only Norway is little lower than the average), continental type-states and Italy of Southern European-type states belong to high welfare-type states. These states, except for Italy, all belong to the group with high national burden ratio. In regard to social security burden ratio, continental-type states remains as high-social insurance type as they were in 1965; but, unlike in 1965, Northern European states show increase in the ratio of social security burden together with increase in national burden ratio with all of them remaining near the average (Finland, Norway) or exceeding the average (Sweden). This is interpreted that in Northern European states, representatives of universal welfare states, the contents of high burden are distributed between tax and social security burden. Only, Denmark, unlike other Northern European states, show the second highest national burden ratio while depending very little on social security burden for fiscal resources, which means the country shows extremely high dependence on taxes for welfare finance as well as public expenditure. Considering that Denmark is a universal welfare state, it is revealed that high-welfare universalism of Northern Europe can be sustained by two kinds of tax systems. In terms of ratio of social security burden, all the states which belong to British-American type are low;

particularly that of Australia is almost none, showing, as a low-welfare state, a similar tax structure to that of Denmark. Of those states belong to British-American type, only Britain belongs to group of states with high national burden ratio as it was in 1965. Of Southern European states, Spain, like Italy, has turned into a type that is highly dependent on social insurance.

As of 1995, Northern European-type and continental-type states are high-welfare states with their welfare level higher than the average. Of Southern European states, only Italy has dropped out of the group of high-welfare states; instead, Spain has become a high-welfare state. Both Northern European-type states and continental-type states, which are high-welfare states, show high burden ratio. Of the other states, only Italy, a Southern European state, exceptionally shows high burden ratio. Britain has fallen out of the group with high burden ratio for the first time. As to the ratio of social security burden, changes detected in 1980 remain the same. In other words, in addition to continental-type states where the ratio of social security burden is originally high, the states that belong to Northern European type, except for Denmark, have maintained increased ratio of high social security burden (only Norway is near the average). Of the states that belong to Southern European-type, which is similar to continental type, Spain and Italy have become the type highly dependent on social insurance, while Portugal and Greece are approaching the average. Japan, also, is approaching the average in terms of the ratio of social security burden, while Korea falls far short of the average in all of social security expenditure, national burden ratio and the ratio of social security burden.

Looking at 2007, Northern European type (only Norway is lower than the average) and continental type (except for the Netherlands which has become lower than the average) remain as high-welfare states. In addition to them, all Southern European-type states (Spain and Greece are near the average) have notably moved in the direction to high-welfare states. With regard to national burden ratio, Northern European-type and continental type-states (Germany only show the ratio lower than the average), which are high-welfare states, still show high ratio of national burden. Of the other states, Italy out of Southern European states, shows high burden ratio and that of Spain is near the average. With regard to the ratio of social security burden, changes detected since 1980 remain the same. That is, besides continental type, of which the ratio of social security burden is originally high, Northern European-type states (only that of Norway is lower than the average) and all Southern European-type states show high ratio of social security burden. Korea still falls far short of the average in all the dimensions of social security expenditure, national burden ratio and ratio of social security burden.

Overall consideration of the discussions described thus far shows that all Northern European-type and continental-type states, which are high-welfare states, display high burden. Unlike 1965, since 1980s Northern European type shows high level also in social security burden with the ratio higher than the average, though a little lower than that of continental type. Instead, continental type is lower on average in tax burden, another part of national burden ratio. This means both tax ratio and the ratio

of social security burden are above the average in universalistic welfare states that pursue high welfare; and in Northern European states, which are a little more universalistic, tax burden is comparatively higher, while in continental-type states, which are social insurance-type states where security is focused on provision of good jobs, the ratio of social security burden is comparatively higher. Of the universalistic states, Denmark is the country that displays a distinctive characteristics: Though being a high-welfare state, it shows extremely high dependence on taxes with little dependence on social security burden (since 1995 according to the data of this research).

On the other hand, in the states that belong to British-American type, which is a low-welfare and low-burden type, both the national burden ratio and ratio of social security burden are lower than the average with the exception of Britain's unusually high national burden ratio in the past. Usually, states that belong to British-American type have both tax burden and social security burden, but Australia shows a unique condition that is heavily dependent on taxes with little burden of social security.

In the case of Southern European type, which is classified as similar type to continental type, social security expenditure in the region grows bigger as time approaches nearer to recent times, showing the trend that states in the region are turning into high-welfare states, and correspondingly, the ratio of social security burden is also on a rising trend. On the other hand, in terms of the ratio of total national burden including tax burden, Italy is on high level and Spain is near the average in 2007. They are those Southern European-type states that are having

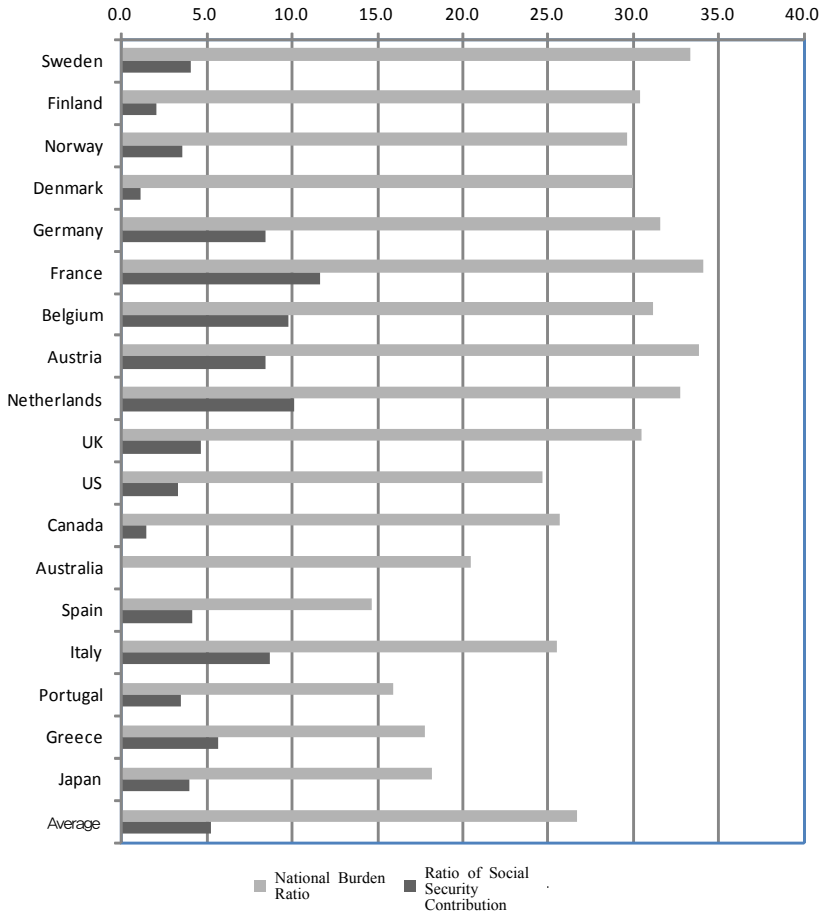
trouble these days. A simple comparison between welfare level and burden level of them, without regard to their inefficient system, suggests that the reason for the trouble they have since 2008 can be found in that they failed to form a firm high-burden structure as those of advanced welfare states while moving into the direction of high welfare,

In the case of Japan, similarly to Korea, all of its social security expenditure, national burden ratio and ratio of social security burden remain under the average, with the recent exception of the ratio of social security burden surpassing the average; accordingly, it can be said this country belongs to low-welfare and low-burden type. However, considering its comparatively high ratio of social security burden, the nation can be regarded to be under-developed form of continental type, similarly to Southern European-type states.

Korea is similar to Japan, but falls far short of Japan in all dimensions, and also can be regarded to be under-developed form of continental type, similarly to Southern European type.

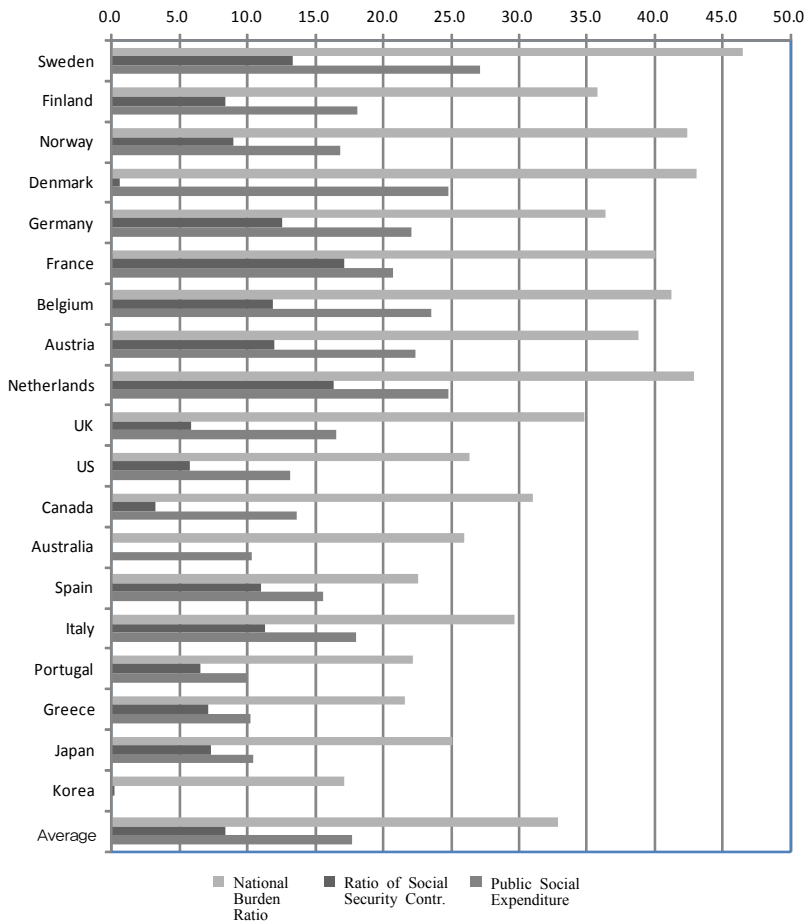
In case welfare demands increase and revenue needs to be financed in Korea, considering that its system is focused on social insurance, both tax and social security burden will have to be risen as in continental-type states; however, social security burden is expected to be comparatively higher than tax burden.

[Chart 2] Comparison of National Burden Ratio and Ratio of Social Security Contribution of OECD Member States - 1965



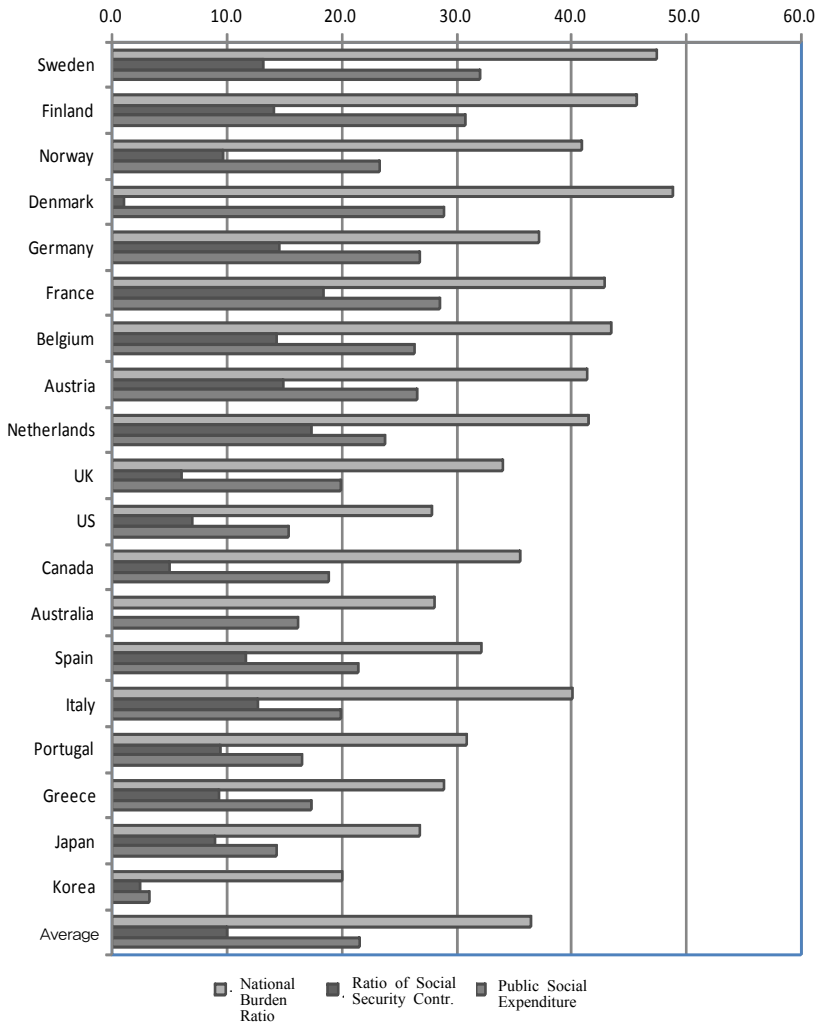
Data: Used OECD.stat, and Revenue Statistics.

[Chart 3] Comparison of National Burden Ratio, Ratio of Social Security Contribution, and Social Security Expenditure of OECD Member States- 1980



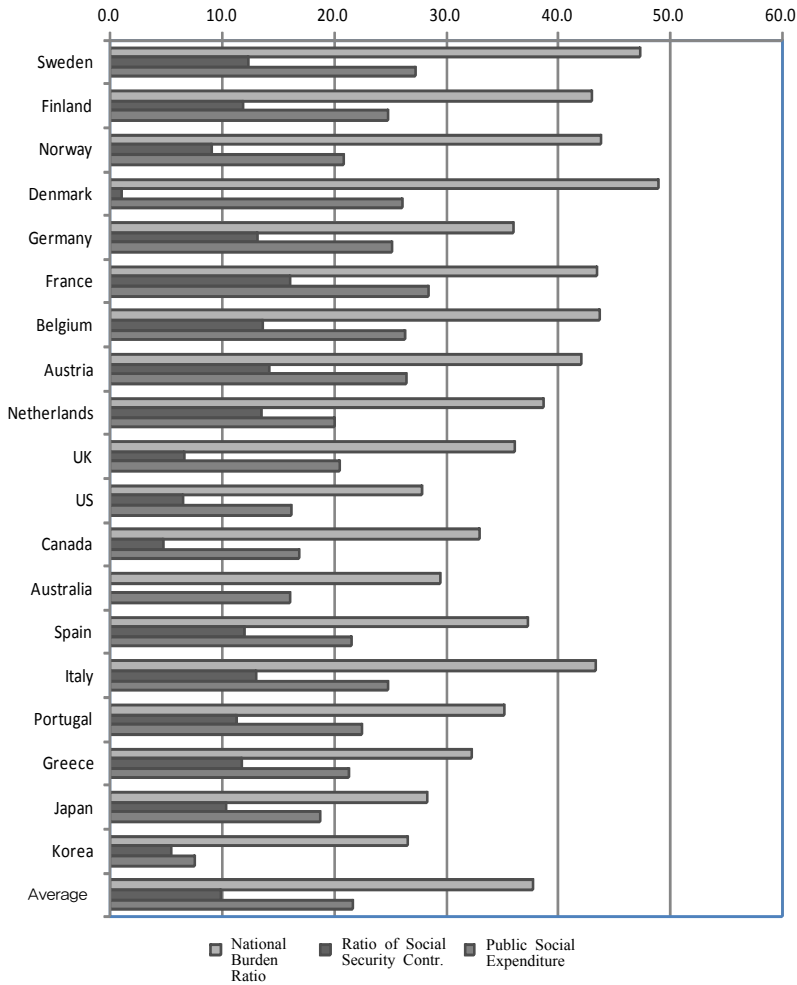
Data: Used OECD.stat data

[Chart 4] Comparison of National Burden Ratio, Ratio of Social Security Contribution, and Social Security Expenditure of OECD Member States - 1995





[Chart 5] Comparison of National Burden Ratio, Ratio of Social Security Contribution, and Social Security Expenditure of OECD Member States - 2007



Data: Used OECD.stat, and Revenue Statistics.

## 2. The social expenditure structure that can sustain high burden

Whether there exists such expenditure structure that enables high burden will be examined. For this purpose, the assumption is that spendings related to family, unemployment and active labor market policy are comparatively high in those states that belong to high-welfare and high-burden type in OECD SOCX Data. On the other side of the assumption, an underlying assumption is that such spendings assist economic growth and thus make high burden, which makes high welfare possible, sustainable.

Whether this assumption is observed in reality will be confirmed from the following charts. For specific figures, refer to the subtable showing 'Changes in Social Welfare Expenditure' of Major OECD States" in appendix.

In 1980, expenditure on family is higher than the average in Northern European-type and continental-type states, which are high-welfare and high-burden states. In other areas, exceptionally Britain, a state which belongs to British-American type, shows expenditure on family above the average. In this period, active labor market policy is not full-fledged on average, and states are more dependent on unemployment policy. Finland, Netherlands, and Britain are the states that can be said to have an active labor market policy, and that of Spain is not significant. In terms of expenditure on unemployment policy, Denmark, Belgium, Spain, Netherlands, Britain and Canada show higher expenditure than the average. However, not a pattern that is relevant to this research on high welfare and high burden cannot be found.

In 1990, expenditure on family is higher than the average in Northern European-type and continental-type states, and that of Northern European type is higher. Other than these states, Britain and Australia show it about the average. In this period, active labor market policy has become more significant than the past on average, but it is still less significant than unemployment policy. Accordingly, it is difficult to find out any above-mentioned pattern yet. However, Northern European-type (Sweden's expenditure is the biggest) and continental-type states (Netherlands' expenditure on family is the highest; and only that of Austria is lower than the average), which are high-welfare and high-burden states, already tend to show the bigger expenditure on family than the average. Other than them, Spain's expenditure on family is bigger than the average, and that of Britain and Canada are near the average. With regard to the expenditure on unemployment policy, Denmark, Belgium, and the Netherlands, of high-welfare and high-burden states, show big expenditure on unemployment; and there is no other state among high-welfare and high-burden states with the expenditure on unemployment policy bigger than the average. Of those states that belong to low-welfare and low-burden type states, Spain, Britain and Canada show high expenditure on unemployment policy. However, considering that expenditure on unemployment reflects the unemployment condition at the time, it can be said this factor, in general, has no specific relationship with economic growth, which is one factor of the research. However, in the case of Denmark and the Netherlands, it is possible to explain that the expenditure on unemployment benefits in these states is high because they were given as part

of generous welfare policy of the so-called golden triangle model.

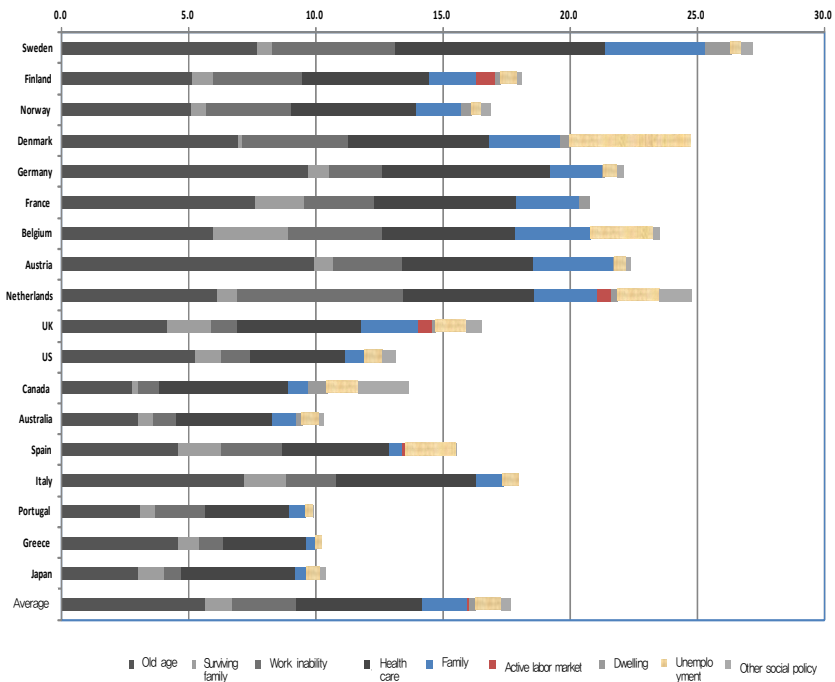
In 2000, Northern European and continental-type states, which are high-welfare and high-burden states, show the expenditure on family higher than the average except for the Netherlands, which supports the above written assumption. Other than them, Britain and Australia show high expenditure on family, which is judged to be peculiar tendency of these states. Active labor market policy has grown more significant and has been positioned as important policy by now. All high-welfare and high-burden states show the expenditure level above the average with the exception that the level is a little lower than the average in Austria and Norway. This also is judged to support the above written assumption. Of the other states, Spain's expenditure on active labor market policy slightly surpasses the average, which also is judged to be a special tendency of an individual state. When it comes to expenditure on unemployment policy, as a significant case, Denmark, of high-welfare and high-burden states, still shows big expenditure on unemployment policy, and that of Belgium and Finland have become comparatively bigger. In all the other high-burden and high-welfare states except for Norway, the expenditure on active labor market policy is bigger than the average, which is judged to support the above written assumption. Of all the other states, only Spain shows the expenditure on unemployment policy above the average, which is also judged to be a special tendency of an individual state. Spain, particularly, shows this tendency also in 1980 and 1990, which supports the judgement that it is a tendency of an individual state.

In the case of 2007, the same expenditure structure as seen in 2000 exists. In other words, Northern European and continental-type states, which are high-welfare and high-burden states, show the expenditure on family higher than the average (only that of Germany is lower than average). Of the other states, Britain and Australia, by way of exception, show high expenditure on family. As to active labor market policy, it has grown on average and has become a more firm program. And it is higher than the average, except for Norway, in all Northern European and continental-type states, which are high-welfare and high-burden states. Of the other states, that of Spain is higher than the average. Also in the case of expenditure on unemployment policy, it tends to be bigger than the average in all Northern European and continental-type states, which are high-welfare and high-burden states, except for Norway (only that of Sweden is a little lower than the average). As in 2000, it still remains big in Belgium, Denmark and Finland. Of the other states, only Spain has expenditure on unemployment policy above the average. Spain has displayed a unique tendency of having big spending on active labor market and unemployment policy all through the observation period.

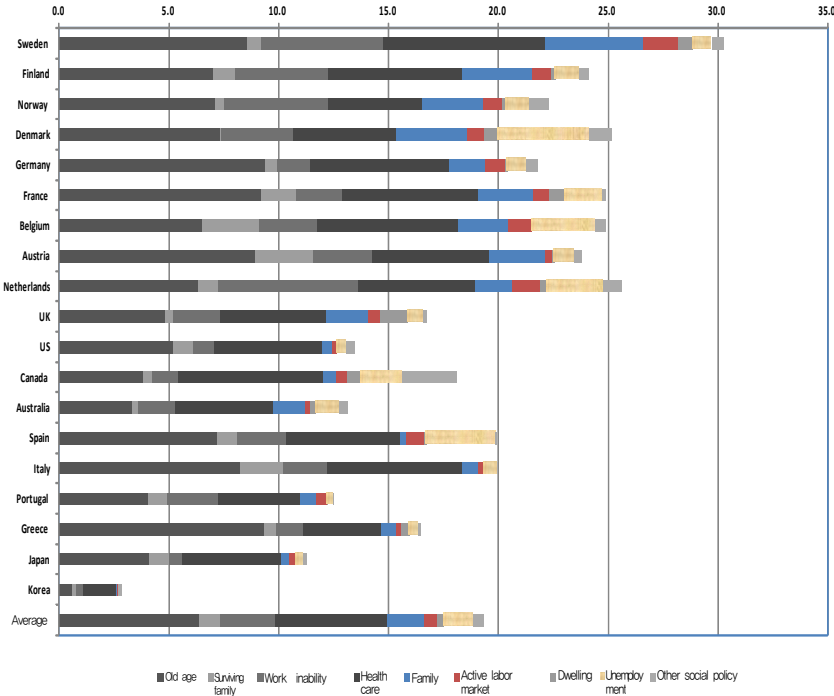
Summing up the observations made thus far suggests that the result of existing research that of the investment made for job creation for women and child care, spendings on education and retraining, and delay of retirement were helpful for economic growth is supported by the observation that expenditure on family and active labor market policy has maintained a big share in social security expenditure in high-welfare and high-burden states.

As for expenditure on unemployment policy, it can be said that if it is implemented together with flexibility of labor market and active labor market policy as part of golden triangle model of Denmark, it will have positive relationship with economic growth.

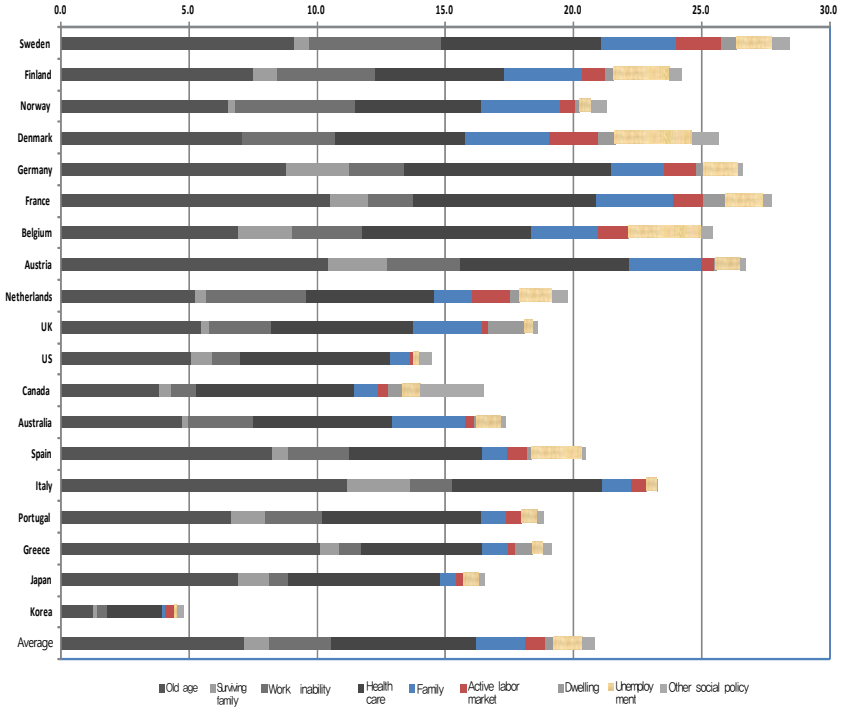
[Chart 6] Comparison of Composition of Social Security Expenditure - 1980



[Chart 7] Comparison of Composition of Social Security Expenditure - 1990

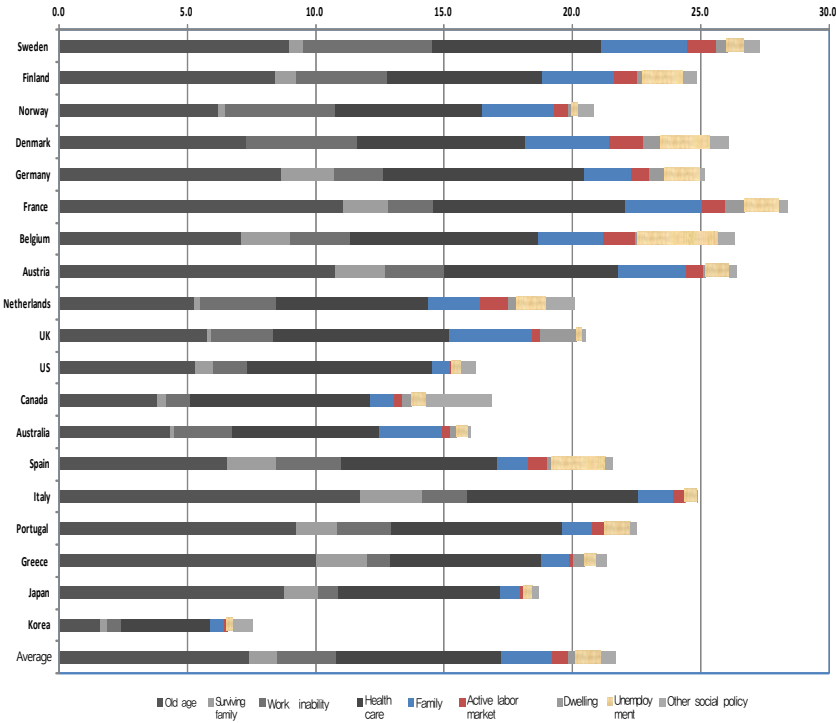


[Chart 8] Comparison of Composition of Social Security Expenditure - 2000





[Chart 9] Comparison of Composition of Social Security Expenditure - 2007



### **3. Tax composition of individual states and changes in the proportion of direct tax vs. indirect tax, progressive tax vs. regressive tax and corporate tax vs. non-corporate tax**

#### 1) Tax composition of individual states

The purpose here is to examine characteristics of the composition of taxes that can sustain high welfare and high burden based on the discussions described above. Particularly, characteristics of each state regarding each type of tax will be described in relation with high welfare and low welfare with the average of 19 states as a standard. In the course of earlier discussion, it was revealed that of high-welfare and high-burden states, the burden of social security contributions was comparatively higher in continental-type states, but with time, tax burden, along with social security burden, of Northern European-type states has risen above the average.

Overall, Northern European-type and continental-type states have been high-burden states with their tax burden ratio higher than the average all through observation period (1966-2008). Although Germany and the Netherlands are making efforts for tax reduction with their current ratio slightly lower than the average recently, they are still high-burden states. As to the other states, all are low-burden states, except that Britain and Canada were high-burden states for a while in the past, and Italy is a high-burden state lately.

As of 1965, high-welfare and high-burden type is Northern European-type with personal income tax higher than the average

in all the states belong to this type. Of continental-type states, personal income tax is higher than the average in Germany and the Netherlands. Of the states that belong to British-American type, it is higher than the average in Britain and the United States. As for corporate income tax, it is higher than the average in Finland and Sweden of Northern European-type states, and in Germany and the Netherlands of continental-type states. Of the states that belong to British-American type, it is higher and bigger than the average in the United States, Canada and Australia except Britain: accordingly, it seems to play more central role in this type than in Northern European and continental types. In the case of social security contributions, the share of it in tax revenue is higher than the average in all continental-type states, of which both the part paid by employees and the part paid by employers are big. In Northern European-type states, unlike continental-type states, the part imposed on employers are more developed. Of this type of states, only Sweden and Norway show it bigger than the average. In Denmark, employee's part and employer's part are both lower than the average, and unlike other Northern European-type states, the part contributed by employees is bigger. Of the states that belong to British-American type, in Britain the share of social security contributions in tax revenue remains around the average, and the part paid by employees is bigger than the average. In Southern European-type states, social security contributions are more developed in Spain, Portugal and Greece except for Italy, showing a tendency to correspond with that of continental type. In Japan, also, social security contributions, though much smaller than

the average, have become an important item for revenue, showing a tendency that this country also approaches continental type that is centered around social insurance. The share of property tax in tax revenue tends to be higher than the average in the states that belong to British-American type, while it does not play a significant role in comparison in Northern European-type and continental-type states, which are high-welfare and high-burden states, except in Denmark and Germany, respectively. In Southern European states, also, property tax does not play an essential part, the proportion to tax revenue being lower than the average except for Italy. In Japan, though it takes a significant proportion within the state, yet in international comparison, it is lower than the average. As for the proportion of consumption tax, the sum of general consumption tax and special consumption tax, it is bigger than the average in Northern European and Continental-type states, which are high-welfare and high-burden states, except in the Netherlands where it remains near the average. Of the other states, only Britain has a big proportion of consumption tax as an exception.

Comparison of the average proportions of personal income tax in 1965, 1980, 1995 and 2008 show that the average proportion of income tax has increased. It has become stable at around 10%. In the case of corporate income tax, the average slightly decreases in 1980 and 1995 and then increases in 2008. The average proportion of social security burden tends to rise in 1980 and 1995, but does not show significant difference in 1995 and 2008. In the case of property tax, the average ratio tends to decrease compared to 1965, but there is no big difference

between 1995 and 2008. The average proportion of consumption tax is stable at around 10% all through observation period; however, that of general consumption tax shows a growing trend and that of special consumption shows a diminishing trend.

The proportion of personal income tax tends to be bigger than the average in Northern European-type states during observation period except for Norway in 2008. Denmark, particularly, shows a unique tendency with the proportion of personal income tax having grown to slightly exceed 25% of GDP. Of continental-type states, that of France has always remained under the average, while that of Belgium has remained always bigger than the average and is stabilized around 13% in 1995 and 2008. In the case of Germany and Austria, the proportion either gets bigger or smaller near the average; however, that of Germany is judged to be on the decrease. In all the states that belong to British-American type, the proportion of personal income tax tends to be near or above the average, which is interpreted that though it is comparatively small compared to that of Northern European-type states, it still is an important tax. All Southern European-type states show the proportion of personal income tax lower than the average except that in Italy it is bigger than the average in 1995 and 2008. Both Japan and Korea show the proportion of personal income tax lower than the average.

With regard to corporate income tax, all the states that belong to British-American type display the proportion of it tends to be bigger than the average all through observation period, except that of the United States diminishes to be smaller than the average

in 2008, which shows that this is a central tax in these states. In Northern European-type states, though the tendency is not that strong as in the states that belong to British-American type, the proportion of it tends to be near the average, and as it approaches nearer to recent times, it tends to be nearer to the average in all its states; and in Norway its size is three times bigger than the average. In Denmark, also, corporate income tax, as an income tax together with personal income tax, is seen to be a comparatively important tax. This can be interpreted that the importance of corporate income tax has not diminished in Northern European-type states, either. Contrary to this, in continental-type states its importance has decreased compared to 1965, showing the tendency that it is lower than the average in most of them. However, though the importance is not as big as in the states that belong to British-American type or Northern European type, the proportion of it is not much lower than the average in 2008 except in Germany, showing that the importance of corporate income tax as a revenue source is not insignificant in continental-type states, either. Of Southern European states, corporate income tax is more important comparatively in Italy during observation period, but recently in 2008, the proportion is not much lower than the average in all of them, showing that importance of corporate income tax has not diminished in those states. In Japan and Korea, it has exceeded the average as recent as 2008; and considering the smaller-than-average size of other taxes, proportion of this tax is peculiarly big. The proportion of corporate income tax is on the increase in Korea.

As for social security contributions, the proportion of it is

bigger than the average all through observation period in continental-type states, showing that they are the states centered around social insurance. In Northern European-type states, also, it is bigger than or near the average except in Denmark. The tendency there, excluding the Netherlands, is that the part of social security contributions paid by employers is increasing as it nears recent times. In the states that belong to British-American type, the share has maintained its size up to recently, albeit small, except in Australia, where social security contributions have almost no role. This shows that social security contributions, maintaining the size, have a role in those states too. In Southern European states, the size of social security contributions has been increasing as it gets nearer to recent times, showing the tendency to exceed the average. This is the proof that these states have a similar structure to that of continental-type states, which are centered around social insurance. Japan shows ever-increasing proportion of social security contributions, which exceeds the average in 2009. Trend of it in Korea is also on the increase, the more so as it nears recent times; however, the level falls far short of the average.

Property tax is revealed to be a central tax item in the states that belong to British-American type with the proportion remaining above the average all through observation period. Next to these states, the proportion of property tax is comparatively bigger in continental-type and Southern European-type states than in Northern European-type states. However, it remains on the level not much smaller than the average in those states, showing it remains as a tax item with the role of its own. But in Japan

and Korea, it has been on the increase, the more so as it gets near recent times, remaining at the level above the average, which shows that property tax has uniquely big proportion in these two states.

In the case of consumption tax, the common trends in Northern European-type and continental-type states, which are high-welfare and high-burden states, are that the proportion of it remains higher than the average all through observation period and the proportion of general consumption tax grows and that of special consumption tax diminishes. Britain, unusually, shows the trend that the proportion of consumption tax has continued to be bigger than the average. Excluding Britain, all the British and American-type states show the proportion lower than the average with one exception that it is higher than the average in Canada in 1995. As it draws nearer to recent times, the importance of consumption tax grows bigger in Southern European states: it is higher than the average in Italy, Portugal and Greece in 1995 and 2008 and almost as big as the average in Spain. Comparison between Japan and Korea shows that though the proportion of consumption tax is smaller than the average in both countries, it is growing to be near the average in Korea while it is not greatly increasing in Japan. The proportion of consumption tax is much bigger than that of Japan in 1995 and 2008.

A summary of what has been described thus far is first, consumption tax shows biggest proportion in Northern European and continental-type states, which are high-welfare and high-burden states, in which the trend is general income tax is on the increase in comparison with special consumption tax.



And though both personal income tax and social security contributions play a significant role in both types of states, personal income tax is prevalent in Northern European-type states and social security contributions in continental-type states. In the case of Denmark, it is a unique Northern European-type state where the proportion of personal income tax is particularly big and the role of social security contributions is insignificant unlike the other Northern European states. As to corporate income tax, its proportion has not diminished and been stable near or little lower than the average recently, maintaining the importance level of its own in Northern European and continental-type states. Property tax also maintains its proportion; however, it is not an important tax item in Northern European-type states.

Second, personal income tax seems to be a significant source of tax revenue in Britain and American-type states, which are low-welfare and low-burden states, with the proportion being near the average or bigger than the average, though smaller than that of Northern European-type states. In terms of the proportion compared to other tax items, consumption tax and social security contributions are big (excluding Australia) but smaller than that of Northern European and continental type and smaller than the average of the 19 state. But the states that belong to British-American type show the proportion of property tax and corporate tax particularly bigger than the average compared to Northern European and continental-type states (excluding the United States in 2008).

Third, Southern European-type states are following continental-type states in their tendency that social security

contributions are growing bigger than the average. However, considering that the proportion of consumption tax is also growing, these states are following both Northern European and continental type. Besides, in that corporate tax and property tax play comparatively significant role there, they also resemble British-American type. Personal income tax does not play an important role in these states.

Last, Korea and Japan are following continental-type states in the tendency that social security contributions are growing. The size of social security contributions of Japan has recently approached the average, but that of Korea is still much lower than the average. The proportion of consumption tax in Korea is increasing toward the average, and has become bigger than that of Japan. Korea and Japan, commonly, have the characteristics of British-American type in that importance of corporate income tax and property tax tends to be bigger than the average, which has become more conspicuous recently, while the proportions of all the other taxes are lower than the average. In both Korea and Japan, the proportion of personal income tax is smaller than the average, not playing a significant role.

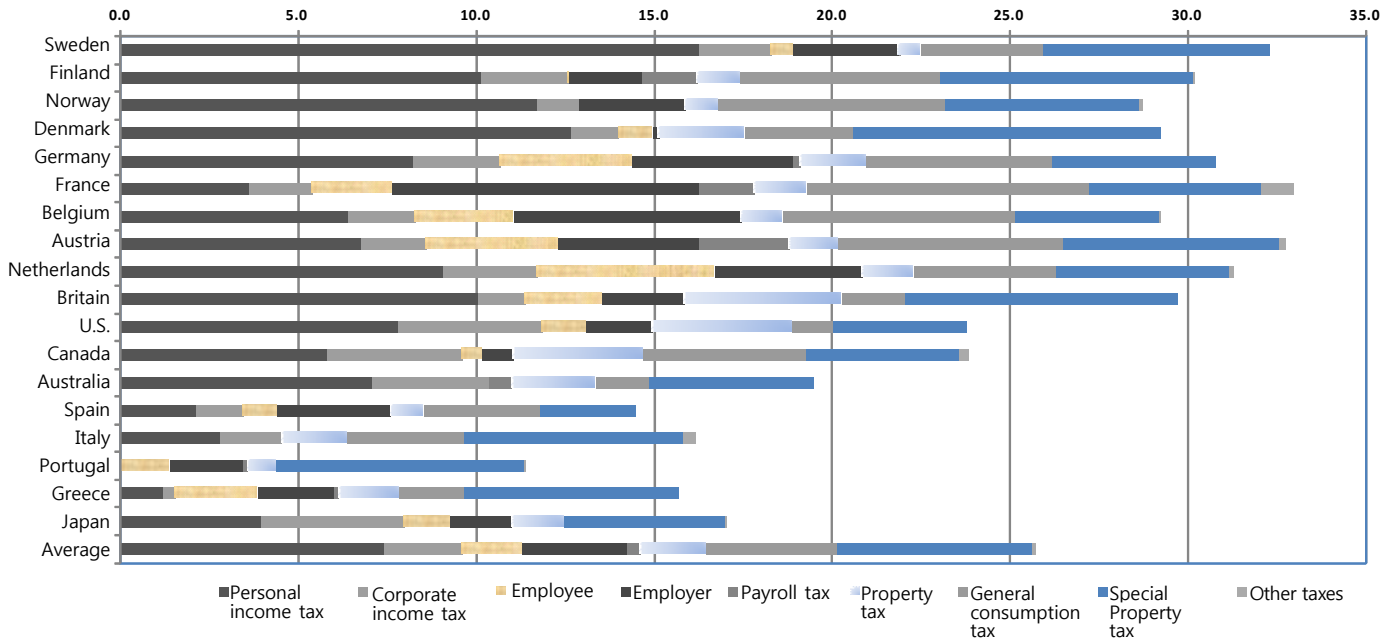
From what have been described thus far, lessons for Korea in expanding the sources of revenue that will correspond to increasing welfare demands in our future can be outlined as follows. Above all, there are at least three structural directions in high-burden methods that sustain high-welfare. At first, as a common direction, North European type and continental type use all the possible sources of revenue to bear high welfare, and consumption tax plays an important role in both types.

However, Northern European type mainly uses personal income tax, while using social security contributions on a high level near the average also; on the other hand, continental type mainly uses social security contributions, also using personal income tax on a level near the average. Other than this general tendency of Northern European type and continental type, Denmark, a Nordic state, shows a peculiar tax structure in which the proportion of personal income tax is high, while using social security contributions insignificantly. As to corporate income tax and property tax, they do not play an important role in Northern European and continental-type states; still, they play a role that is not negligible. Therefore, though it seems Korea, being centered around social insurance in structural perspective, should sharply elevate the share of social security contributions as in continental-type states, but considering the fact, mentioned earlier in the expenditure section, that expenditure on family and active labor market policy contributes to economic growth, should lessen the role of cost-increasing social security contributions to a comparatively smaller level than that of continental type and raise consumption tax and personal income tax as in Northern European-type states.

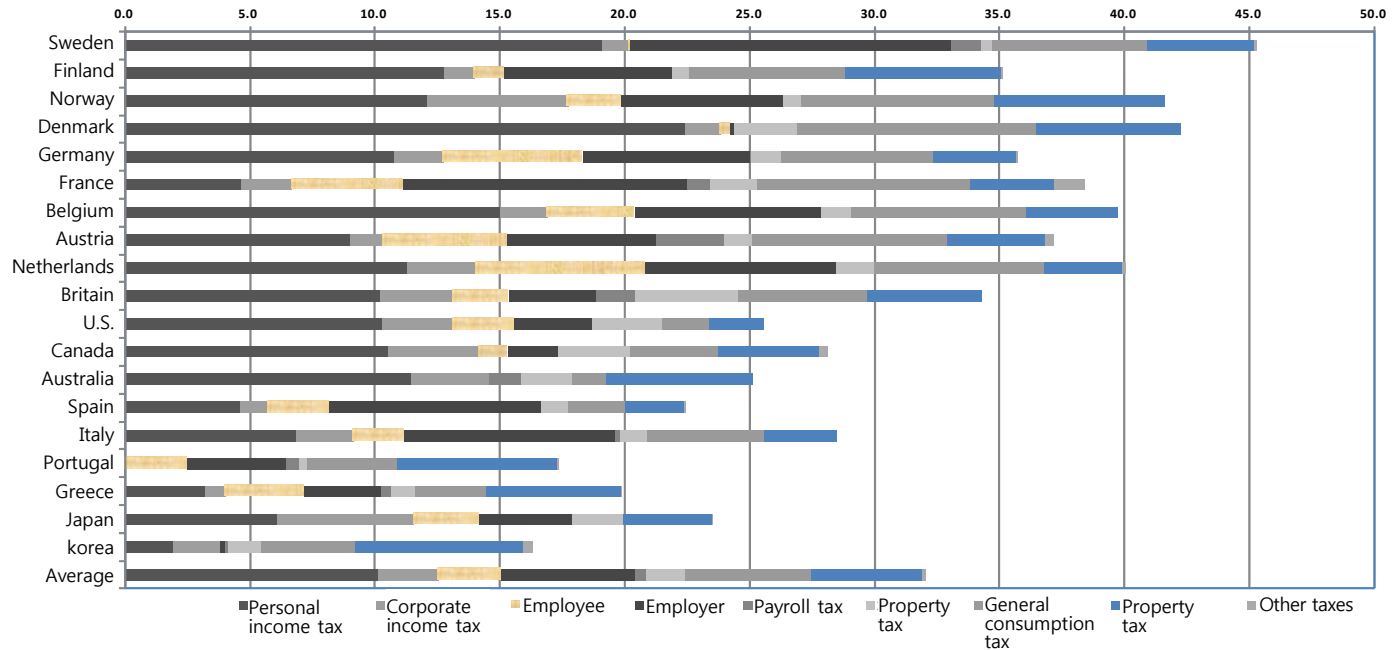


A Study on the Relation Between Welfare Level and Tax Structure

[Chart 10] Comparison of Composition of Tax Revenue of Major OECD States - 1965



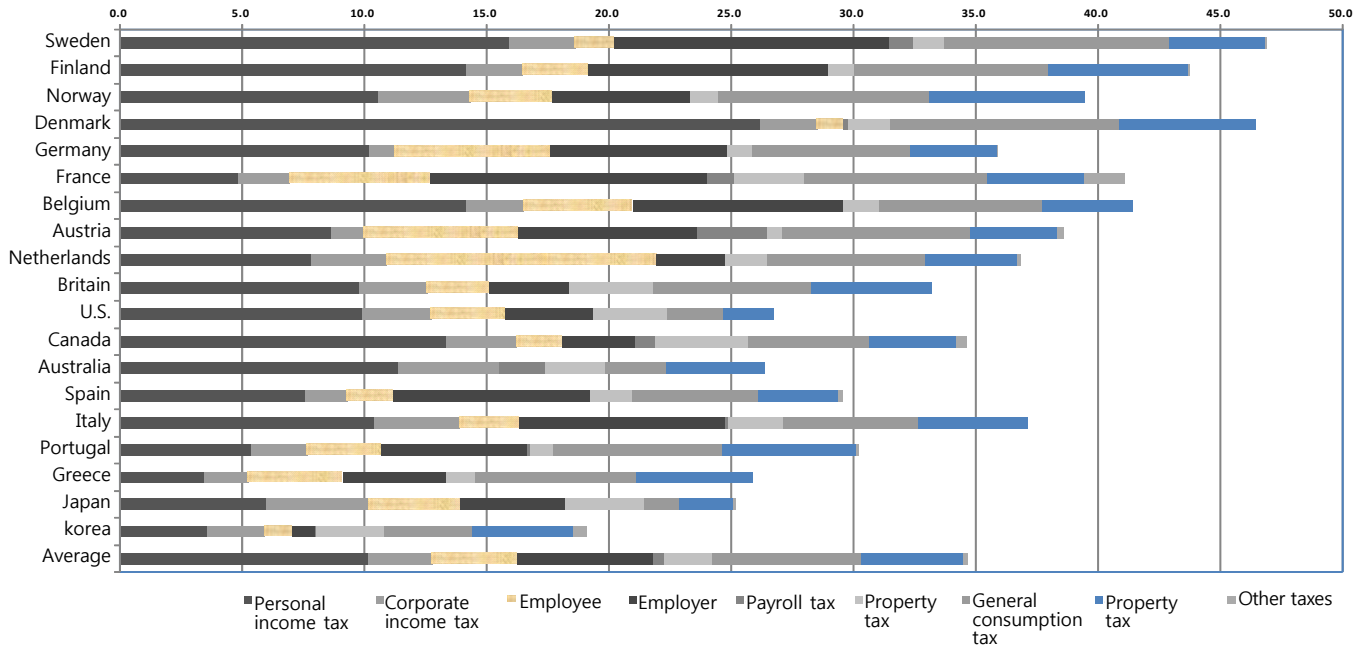
[Chart 11] Comparison of Composition of Tax Revenue of Major OECD States - 1980



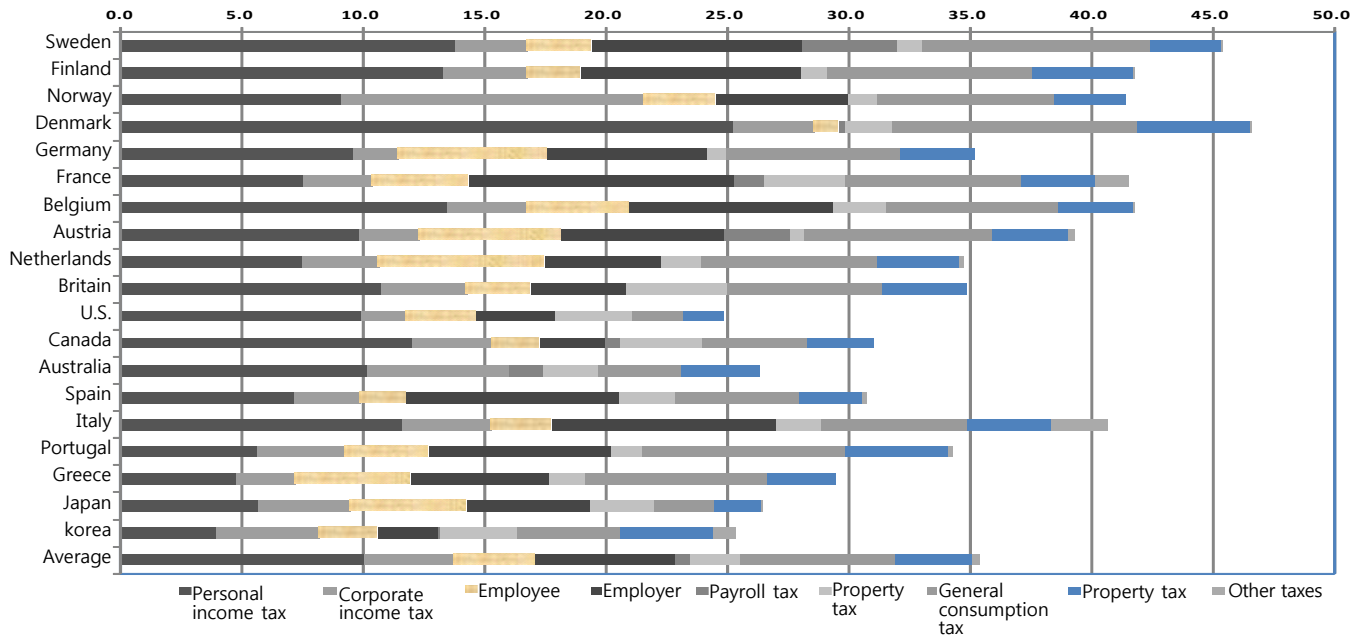


A Study on the Relation Between Welfare Level and Tax Structure

[Chart 12] Comparison of Composition of Tax Revenue of Major OECD States - 1995



[Chart 13] Comparison of Composition of Tax Revenue of Major OECD States - 2008



## 2) Direct tax and indirect tax

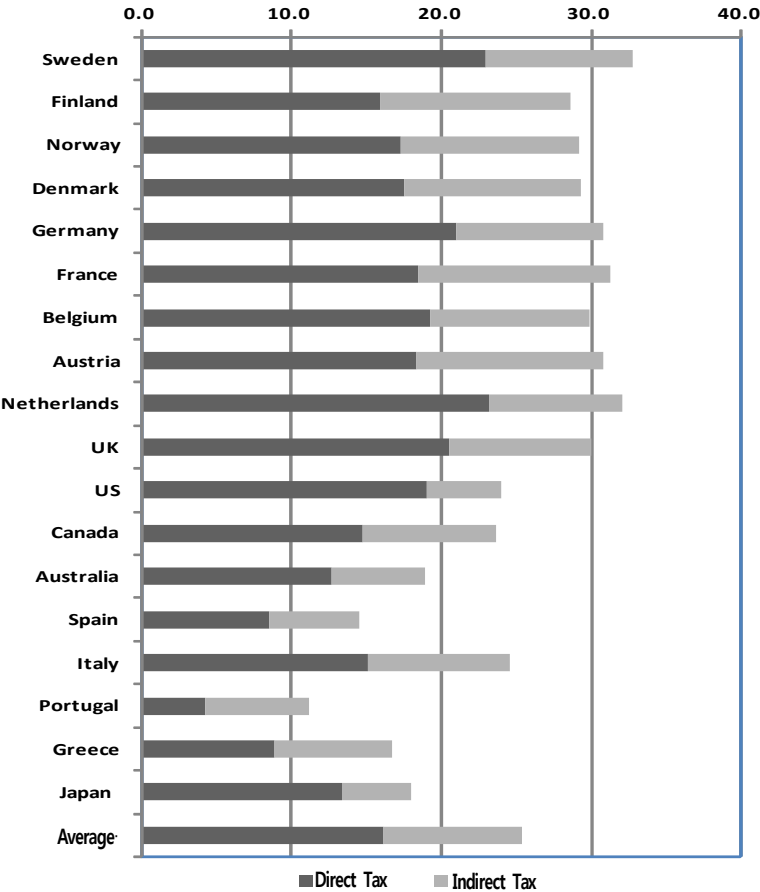
Generally, there has been a traditional ideal that welfare states should prefer direct taxes and avoid indirect taxes. Contrary to this, there is an argument that increasing indirect taxes as well as direct taxes is crucial to expanding source of taxation (Kato, 2003). Under the context, the purpose is to investigate whether direct taxes, along with indirect taxes, have indeed increased to bear high burden.

In the category of direct tax, personal income tax, corporate income tax, property tax and social security contributions are included, and in the category of indirect tax, general consumption tax and special consumption tax are included.

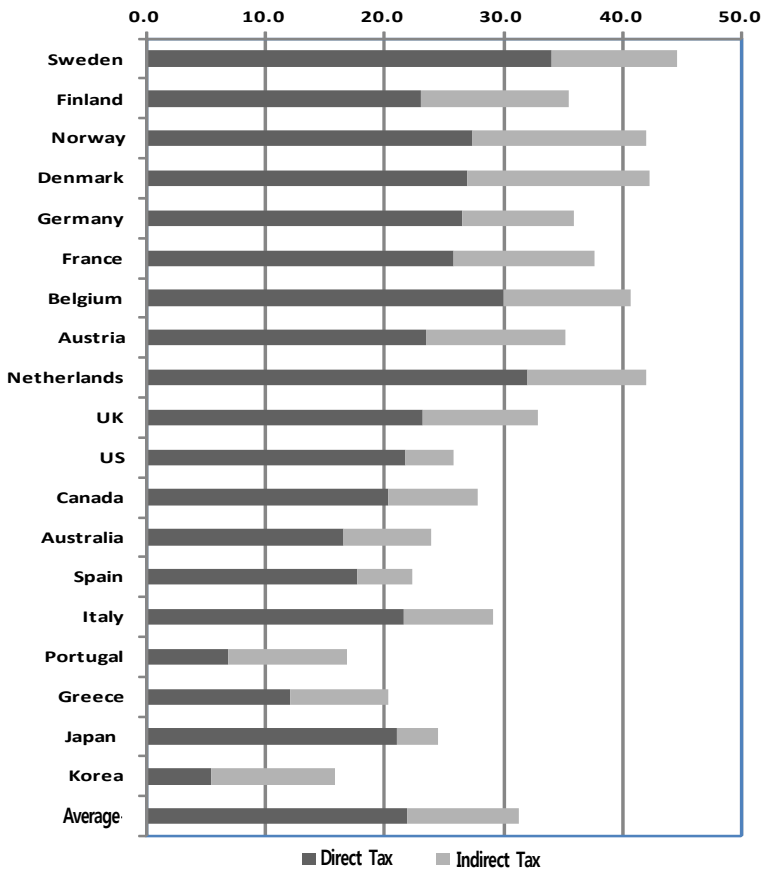
According to time-series data, the ratio of indirect taxes is stable on average, remaining at around 10%, while that of direct taxes is increasing. This is interpreted that to bear high burden, increase in indirect taxes alone is not sufficient, but increase in direct taxes should also be accompanied. Increasing indirect taxes is interpreted to mean the tendency that while the proportion of general consumption taxes remains at around 10%, the share of general consumption taxes increase and that of special consumption taxes decrease in the composition. This is because general consumption taxes, unlike special consumption taxes, are more advantageous for securing financial resources. Therefore, the earlier argument is regarded valid.



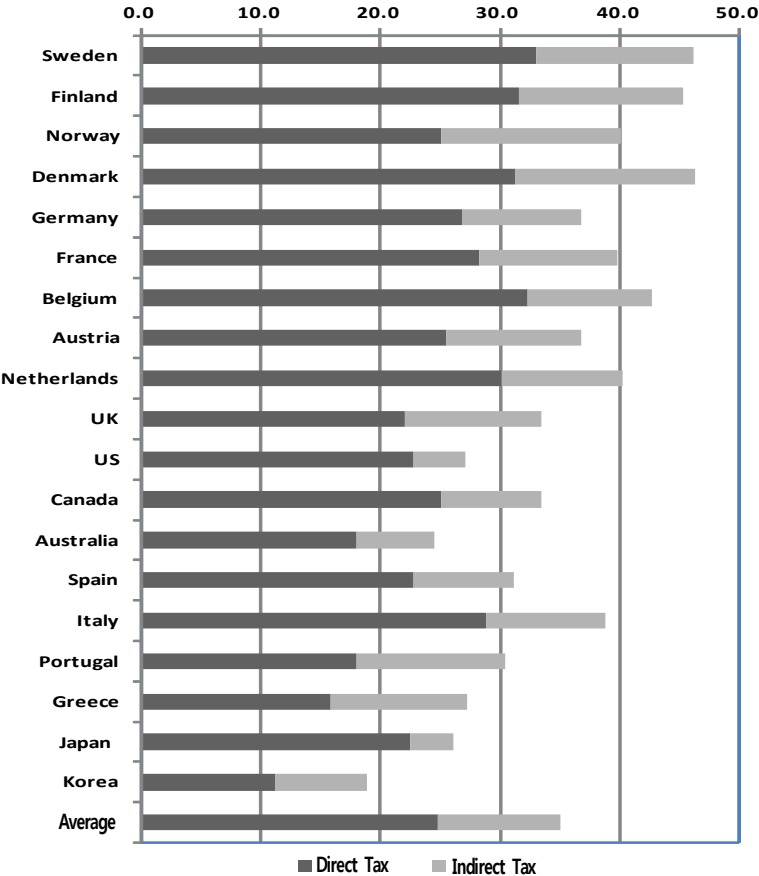
[Chart 14] Comparison of Proportion Between Direct Tax and Indirect Tax of Major OECD States - 1965



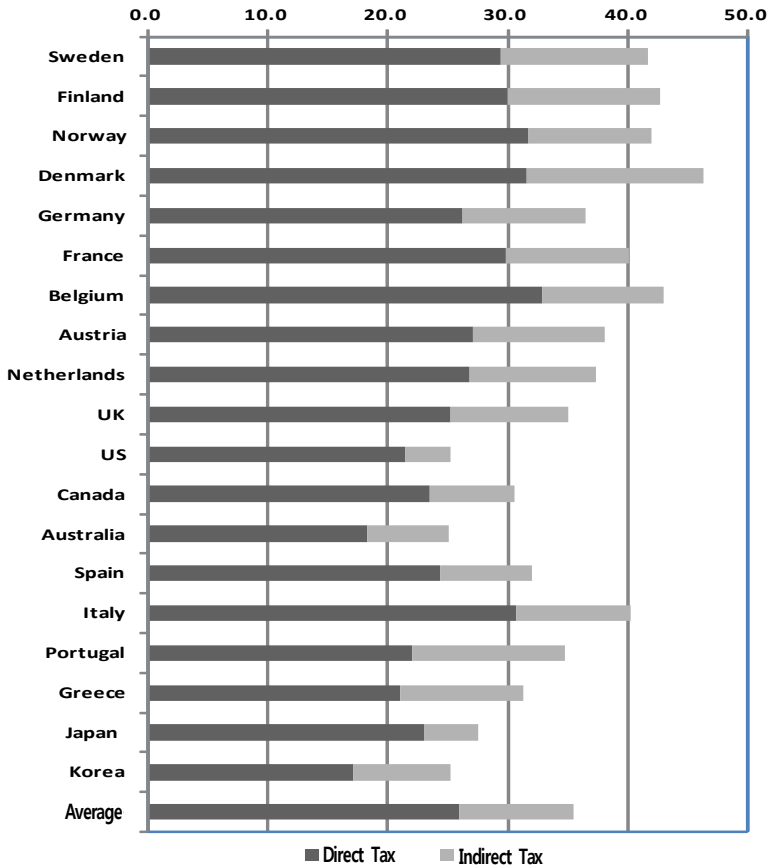
[Chart 15] Comparison of Proportion Between Direct Tax and Indirect Tax of Major OECD States - 1980



[Chart 16] Comparison of Proportion Between Direct Tax and Indirect Tax of Major OECD States - 1995



[Chart 17] Comparison of Proportion Between Direct Tax and Indirect Tax of Major OECD States - 2008



### 3) Progressive tax and regressive tax

There has been a traditional ideal that progressive taxes levied on income should be used as financial resources for social welfare. Contrary to this ideal, it is argued that regressive taxes, together with progressive taxes, should also be used to meet increasing demand for financial resources (Kato, 2003). So, this argument is being examined here.

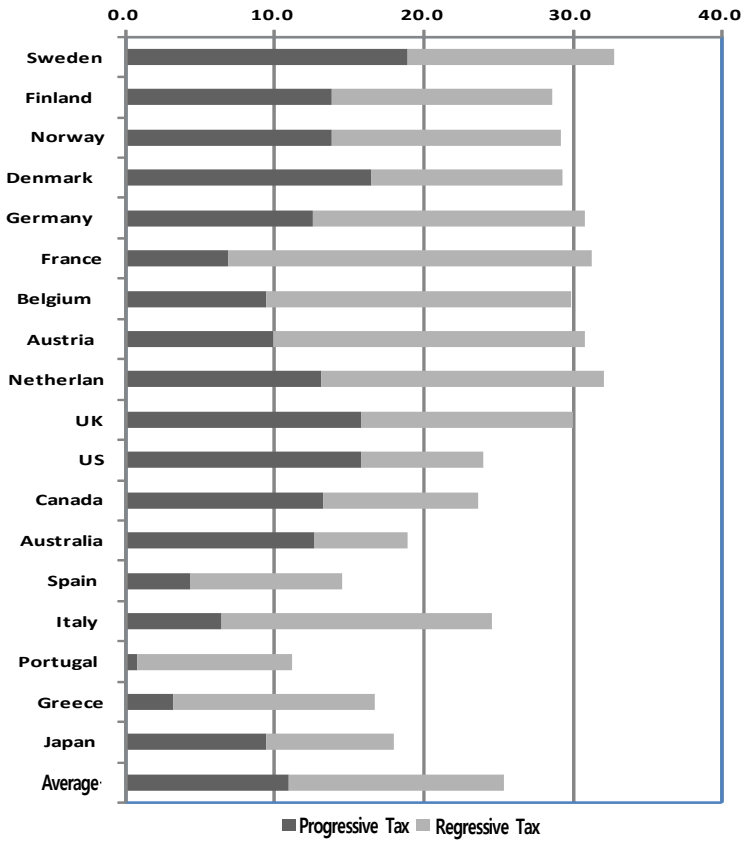
Personal income tax, corporate income tax and property tax are considered as progressive tax; and general consumption tax, special consumption tax and social security contributions, which are imposed at a fixed rate, are considered as regressive tax.<sup>1)</sup>

Looking at changes on average, the progressive taxes increase and regressive taxes also tend to increase. Therefore, it can be said the above written assumption is valid. The size of progressive taxes and that of regressive taxes tend to be stable at the averages of 1995 and 2008. Notable state is Denmark, of which the size of progressive taxes has unusually increased to be stable near 30%.

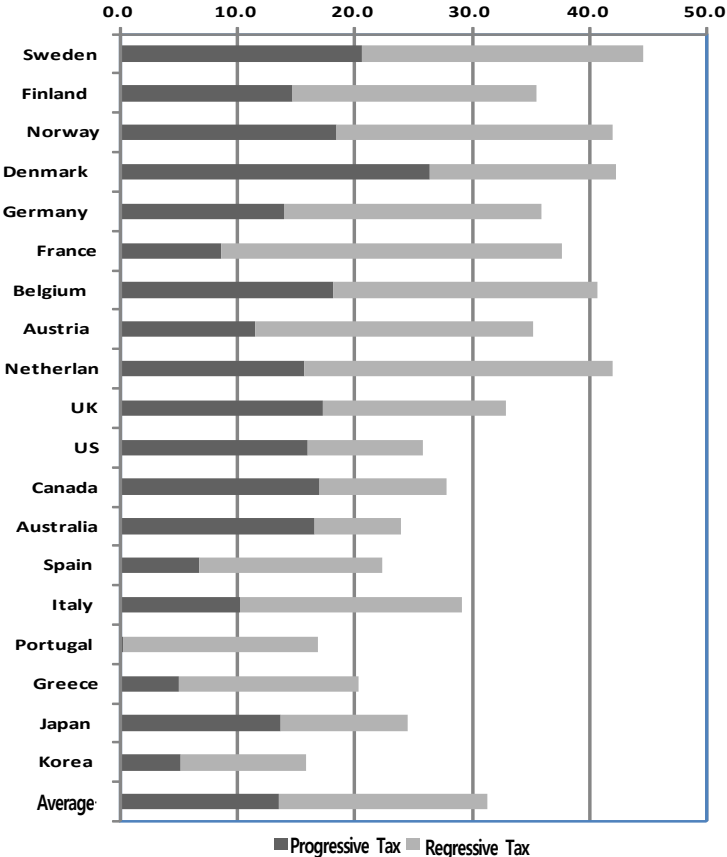
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1) Classification by Yoon Hong-shik (2011) is applied. However, with regard to whether a proportional taxes levied at a fixed rate is always regressive needs more detailed consideration. Property tax is classified as a progressive tax because, in most cases, different tax rate is levied in accordance with the size of property.

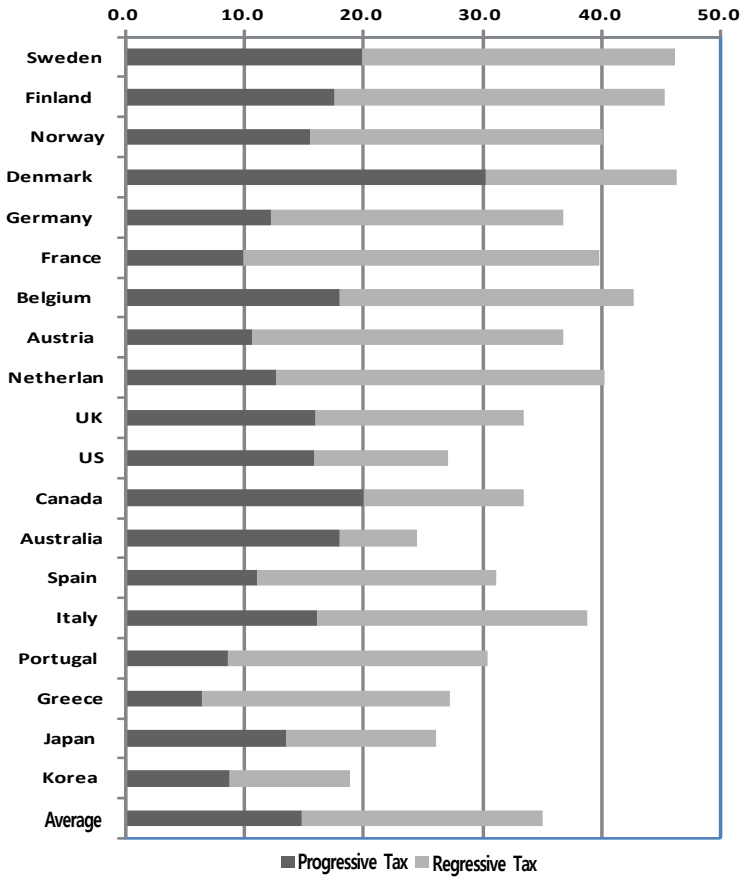
[Chart 18] Comparison of Proportion Between Progressive Tax and Regressive Tax of Major OECD States - 1965



[Chart 19] Comparison of Proportion Between Progressive Tax and Regressive Tax of Major OECD States - 1980

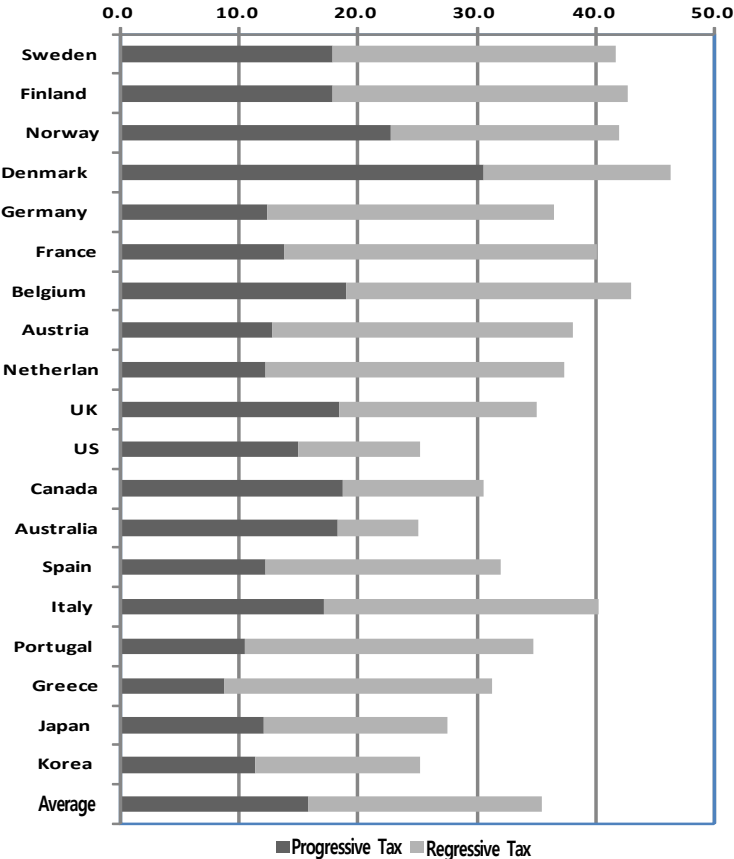


[Chart 20] Comparison of Proportion Between Progressive Tax and Regressive Tax of Major OECD States - 1995





[Chart 21] Comparison of Proportion Between Progressive Tax and Regressive Tax of Major OECD States - 2008



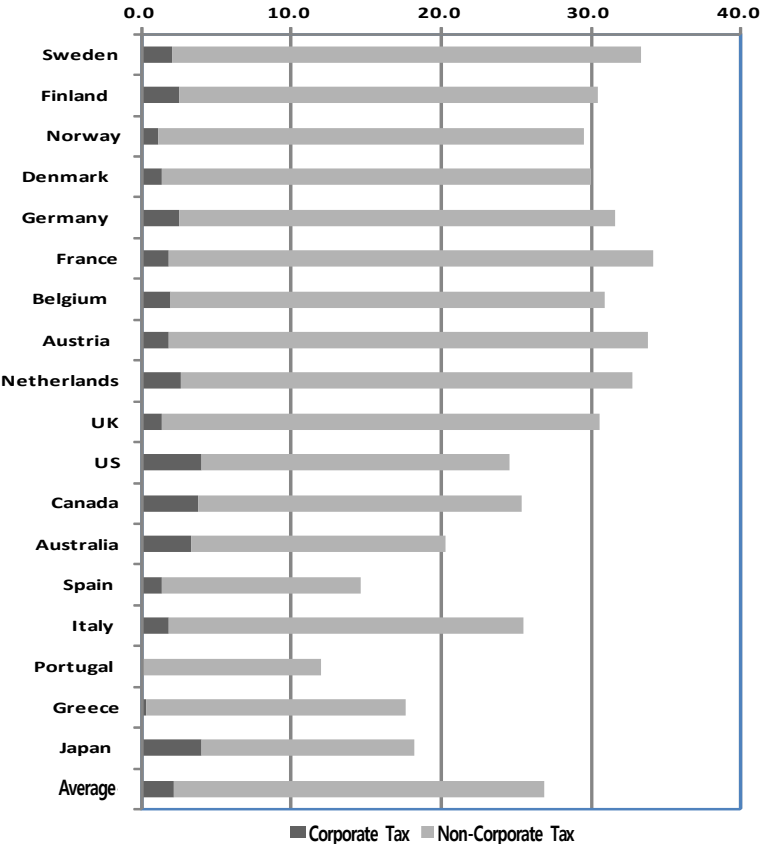
#### 4) Corporate tax and non-corporate tax in relation to liquidity of capital

General argument is that globalization causes a rise in the liquidity of capital; therefore, if corporate tax is raised, capital outflow will increase, and this, in turn, will have negative effects on economy and tax revenue. Here, the purpose is to look into the validity of the argument based on time-series data.

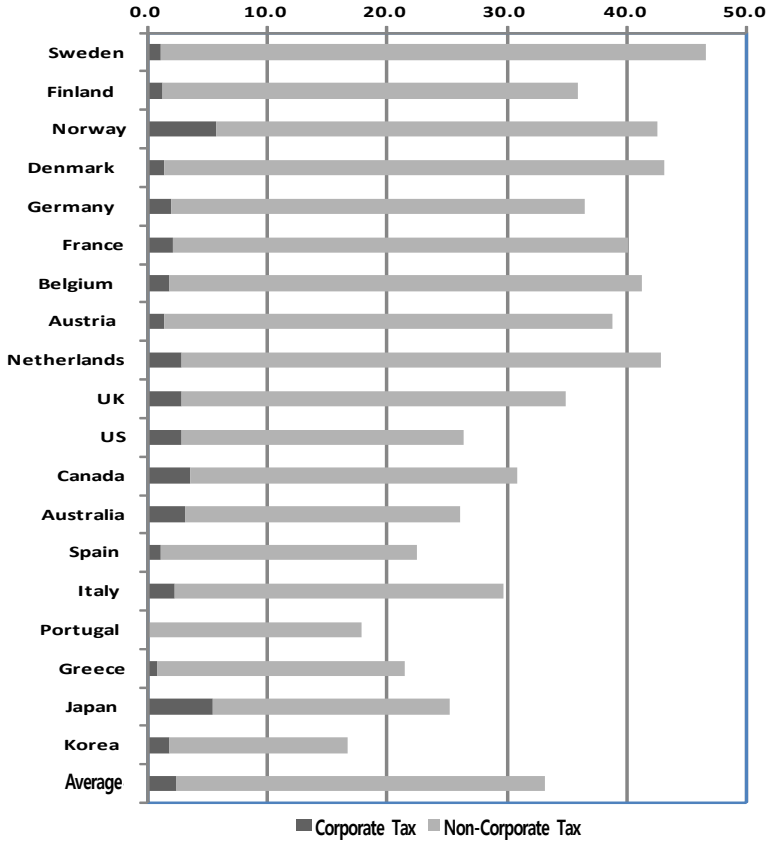
Corporate tax is considered as a liquid tax, and other taxes as illiquid taxes.

Looking at the changes on average, corporate tax shows stable tendency until 2008 whence it starts to be on the rise. Overall tendency in 2008 is corporate tax remains on the same level or increase except in the United States and Germany. From this, a conclusion can be reached that no tendency to reduce corporate tax as a countermeasure against capital outflow is not observed, and corporate tax is slightly on the rise recently. This is the result that can be interpreted in the same context that importance of corporate tax in the composition of tax revenue of individual states has not decreased.

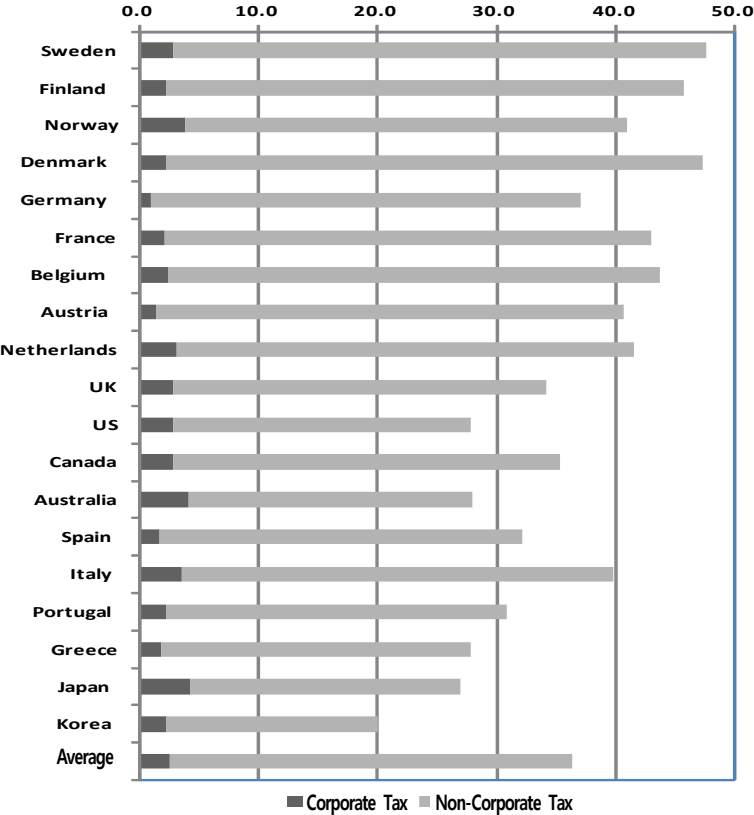
[Chart 22] Comparison of Proportion Between Corporate Tax and Non-Corporate Tax of Major OECD States - 1965



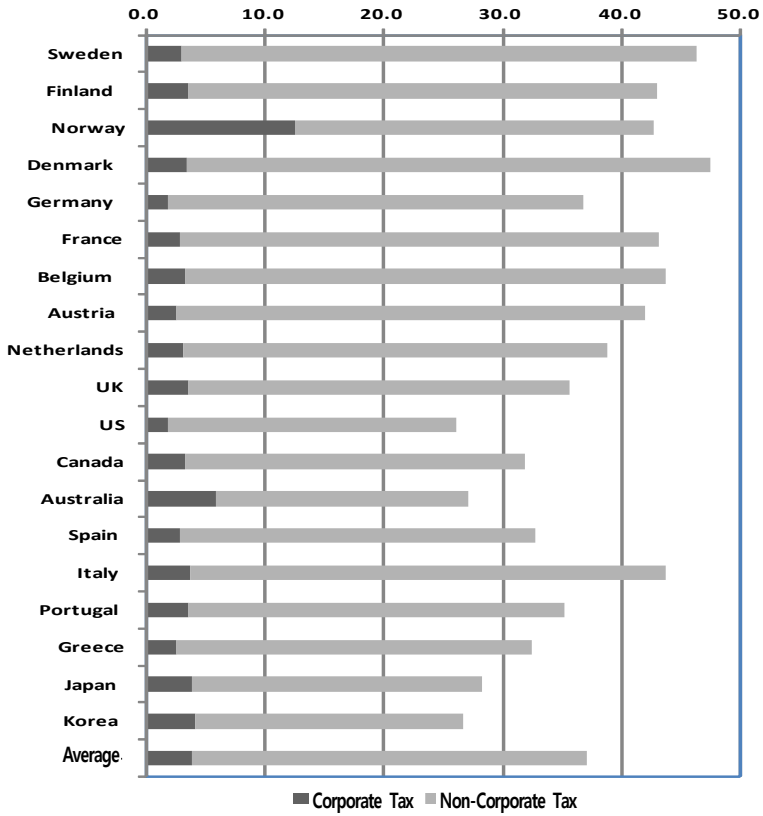
[Chart 23] Comparison of Proportion Between Corporate Tax and Non-Corporate Tax of Major OECD States - 1980



[Chart 24] Comparison of Proportion Between Corporate Tax and Non-Corporate Tax of Major OECD States : 1995



[Chart 25] Comparison of the Proportion Between Corporate Tax and Non-Corporate Tax of Major OECD States - 2008



#### 4. Types of tax structure that correspond to high burden and high welfare: Bonoli's typology (1997)

Bonoli's typology watches the share of social security contributions in social expenditure on the horizontal axis, and the share of social expenditure in GDP on the axis of ordinates. If divided by the related average, high-welfare states are positioned above the average of the axis of ordinates and low-welfare states under it. In the same way, on the right side of the horizontal axis are positioned those states which are highly dependent on social security contributions for securing fiscal resources, in other words, Bismarckian states that are centered around social insurance; and on the left side, those states which are dependent on non-social security contributions, in other words, on taxes.

In 1980, Denmark, Sweden and Finland, which are high-welfare states and dependent on taxes, are positioned on the top left; Australia, Canada, Britain and the United States, which are low-welfare states dependent on taxes, are on the bottom left; Portugal, Japan, Greece and Spain, which are low-welfare states mainly dependent on social security contributions, are on the bottom right; and Italy, France, Germany, Belgium and the Netherlands, which are high-welfare states mainly dependent on social security contributions, are positioned on the top right. This is the typology of financing structure focused on social contributions and taxes, which corresponds with reality as well as with the existing typology that is focused on type of welfare regimes and welfare level. Only exception is Norway, which is out of usual expectation.

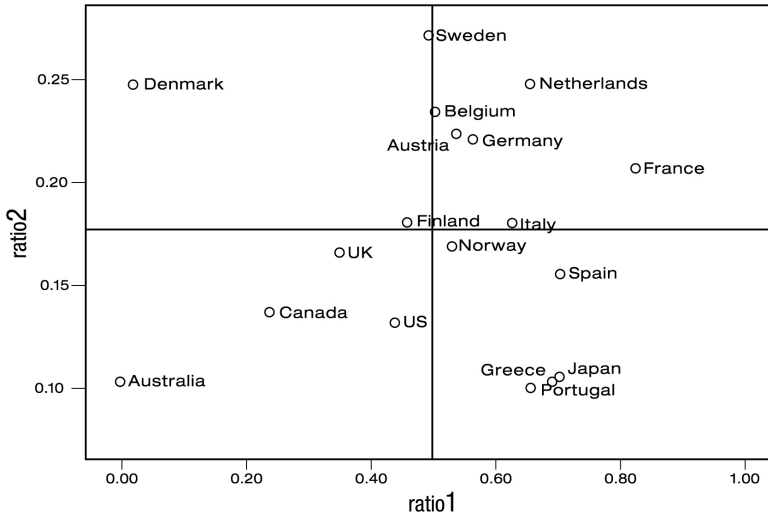
In 1990, this topology corresponds to the existing classification; and Norway, unlike in 1980, shows expected result. Only Greece has moved in the direction of Anglo-American type, unexpectedly. Looking at 2000 and 2007, it can also be said that there exist such financing structures that correspond to high welfare-high burden and low welfare-low burden in the typology of welfare states, except for temporary and partial changes resulting from short-term fluctuations.

This suggests when we consider adopting a financing structure to cope with increasing welfare demands, we cannot consider it excluding these structural options.

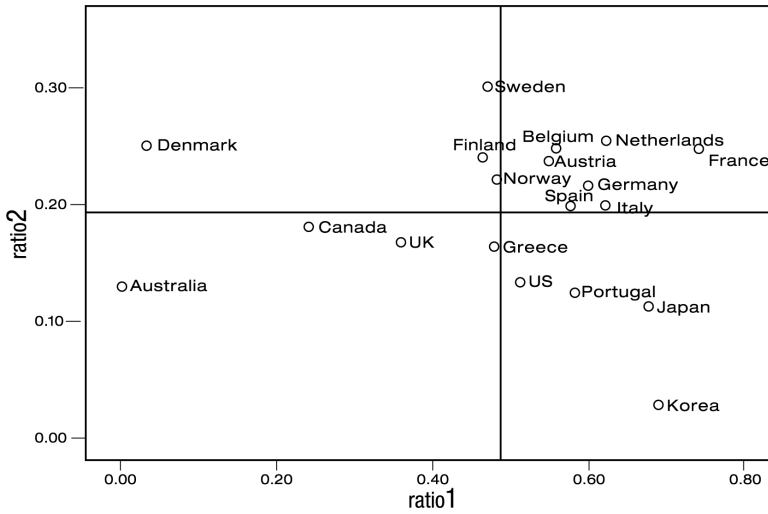
(On the following charts 26-29, 'ratio1' is 'social contribution as ratio of social expenditure' and 'ratio2' is 'social expenditure as ratio of GDP')



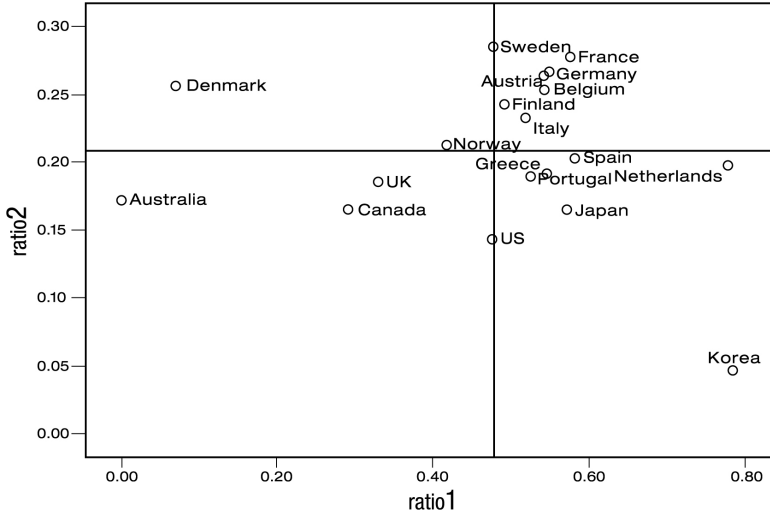
[Chart 26] Classification of States According to Bonoli's classification - 1980



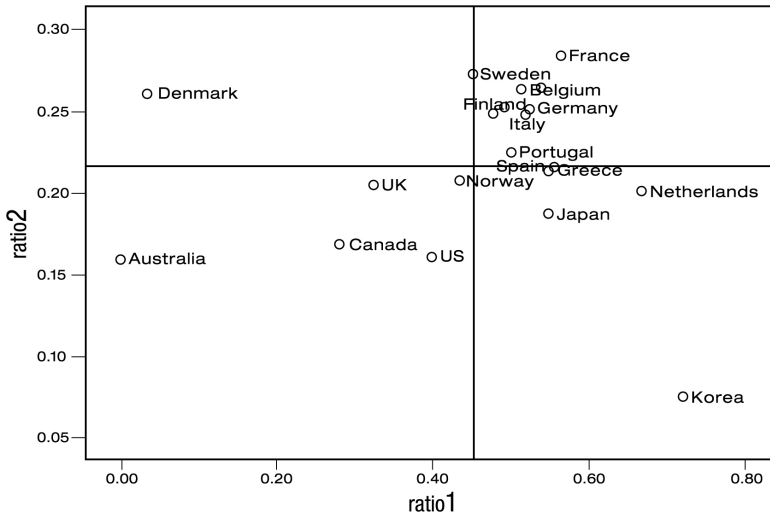
[Chart 27] Classification of States According to Bonoli's classification - 1990



[Chart 28] Classification of States According to Bonoli's Classification - 2000



[Chart 29] Classification of States According to Bonoli's classification - 2007





Chapter

05

# **Conclusions and Policy Implications**





## Chapter 5

# Conclusions and Policy Implications

Key conclusions are as follows:

First, high welfare accompanies high burden. Both Northern European and continental-type states, which are high-welfare states, show the high-burden tendency as both tax burden ratio and ratio of social security burden are above the average. Particularly, since 1980, unlike in 1965, ratio of social security burden is also at high level, above the average, though that of Northern European type is a little lower than that of continental type. Instead, in terms of tax burden ratio, the other part of national burden ratio, continental type is smaller on average. Of universalistic states, Denmark is the state that shows totally different characteristics. It is a high-welfare state that shows little dependence on social security contributions but extremely high dependence on taxes. On the other hand, in the states that belong to British-American type, both national burden ratio and ratio of social security burden are at low level, under the average, except that Britain showed unusually high national burden ratio in the past. Usually, in this type of states both tax burden and social security burden exist, but Australia shows a unique case which is centered on taxes with almost no social security burden.

In the case of those states that belong to Southern European type, which is classified to be similar to continental type, they show the tendency to transform into high-welfare states with

the increase in social security expenditure. This trend is more certain as it gets nearer to recent times and correspondingly to this, the ratio of social security burden is also approaching high level. On the other hand, in terms of national burden ratio, which includes tax burden ratio, Italy is at high level while Spain is near the average in 2007. They are those Southern European states that are having trouble these days. Comparison between their welfare level and burden level, without regard to institutional inefficiencies in those states, can explain the reason why they are having financial crisis since 2008. They pursued to becoming high-welfare states without building up the structure that can bear high burden as in advanced welfare states.

Second, there exist such tax structures that can sustain high burden. It can be said that there exist such financing structures that correspond to high welfare and high burden, and low welfare and low burden in accordance with the typology of welfare states, except for changes resulting from short-term fluctuations. This means when we consider a financing structure that will be able to cope with increasing welfare demands in Korea, we cannot consider it excluding these structural options. The results of researches on the composition of taxes related to this finding are as follows:

<Direct tax/Indirect tax> The argument that increasing indirect taxes, as well as direct taxes, is crucial to expanding sources of taxation is valid based on time-series data.

<Progressive tax/Regressive tax> The argument that increasing regressive taxes, as well as progressive taxes, is crucial to affording increasing demand for financial resources is valid based on

time-series data.

<Corporate tax/Non-corporate tax> Tendency to reduce corporate tax, as a countermeasure taken for fear of capital outflow that results from globalization is not observed; rather, corporate tax is slightly on a rising trend. This is the result that should be interpreted in the context that importance of corporate tax in the composition of tax revenue of individual states did not diminish.

Finally, policy implications for Korea are as follows:

First, if it is assumed, as the result of this research, there exist such financing structures that correspond to high welfare and high burden, and low welfare and low burden in accordance with welfare state typology except for temporary and partial changes due to short term fluctuations, we cannot exclude these structural options when we consider choosing a financing structure to cope with increasing welfare demands in Korea. There are at least three structural directions in bearing high burden to afford high welfare. Northern European and continental-type states commonly use all available sources of revenue, and consumption tax plays an important role in both types. However, the first type, Northern European type, mainly uses personal income tax, while also using social security contributions on a high level near the average. On the other hand, the second type, continental type, mainly uses social security contributions, while using personal income tax on the level near the average. Besides these general tendencies of Northern European type and continental type, the third type is Denmark, which uses personal income tax on a extremely high level, while using social security

contributions marginally. In Northern European and continental type-states, corporate tax and property tax do not play an essential role, but have a role that is not negligible.

Second, though it seems that Korea, being centered around social insurance on structural perspective, should sharply elevate the proportion of social security contributions as in continental-type states. But, considering the fact, mentioned earlier in the expenditure section, that expenditure on family and active labor market policies contributes to economic growth, Korea should lessen the role of cost-increasing social security contributions to a comparatively smaller level than that of continental type and raise the proportion of consumption tax and personal income tax to be used for spendings that will help attain economic growth as in Northern European-type states.



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# Appendix

## Comparison Table of 19 OECD Member States

〈Sub-table 1〉 Changes in Tax Burden- · Social Security  
 Contribution- · National Burden Ratio · Social Security  
 Expenditure of 19 Major OECD states (% of GDP)

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Sweden	Tax burden ratio	29.3	32.3	33.3	33.1	35.6	38.0	34.4	37.9	35.8	34.8	18.8
	Ratio of social security contributions	4.0	5.7	8.1	13.4	11.8	14.2	13.1	13.6	13.1	11.5	187.5
	National burden ratio	33.4	37.9	41.3	46.5	47.4	52.2	47.5	51.4	48.9	46.3	38.6
	Social security expenditure	-	-	-	27.2	29.5	30.2	32.0	28.4	29.1	-	7.0
Finland	Tax burden ratio	28.3	28.7	29.1	27.4	31.1	32.5	31.6	35.3	31.9	31.0	9.5
	Ratio of social security contributions	2.1	2.8	7.5	8.4	8.7	11.2	14.1	11.9	12.0	12.1	476.2
	National burden ratio	30.4	31.6	36.6	35.8	39.8	43.7	45.7	47.2	43.9	43.1	41.8
	Social security expenditure	-	-	-	18.1	22.4	24.1	30.7	24.2	26.0	-	43.6
Norway	Tax burden ratio	26.1	29.0	29.5	33.5	33.8	30.2	31.3	33.7	34.6	33.7	29.1
	Ratio of social security contributions	3.5	5.5	9.7	9.0	8.9	10.8	9.6	8.9	8.9	8.9	154.3
	National burden ratio	29.6	34.5	39.2	42.4	42.6	41.0	40.9	42.6	43.5	42.6	43.9
	Social security expenditure	-	-	-	16.9	17.8	22.3	23.3	21.3	21.7	-	28.4
Denmark	Tax burden ratio	28.9	37.1	38.2	42.5	44.8	45.6	47.7	47.6	49.7	47.2	63.3
	Ratio of social security contributions	1.1	1.2	0.2	0.6	1.4	0.9	1.1	1.8	1.1	1.0	-9.1
	National burden ratio	30.0	38.4	38.4	43.0	46.1	46.5	48.8	49.4	50.8	48.2	60.7
	Social security expenditure	-	-	-	24.8	23.2	25.1	28.9	25.7	27.2	-	9.7
Germany	Tax burden ratio	23.1	22.0	22.7	23.9	22.9	21.8	22.7	22.7	20.9	23.1	0.0
	Ratio of social security contributions	8.5	9.6	11.7	12.5	13.2	13.0	14.5	14.5	13.9	13.9	63.5
	National burden ratio	31.6	31.5	34.3	36.4	36.1	34.8	37.2	37.2	34.8	37.0	17.1
	Social security expenditure	-	-	-	22.1	22.5	21.7	26.8	26.6	27.2	-	23.1
France	Tax burden ratio	22.4	21.7	21.0	23.0	24.3	23.5	24.5	28.4	27.7	27.1	21.0
	Ratio of social security contributions	11.6	12.4	14.4	17.1	18.5	18.5	18.4	16.0	16.2	16.1	38.8
	National burden ratio	34.1	34.1	35.4	40.1	42.8	42.0	42.9	44.4	43.9	43.2	26.7
	Social security expenditure	-	-	-	20.8	26.0	24.9	28.5	27.7	29.0	-	39.4
Belgium	Tax burden ratio	21.3	24.2	27.6	29.4	30.3	28.0	29.2	30.9	30.9	30.3	42.3
	Ratio of social security contributions	9.8	9.7	11.9	11.9	14.0	13.9	14.3	13.9	13.6	13.9	41.8
	National burden ratio	31.1	33.9	39.5	41.3	44.3	42.0	43.5	44.7	44.6	44.2	42.1

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	Social security expenditure	-	-	-	23.5	26.0	24.9	26.3	25.4	26.4	-	12.3
	Tax burden ratio	25.4	25.2	26.5	26.8	27.8	26.6	26.5	28.5	27.8	28.4	11.8
Austria	Ratio of social security contributions	8.4	8.6	10.1	12.0	13.0	13.0	14.9	14.8	14.6	14.3	70.2
	National burden ratio	33.9	33.8	36.6	38.9	40.8	39.7	41.4	43.2	42.4	42.7	26.0 Tax burden ratio
	Social security expenditure	-	-	-	22.4	23.7	23.8	26.6	26.7	27.4	-	22.3
	Tax burden ratio	22.7	23.1	25.1	26.6	23.7	26.9	24.1	24.2	25.4	24.6	8.4
Netherlands	Ratio of social security contributions	10.1	12.5	15.6	16.3	18.8	16.0	17.4	15.4	13.1	14.5	43.6
	National burden ratio	32.8	35.6	40.7	42.9	42.4	42.9	41.5	39.6	38.4	39.1	19.2
	Social security expenditure	-	-	-	24.8	25.3	25.6	23.8	19.8	20.7	-	-16.5
	Tax burden ratio	25.8	31.6	28.8	29.0	30.4	29.5	28.0	30.2	29.0	28.9	12.0
U.K.	Ratio of social security contributions	4.7	5.1	6.1	5.8	6.6	6.0	6.1	6.2	6.7	6.8	44.7
	National burden ratio	30.4	36.7	34.9	34.8	37.0	35.5	34.0	36.4	35.7	35.7	17.4
	Social security expenditure	-	-	-	16.5	19.4	16.8	19.9	18.6	20.6	-	24.8
	Tax burden ratio	21.4	22.7	20.4	20.6	19.1	20.5	20.9	22.6	20.5	19.5	-8.9
U.S.	Ratio of social security contributions	3.3	4.3	5.2	5.8	6.4	6.9	6.9	6.9	6.6	6.5	97.0
	National burden ratio	24.7	27.0	25.6	26.4	25.6	27.4	27.8	29.5	27.1	26.1	5.7
	Social security expenditure	-	-	-	13.2	13.1	13.5	15.4	14.5	15.8	-	19.7
	Tax burden ratio	24.3	27.9	28.8	27.7	28.1	31.5	30.6	30.8	28.4	27.6	13.6
Canada	Ratio of social security contributions	1.4	3.0	3.2	3.3	4.4	4.4	5.0	4.9	5.0	4.8	242.9
	National burden ratio	25.7	30.9	32.0	31.0	32.5	35.9	35.6	35.6	33.4	32.3	25.7
	Social security expenditure	-	-	-	13.7	17.0	18.1	18.9	16.5	17.0	-	24.1
	Tax burden ratio	20.5	20.9	25.2	26.0	27.6	27.7	28.0	30.3	29.8	27.1	32.2
Australia	Ratio of social security contributions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	National burden ratio	20.5	20.9	25.2	26.0	27.6	27.7	28.0	30.3	29.8	27.1	32.2
	Social security expenditure	-	-	-	10.3	12.1	13.1	16.2	17.3	16.5	-	60.2
	Tax burden ratio	10.5	10.0	9.7	11.6	16.3	21.0	20.5	22.3	23.7	21.1	101.0
Spain	Ratio of social security contributions	4.2	6.0	8.8	11.0	11.2	11.5	11.6	11.9	12.0	12.1	188.1
	National burden ratio	14.7	15.9	18.4	22.6	27.6	32.5	32.1	34.2	35.7	33.3	126.5
	Social security expenditure	-	-	-	15.6	17.8	20.0	21.4	20.4	21.4	-	37.2
	Tax burden ratio	16.8	16.0	13.7	18.4	22.0	25.4	27.5	30.2	28.3	29.8	77.4
Italy	Ratio of social security contributions	8.7	9.7	11.6	11.3	11.7	12.4	12.6	12.1	12.5	13.5	55.2
	National burden ratio	25.5	25.7	25.4	29.7	33.6	37.8	40.1	42.2	40.8	43.3	69.8
	Social security expenditure	-	-	-	18.0	20.8	20.0	19.9	23.3	25.0	-	38.9
	Tax burden ratio	12.4	13.6	12.5	15.7	18.1	19.6	21.5	22.9	22.7	23.7	91.1
Portugal	Ratio of social security contributions	3.5	4.3	6.6	6.6	6.3	7.3	9.4	9.9	11.0	11.5	228.6
	National burden ratio	15.9	17.8	19.1	22.2	24.5	26.9	30.9	32.8	33.7	35.2	121.4

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State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Greece	Social security expenditure	-	-	-	9.9	10.1	12.5	16.5	18.9	22.9	-	131.3
	Tax burden ratio	12.2	14.0	13.7	14.5	16.4	18.3	19.5	23.6	20.6	20.3	66.4
	Ratio of social security contributions	5.6	6.0	5.7	7.1	9.1	7.9	9.4	10.5	11.2	12.2	117.9
	National burden ratio	17.8	20.0	19.4	21.6	25.5	26.2	28.9	34.0	31.8	32.6	83.1
Japan	Social security expenditure	-	-	-	10.2	16.0	16.5	17.3	19.2	21.0	-	105.9
	Tax burden ratio	14.2	15.2	14.8	17.8	18.9	21.3	17.8	17.5	17.3	17.3	21.8
	Ratio of social security contributions	4.0	4.4	6.0	7.3	8.2	7.7	9.0	9.5	10.1	10.9	172.5
	National burden ratio	18.2	19.6	20.8	25.1	27.1	29.0	26.8	27.0	27.4	28.1	54.4
Korea	Social security expenditure	-	-	-	10.4	11.2	11.3	14.3	16.5	18.6	-	78.8
	Tax burden ratio	-	-	14.8	16.9	15.8	17.5	17.6	18.8	18.9	20.7	39.9
	Ratio of social security contributions	-	-	0.1	0.2	0.2	2.0	2.4	3.8	5.1	5.8	5700.0
	National burden ratio	-	-	14.9	17.1	16.1	19.5	20.0	22.6	24.0	26.5	77.9
Average	Social security expenditure	-	-	-	-	-	2.8	3.2	4.8	6.5	-	132.1
	Tax burden ratio	21.4	23.1	22.9	24.4	25.6	26.6	26.5	28.3	27.6	27.2	27.1
	Ratio of social security contributions	5.2	6.1	7.5	8.4	9.1	9.4	10.0	9.8	9.8	10.0	92.3
	National burden ratio	26.7	29.2	30.4	32.8	34.7	35.9	36.5	38.1	37.4	37.2	39.3
Average	Social security expenditure	-	-	-	17.7	19.7	19.3	21.6	20.8	22.1	-	24.9

〈Sub-table 2〉 Changes in Public Social Expenditure of Major OECD States  
(% of GDP)

State	Year	1980	1985	1990	1995	2000	2005	2007	Rate of change
Sweden	Total expenditure	27.2	29.5	30.2	32.0	28.4	29.1	27.3	0.4
	1.Aging	7.7	8.2	8.6	9.8	9.1	9.4	9.0	16.9
	2.Surviving family	0.6	0.7	0.7	0.7	0.6	0.6	0.5	-16.7
	3.Work Inability	4.8	4.6	5.5	4.9	5.1	5.5	5.0	4.2
	4.Health care	8.3	7.7	7.4	6.3	6.3	6.7	6.6	-20.5
	5.Family	3.9	4.1	4.4	3.8	3.0	3.3	3.4	-12.8
	6.Active labor market	-	2.1	1.6	2.2	1.7	1.3	1.1	-47.6
	7.Dwelling	1.1	0.7	0.6	1.1	0.6	0.5	0.5	-54.5
	8.	0.4	0.9	0.9	2.3	1.4	1.2	0.7	75.0
	9.Other social policies	0.4	0.6	0.5	1.0	0.7	0.6	0.6	50.0
Finland	Total expenditure	18.1	22.4	24.1	30.7	24.2	26.0	24.8	37.0
	1.Aging	5.1	7.0	7.0	8.5	7.5	8.5	8.4	64.7
	2.Surviving family	0.9	1.0	1.0	1.1	0.9	0.9	0.8	-11.1
	3.Work Inability	3.5	3.9	4.2	5.1	3.8	3.8	3.6	2.9
	4.Health care	5.0	5.4	6.1	5.5	5.0	6.1	6.0	20.0
	5.Family	1.9	2.6	3.2	4.1	3.0	3.0	2.8	47.4
	6.Active labor market	0.8	0.7	0.9	1.4	0.9	0.9	0.9	12.5
	7.Dwelling	0.2	0.2	0.2	0.5	0.4	0.3	0.2	0.0
	8.Unemployment	0.7	1.3	1.1	3.9	2.2	2.0	1.6	128.6
	9.Other social policies	0.2	0.3	0.5	0.6	0.5	0.5	0.6	200.0
Norway	Total expenditure	16.9	17.8	22.3	23.3	21.3	21.7	20.8	23.1
	1.Aging	5.1	5.5	7.1	7.1	6.5	6.3	6.2	21.6
	2.Surviving family	0.6	0.5	0.4	0.4	0.3	0.3	0.3	-50.0
	3.Work Inability	3.4	3.5	4.7	4.7	4.6	4.4	4.3	26.5
	4.Health care	4.9	4.5	4.3	4.3	5.0	5.8	5.7	16.3
	5.Family	1.8	1.9	2.7	3.6	3.1	2.8	2.8	55.6
	6.Active labor market	-	0.6	0.9	1.3	0.6	0.7	0.6	0.0
	7.Dwelling	0.4	0.2	0.2	0.2	0.2	0.1	0.1	-75.0
	8.Unemployment	0.4	0.5	1.1	1.1	0.5	0.5	0.2	-50.0
	9.Other social policies	0.4	0.8	0.9	0.8	0.6	0.7	0.6	50.0
Denmark	Total expenditure	24.8	23.2	25.1	28.9	25.7	27.2	26.1	5.2
	1.Aging	7.0	6.9	7.4	8.4	7.1	7.3	7.3	4.3
	2.Surviving family	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0
	3.Work Inability	4.2	3.2	3.3	3.7	3.6	4.3	4.4	4.8
	4.Health care	5.5	5.1	4.7	4.6	5.1	6.1	6.5	18.2
	5.Family	2.8	2.6	3.3	3.8	3.3	3.4	3.3	17.9
	6.Active labor market	-	-	0.8	1.9	1.9	1.6	1.3	62.5
	7.Dwelling	0.4	0.5	0.6	0.8	0.7	0.7	0.7	75.0
	8.Unemployment	4.8	4.2	4.2	4.4	3.0	2.8	1.9	-60.4
	9.Other social policies	-	0.8	1.0	1.4	1.0	1.0	0.7	-12.5
Germany	Total expenditure	22.1	22.5	21.7	26.8	26.6	27.2	25.2	14.0
	1.Aging	9.7	9.8	9.4	8.0	8.8	9.2	8.7	-10.3
	2.Surviving family	0.9	0.7	0.5	2.7	2.5	2.3	2.1	133.3

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State	Year	1980	1985	1990	1995	2000	2005	2007	Rate of change
	3.Work Inability	2.0	1.8	1.5	2.5	2.2	2.0	1.9	-5.0
	4.Health care	6.6	6.8	6.3	8.2	8.1	8.1	7.9	19.7
	5.Family	2.0	1.5	1.7	2.1	2.1	2.1	1.8	-10.0
	6.Active labor market	-	0.5	0.9	1.2	1.2	0.9	0.7	40.0
	7.Dwelling	0.1	0.1	0.2	0.3	0.3	0.6	0.6	500.0
	8.Unemployment	0.5	0.9	0.9	1.6	1.3	1.9	1.4	180.0
	9.Other social policies	0.3	0.4	0.5	0.2	0.2	0.2	0.2	-33.3
	Total expenditure	20.8	26.0	24.9	28.5	27.7	29.0	28.4	36.5
	1.Aging	7.6	8.6	9.2	10.6	10.5	10.9	11.1	46.1
France	2.Surviving family	1.9	2.0	1.6	1.7	1.5	1.8	1.8	-5.3
	3.Work Inability	2.8	2.8	2.1	2.1	1.7	1.8	1.8	-35.7
	4.Health care	5.6	6.3	6.2	7.4	7.1	7.7	7.5	33.9
	5.Family	2.4	2.7	2.5	2.7	3.0	3.0	3.0	25.0
	6.Active labor market	-	0.6	0.7	1.2	1.2	0.9	0.9	50.0
	7.Dwelling	0.4	0.7	0.8	0.9	0.9	0.8	0.8	100.0
	8.Unemployment	0.0	2.3	1.7	1.6	1.5	1.7	1.4	-39.1
	9.Other social policies	0.0	0.0	0.2	0.3	0.3	0.4	0.4	100.0
	Total expenditure	23.5	26.0	24.9	26.3	25.4	26.4	26.3	11.9
Belgium	1.Aging	5.9	6.3	6.5	7.0	6.9	7.2	7.1	20.3
	2.Surviving family	3.0	3.0	2.6	2.4	2.1	2.0	1.9	-36.7
	3.Work Inability	3.7	3.7	2.6	3.0	2.7	2.3	2.3	-37.8
	4.Health care	5.2	5.7	6.4	6.5	6.6	7.4	7.3	40.4
	5.Family	3.0	2.6	2.3	2.3	2.7	2.6	2.6	-13.3
	6.Active labor market	-	1.2	1.1	1.2	1.2	1.1	1.2	0.0
	7.Dwelling	-	-	-	-	0.0	0.1	0.2	100.0
	8.Unemployment	2.4	3.3	2.9	3.2	2.8	3.3	3.1	29.2
	9.Other social policies	0.3	0.3	0.5	0.7	0.4	0.4	0.7	133.3
Austria	Total expenditure	22.4	23.7	23.8	26.6	26.7	27.4	26.4	17.9
	1.Aging	10.0	10.9	8.9	10.0	10.4	10.8	10.7	7.0
	2.Surviving family	0.7	0.7	2.6	2.5	2.3	2.1	2.0	185.7
	3.Work Inability	2.7	2.8	2.7	2.9	2.9	2.6	2.3	-14.8
	4.Health care	5.1	4.9	5.4	6.0	6.6	6.9	6.8	33.3
	5.Family	3.1	2.8	2.6	3.1	2.8	2.8	2.6	-16.1
	6.Active labor market	-	0.3	0.3	0.4	0.5	0.6	0.7	133.3
	7.Dwelling	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0
	8.Unemployment	0.4	0.9	0.9	1.3	1.0	1.2	0.9	125.0
Netherlands	9.Other social policies	0.2	0.3	0.3	0.3	0.2	0.3	0.3	50.0
	Total expenditure	24.8	25.3	25.6	23.8	19.8	20.7	20.1	-19.0
	1.Aging	6.1	5.9	6.3	5.5	5.3	5.5	5.3	-13.1
	2.Surviving family	0.8	0.7	0.9	0.7	0.4	0.3	0.3	-62.5
	3.Work Inability	6.5	5.5	6.3	5.0	3.9	3.5	2.9	-55.4
	4.Health care	5.2	5.2	5.4	5.9	5.0	5.9	6.0	15.4
	5.Family	2.5	2.1	1.7	1.3	1.5	1.7	2.0	-20.0
	6.Active labor market	0.6	1.3	1.3	1.4	1.5	1.3	1.1	83.3
	7.Dwelling	0.3	0.3	0.3	0.4	0.4	0.3	0.4	33.3
8.Unemployment	1.6	3.3	2.5	2.8	1.3	1.6	1.1	-31.3	

State	Year	1980	1985	1990	1995	2000	2005	2007	Rate of change
U.K.	9.Other social policies	1.3	0.9	0.8	0.7	0.6	0.6	1.1	-15.4
	Total expenditure	16.5	19.4	16.8	19.9	18.6	20.6	20.5	24.2
	1.Aging	4.2	4.4	4.9	5.5	5.5	5.9	5.8	38.1
	2.Surviving family	1.7	1.5	0.3	0.4	0.3	0.2	0.1	-94.1
	3.Work Inability	1.0	1.5	2.2	2.9	2.5	2.3	2.4	140.0
	4.Health care	4.9	4.9	4.9	5.6	5.5	6.7	6.8	38.8
	5.Family	2.3	2.3	1.9	2.3	2.7	3.2	3.2	39.1
	6.Active labor market	0.5	0.7	0.6	0.4	0.2	0.4	0.3	-40.0
	7.Dwelling	0.1	1.3	1.3	1.8	1.4	1.4	1.4	1300.0
	8.Unemployment	1.2	2.0	0.7	0.9	0.3	0.3	0.2	-83.3
U.S.	9.Other social policies	0.6	0.9	0.2	0.2	0.2	0.2	0.2	-66.7
	Total expenditure	13.2	13.1	13.5	15.4	14.5	15.8	16.2	22.7
	1.Aging	5.2	5.3	5.2	5.4	5.1	5.3	5.3	1.9
	2.Surviving family	1.1	1.0	0.9	1.0	0.8	0.8	0.7	-36.4
	3.Work Inability	1.1	1.0	1.0	1.2	1.1	1.3	1.3	18.2
	4.Health care	3.7	4.1	4.9	6.2	5.9	7.0	7.2	94.6
	5.Family	0.8	0.6	0.5	0.6	0.7	0.7	0.7	-12.5
	6.Active labor market	-	0.3	0.2	0.2	0.2	0.1	0.1	-66.7
	7.Dwelling	-	-	-	-	-	-	-	-
	8.Unemployment	0.7	0.4	0.4	0.4	0.2	0.3	0.3	-57.1
Canada	9.Other social policies	0.5	0.4	0.4	0.6	0.5	0.6	0.6	20.0
	Total expenditure	13.7	17.0	18.1	18.9	16.5	17.0	16.9	23.4
	1.Aging	2.8	3.4	3.8	4.2	3.9	3.8	3.8	35.7
	2.Surviving family	0.2	0.3	0.4	0.5	0.4	0.4	0.4	100.0
	3.Work Inability	0.8	1.0	1.2	1.2	1.0	0.9	0.9	12.5
	4.Health care	5.1	6.1	6.6	6.4	6.2	6.9	7.0	37.3
	5.Family	0.8	0.7	0.6	0.8	1.0	1.1	1.0	25.0
	6.Active labor market	-	0.6	0.5	0.6	0.4	0.3	0.3	-50.0
	7.Dwelling	0.8	0.7	0.7	0.6	0.6	0.5	0.4	-50.0
	8.Unemployment	1.2	1.9	1.9	1.3	0.7	0.6	0.6	-50.0
Australia	9.Other social policies	2.0	2.3	2.5	3.4	2.5	2.6	2.6	30.0
	Total expenditure	10.3	12.1	13.1	16.2	17.3	16.5	16.0	55.3
	1.Aging	3.1	2.9	3.3	3.9	4.7	4.3	4.3	38.7
	2.Surviving family	0.6	0.5	0.3	0.3	0.2	0.2	0.2	-66.7
	3.Work Inability	0.9	1.0	1.7	2.4	2.6	2.4	2.3	155.6
	4.Health care	3.8	4.5	4.4	4.8	5.4	5.6	5.7	50.0
	5.Family	0.9	1.1	1.5	2.7	2.9	2.7	2.5	177.8
	6.Active labor market	-	0.4	0.2	0.7	0.4	0.4	0.3	-25.0
	7.Dwelling	0.3	0.3	0.3	0.2	0.1	0.2	0.3	0.0
	8.Unemployment	0.6	1.2	1.1	1.2	0.9	0.5	0.4	-33.3
Spain	9.Other social policies	0.2	0.2	0.4	0.2	0.2	0.1	0.1	-50.0
	Total expenditure	15.6	17.8	20.0	21.4	20.4	21.4	21.6	38.5
	1.Aging	4.6	5.8	7.2	8.3	8.3	8.0	6.5	41.3
	2.Surviving family	1.7	1.8	0.9	0.9	0.6	0.6	1.9	11.8
	3.Work Inability	2.4	2.5	2.3	2.5	2.4	2.5	2.5	4.2
4.Health care	4.2	4.4	5.1	5.4	5.2	5.9	6.1	45.2	

A Study on the Relation Between Welfare Level and Tax Structure

State	Year	1980	1985	1990	1995	2000	2005	2007	Rate of change
	5.Family	0.5	0.3	0.3	0.4	1.0	1.2	1.2	140.0
	6.Active labor market	0.2	0.3	0.8	0.4	0.8	0.7	0.7	250.0
	7.Dwelling	0.0	0.0	0.1	0.2	0.2	0.2	0.2	100.0
	8.Unemployment	2.0	2.7	3.2	3.2	2.0	2.2	2.1	5.0
	9.Other social policies	0.0	0.0	0.1	0.1	0.1	0.2	0.3	200.0
Italy	Total expenditure	18.0	20.8	20.0	19.9	23.3	25.0	24.9	38.3
	1.Aging	7.2	9.0	8.3	9.4	11.2	11.6	11.7	62.5
	2.Surviving family	1.7	2.2	1.9	2.1	2.5	2.5	2.4	41.2
	3.Work Inability	1.9	2.1	2.0	1.8	1.6	1.7	1.7	-10.5
	4.Health care	5.5	5.3	6.1	5.1	5.9	6.8	6.7	21.8
	5.Family	1.1	0.9	0.8	0.6	1.2	1.3	1.4	27.3
	6.Active labor market	-	-	0.2	0.3	0.6	0.6	0.5	150.0
	7.Dwelling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8.Unemployment	0.6	1.3	0.6	0.7	0.4	0.5	0.4	-33.3
	9.Other social policies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	Total expenditure	9.9	10.1	12.5	16.5	18.9	22.9	22.5	127.3
	1.Aging	3.1	3.3	4.1	6.0	6.7	8.9	9.2	196.8
	2.Surviving family	0.6	0.8	0.9	1.2	1.3	1.5	1.6	166.7
	3.Work Inability	1.9	2.1	2.3	2.3	2.3	2.2	2.1	10.5
	4.Health care	3.3	3.0	3.7	4.7	6.2	7.1	6.6	100.0
	5.Family	0.7	0.6	0.7	0.7	1.0	1.2	1.2	71.4
	6.Active labor market	-	-	0.5	0.5	0.6	0.7	0.5	0.0
	7.Dwelling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8.Unemployment	0.3	0.3	0.3	0.9	0.6	1.2	1.0	233.3
	9.Other social policies	0.0	0.0	0.0	0.1	0.3	0.2	0.3	200.0
Greece	Total expenditure	10.2	16.0	16.5	17.3	19.2	21.0	21.3	108.8
	1.Aging	4.6	7.2	9.3	9.2	10.1	11.0	10.0	117.4
	2.Surviving family	0.8	1.5	0.5	0.5	0.8	0.8	2.0	150.0
	3.Work Inability	1.0	1.8	1.2	0.8	0.9	0.9	0.9	-10.0
	4.Health care	3.3	4.6	3.6	4.5	4.7	5.8	5.9	78.8
	5.Family	0.3	0.3	0.7	1.0	1.0	1.1	1.1	266.7
	6.Active labor market	-	0.2	0.2	0.4	0.2	0.1	0.2	0.0
	7.Dwelling	0.1	0.2	0.4	0.5	0.7	0.5	0.5	400.0
	8.Unemployment	0.2	0.3	0.4	0.4	0.4	0.4	0.5	150.0
	9.Other social policies	0.0	0.0	0.1	0.1	0.3	0.4	0.4	300.0
Japan	Total expenditure	10.4	11.2	11.3	14.3	16.5	18.6	18.7	79.8
	1.Aging	3.0	3.9	4.1	5.3	6.9	8.6	8.8	193.3
	2.Surviving family	1.0	1.0	0.9	1.1	1.2	1.3	1.3	30.0
	3.Work Inability	0.7	0.6	0.6	0.7	0.7	0.7	0.8	14.3
	4.Health care	4.5	4.7	4.5	5.7	5.9	6.3	6.3	40.0
	5.Family	0.5	0.5	0.4	0.5	0.7	0.8	0.8	60.0
	6.Active labor market	-	-	0.3	0.3	0.3	0.3	0.2	-33.3
	7.Dwelling	-	-	-	-	-	-	-	-
	8.Unemployment	0.5	0.4	0.3	0.5	0.6	0.3	0.3	-40.0
	9.Other social policies	0.2	0.2	0.2	0.2	0.2	0.3	0.3	50.0
Korea	Total expenditure	-	-	2.8	3.2	4.8	6.5	7.6	171.4



State	Year	1980	1985	1990	1995	2000	2005	2007	Rate of change
	1.Aging	-	-	0.6	1.1	1.2	1.4	1.6	166.7
	2.Surviving family	-	-	0.2	0.2	0.2	0.2	0.3	50.0
	3.Work Inability	-	-	0.3	0.4	0.4	0.5	0.6	100.0
	4.Health care	-	-	1.5	1.5	2.2	3.0	3.5	133.3
	5.Family	-	-	0.0	0.1	0.1	0.3	0.5	400.0
	6.Active labor market	-	-	0.0	0.0	0.4	0.1	0.1	-75.0
	7.Dwelling	-	-	-	-	-	-	-	-
	8.Unemployment	-	-	-	-	0.1	0.2	0.3	200.0
	9.Other social policies	-	-	0.2	0.1	0.3	0.7	0.8	300.0
Average	Total expenditure	17.7	19.7	19.3	21.6	20.8	22.1	21.7	22.6
	1.Aging	5.7	6.4	6.4	7.0	7.1	7.6	7.4	29.8
	2.Surviving family	1.0	1.1	0.9	1.1	1.0	1.0	1.1	10.0
	3.Work Inability	2.5	2.5	2.5	2.6	2.4	2.4	2.3	-8.0
	4.Health care	5.0	5.2	5.1	5.5	5.7	6.4	6.4	28.0
	5.Family	1.7	1.7	1.7	1.9	1.9	2.0	2.0	17.6
	6.Active labor market	0.5	0.7	0.6	0.8	0.8	0.7	0.6	20.0
	7.Dwelling	0.3	0.3	0.4	0.5	0.4	0.4	0.4	33.3
	8.Unemployment	1.0	1.6	1.4	1.8	1.1	1.2	1.0	0.0
9.Other social policies	0.4	0.5	0.5	0.6	0.5	0.5	0.5	25.0	

Note: In case the value is 0, the value of the closest year, which is not 0, was used for calculation.

〈Sub-table 3〉 Changes in Composition of Tax Revenue of Major OECD States (% of GDP)

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Sweden	1.Income tax	18.3	20.5	20.9	20.2	20.0	21.8	18.6	21.0	19.1	16.8	-8.2
	Personal income tax	16.3	18.9	19.1	19.1	18.4	20.1	15.9	17.1	15.4	13.8	-15.3
	Corporate income tax	2.0	1.7	1.8	1.1	1.7	1.6	2.8	3.9	3.7	3.0	50.0
	2.Social security contributions	4.0	5.7	8.1	13.4	11.8	14.2	13.1	13.6	13.1	11.5	187.5
	Employee	0.6	0.7	0.0	0.0	0.1	0.1	1.6	2.8	2.7	2.7	350.0
	Employer	3.0	4.5	7.6	12.8	11.3	13.6	11.2	10.5	10.2	8.7	190.0
	3.Payroll tax	0.0	0.4	1.8	1.2	1.8	1.3	1.0	2.2	2.3	3.9	875.0
	4.Property tax	0.6	0.6	0.5	0.4	1.1	1.8	1.3	1.8	1.4	1.1	83.3
	5.Goods & service tax	10.4	10.7	10.1	11.2	12.6	13.0	13.4	12.7	12.8	12.8	23.1
	General consumption tax	3.5	3.9	5.0	6.2	6.6	7.8	9.2	8.7	9.0	9.4	168.6
Special consumption tax	6.4	6.2	4.4	4.3	5.5	4.8	3.9	3.6	3.3	2.9	-54.7	
6.Other taxes	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	
Finland	1.Income tax	12.6	14.1	15.8	14.0	16.2	17.2	16.5	20.4	16.8	16.8	33.3
	Personal income tax	10.1	12.4	14.1	12.8	14.9	15.2	14.2	14.5	13.5	13.3	31.7
	Corporate income tax	2.5	1.7	1.7	1.2	1.4	2.0	2.3	5.9	3.3	3.5	40.0
	2.Social security contributions	2.1	2.8	7.5	8.4	8.7	11.2	14.1	11.9	12.0	12.1	476.2
	Employee	0.0	0.2	1.5	1.2	1.5	1.3	2.6	2.2	2.2	2.2	1000.0
	Employer	2.1	2.6	5.5	6.7	6.6	9.1	9.9	8.8	9.0	9.0	328.6
	3.Payroll tax	1.6	1.4	0.9	0.1	0.2	0.0	0.0	0.0	0.0	-	-87.5
	4.Property tax	1.2	0.7	0.7	0.7	1.1	1.1	1.0	1.1	1.2	1.1	-8.3
	5.Goods & service tax	12.9	12.5	11.7	12.6	13.5	14.2	14.0	13.7	13.8	13.0	0.8
	General consumption tax	5.6	6.1	5.7	6.2	7.3	8.4	7.9	8.2	8.7	8.4	50.0
Special consumption tax	7.1	6.3	5.8	6.3	6.0	5.6	5.7	5.1	4.7	4.2	-40.8	
6.Other taxes	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
Norway	1.Income tax	12.9	13.3	13.5	17.7	16.9	14.4	14.3	19.2	21.4	21.6	67.4
	Personal income tax	11.7	12.1	12.4	12.1	9.6	10.7	10.6	10.3	9.7	9.1	-22.2
	Corporate income tax	1.1	1.1	1.1	5.7	7.3	3.7	3.8	8.9	11.8	12.5	1036.4
	2.Social security contributions	3.5	5.5	9.7	9.0	8.9	10.8	9.6	8.9	8.9	8.9	154.3
	Employee	0.0	0.0	1.9	2.1	2.4	3.4	3.4	3.0	3.0	2.9	52.6
	Employer	3.0	4.8	7.2	6.5	6.1	6.8	5.6	5.3	5.4	5.4	80.0
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.Property tax	0.9	0.8	0.9	0.7	0.8	1.2	1.1	1.0	1.1	1.2	33.3
	5.Goods & service tax	12.2	14.8	14.7	15.0	16.0	14.6	15.8	13.5	12.1	10.9	-10.7
	General consumption tax	6.4	8.2	8.0	7.7	7.8	7.7	8.7	8.4	7.9	7.3	14.1
Special consumption tax	5.5	6.2	6.3	6.8	7.7	6.3	6.3	4.1	3.4	3.0	-45.5	
6.Other taxes	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0	
Denmark	1.Income tax	14.0	20.0	22.6	23.8	26.6	28.0	30.1	29.8	31.2	29.2	108.6
	Personal income tax	12.7	18.9	21.4	22.5	23.4	24.8	26.2	25.5	24.9	25.2	98.4
	Corporate income tax	1.4	1.0	1.2	1.4	2.2	1.7	2.3	3.3	3.9	3.4	142.9
	2.Social security contributions	1.1	1.2	0.2	0.6	1.4	0.9	1.1	1.8	1.1	1.0	-9.1
	Employee	1.0	1.0	0.1	0.4	0.8	0.9	1.1	1.8	1.1	1.0	0.0
	Employer	0.2	0.2	0.1	0.2	0.6	0.0	0.0	0.0	0.0	0.0	200.0
3.Payroll tax	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.2	0.2	0.2	-33.3	

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	4.Property tax	2.4	2.3	2.3	2.5	2.0	1.9	1.7	1.6	1.9	2.0	-16.7
	5.Goods & service tax	12.4	14.9	13.2	16.1	15.8	15.4	15.7	15.9	16.3	15.6	25.8
	General consumption tax	3.0	7.2	6.6	9.6	9.3	9.5	9.4	9.5	10.0	10.1	236.7
	Special consumption tax	8.7	6.9	5.8	5.8	6.0	5.1	5.6	5.5	5.4	4.7	-46.0
	6.Other taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Germany	1.Income tax	10.7	10.2	11.8	12.8	12.5	11.3	11.3	11.2	9.8	11.5
Personal income tax		8.2	8.4	10.3	10.8	10.3	9.6	10.2	9.4	8.1	9.6	17.1
Corporate income tax		2.5	1.8	1.5	2.0	2.2	1.7	1.0	1.8	1.7	1.9	-24.0
2.Social security contributions		8.5	9.6	11.7	12.5	13.2	13.0	14.5	14.5	13.9	13.9	63.5
Employee		3.7	4.3	5.1	5.6	5.7	5.6	6.4	6.4	6.1	6.1	64.9
Employer		4.6	5.1	6.3	6.7	6.8	6.6	7.2	7.1	6.7	6.5	41.3
3.Payroll tax		0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-50.0
4.Property tax		1.8	1.6	1.3	1.2	1.1	1.2	1.0	0.8	0.9	0.9	-50.0
5.Goods & service tax		10.4	10.0	9.2	9.9	9.3	9.3	10.4	10.4	10.1	10.5	1.0
General consumption tax		5.2	5.4	5.0	6.1	5.7	5.8	6.5	6.8	6.2	7.1	36.5
Special consumption tax		4.6	4.1	3.7	3.4	3.2	3.2	3.5	3.3	3.4	3.1	-32.6
6.Other taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
France	1.Income tax	5.4	5.8	5.6	6.7	6.8	6.7	7.0	11.1	10.3	10.4	92.6
	Personal income tax	3.6	3.7	3.7	4.7	4.9	4.5	4.9	8.0	7.9	7.5	108.3
	Corporate income tax	1.8	2.1	1.8	2.1	1.9	2.2	2.1	3.1	2.4	2.9	61.1
	2.Social security contributions	11.6	12.4	14.4	17.1	18.5	18.5	18.4	16.0	16.2	16.1	38.8
	Employee	2.2	2.4	3.0	4.5	5.0	5.6	5.7	4.0	4.1	4.0	81.8
	Employer	8.6	9.1	10.4	11.4	12.0	11.4	11.3	11.0	11.0	10.9	26.7
	3.Payroll tax	1.6	0.4	0.7	0.9	0.9	0.8	1.1	1.0	1.2	1.2	-25.0
	4.Property tax	1.5	1.6	1.8	1.9	2.5	2.7	2.9	3.1	3.4	3.4	126.7
	5.Goods & service tax	13.1	13.0	11.8	12.2	12.7	11.9	11.9	11.4	11.1	10.6	-19.1
	General consumption tax	7.9	8.7	8.3	8.5	8.5	7.9	7.5	7.5	7.5	7.3	-7.6
	Special consumption tax	4.9	4.0	3.2	3.4	3.7	3.7	4.0	3.6	3.3	3.0	-38.8
	6.Other taxes	0.9	0.9	1.1	1.2	1.4	1.4	1.7	1.7	1.5	1.4	55.6
Belgium	1.Income tax	8.6	10.7	15.6	17.0	18.0	15.5	16.6	17.2	17.1	16.8	95.3
	Personal income tax	6.4	8.5	12.9	15.0	15.8	13.4	14.2	14.0	13.8	13.5	110.9
	Corporate income tax	1.9	2.2	2.7	1.9	2.2	2.0	2.4	3.2	3.3	3.3	73.7
	2.Social security contributions	9.8	9.7	11.9	11.9	14.0	13.9	14.3	13.9	13.6	13.9	41.8
	Employee	2.8	3.0	3.5	3.5	4.5	4.3	4.4	4.3	4.2	4.2	50.0
	Employer	6.4	6.1	7.4	7.5	8.2	8.8	8.6	8.3	8.2	8.4	31.3
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.Property tax	1.2	1.3	1.1	1.2	1.1	1.4	1.5	1.9	2.1	2.2	83.3
	5.Goods & service tax	11.6	12.1	10.8	11.2	11.3	11.1	11.2	11.4	11.3	10.8	-6.9
	General consumption tax	6.6	7.2	6.4	7.0	7.0	7.0	6.7	7.3	7.2	7.0	6.1
	Special consumption tax	4.0	4.5	3.9	3.6	3.6	3.5	3.7	3.2	3.3	3.1	-22.5
	6.Other taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Austria	1.Income tax	8.6	8.5	9.6	10.4	10.8	10.1	10.9	12.3	12.0	13.1	52.3
	Personal income tax	6.8	7.0	7.9	9.0	9.4	8.3	8.6	9.5	9.3	9.9	45.6
	Corporate income tax	1.8	1.5	1.6	1.4	1.4	1.4	1.4	2.0	2.2	2.5	38.9
	2.Social security contributions	8.4	8.6	10.1	12.0	13.0	13.0	14.9	14.8	14.6	14.3	70.2
	Employee	3.7	3.8	4.2	5.0	5.4	5.5	6.3	6.0	5.9	5.8	56.8

A Study on the Relation Between Welfare Level and Tax Structure

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	Employer	3.9	4.0	5.0	6.0	6.5	6.4	7.3	7.1	6.8	6.7	71.8
	3.Payroll tax	2.6	2.6	2.9	2.7	2.3	2.4	2.9	2.8	2.7	2.8	7.7
	4.Property tax	1.3	1.3	1.1	1.1	1.0	1.1	0.6	0.6	0.6	0.5	-61.5
	5.Goods & service tax	12.7	12.6	12.6	12.2	13.3	12.5	11.9	12.3	12.1	11.6	-8.7
	General consumption tax	6.3	6.3	7.3	7.8	8.6	8.2	7.7	8.1	8.0	7.7	22.2
	Special consumption tax	6.1	6.1	5.1	3.9	4.1	3.6	3.5	3.5	3.4	3.1	-49.2
6.Other taxes	0.2	0.2	0.2	0.3	0.4	0.5	0.3	0.3	0.3	0.3	50.0	
Netherlands	1.Income tax	11.7	11.9	14.2	14.1	11.2	13.8	10.9	10.0	10.7	10.6	-9.4
	Personal income tax	9.1	9.5	11.0	11.3	8.2	10.6	7.8	6.0	6.9	7.5	-17.6
	Corporate income tax	2.6	2.4	3.1	2.8	3.0	3.2	3.1	4.0	3.8	3.2	23.1
	2.Social security contributions	10.1	12.5	15.6	16.3	18.8	16.0	17.4	15.4	13.1	14.5	43.6
	Employee	5.0	5.5	6.7	6.8	8.4	9.9	11.1	7.7	6.4	6.8	36.0
	Employer	4.1	5.9	7.2	7.6	7.5	3.2	2.8	4.5	4.1	4.9	19.5
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
	4.Property tax	1.4	1.2	1.0	1.5	1.5	1.6	1.7	2.1	2.0	1.6	14.3
	5.Goods & service tax	9.4	9.9	9.8	10.8	10.9	11.3	11.3	11.5	12.2	11.8	25.5
	General consumption tax	4.1	5.2	5.8	6.8	6.9	7.1	6.5	6.9	7.5	7.2	75.6
Special consumption tax	4.8	4.1	3.3	3.1	3.1	3.2	3.7	3.5	3.6	3.4	-29.2	
6.Other taxes	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	100.0	
U.K.	1.Income tax	11.3	14.8	15.6	13.1	14.3	14.0	12.6	14.2	13.7	14.3	26.5
	Personal income tax	10.1	11.6	14.0	10.2	9.6	10.4	9.8	10.7	10.4	10.7	5.9
	Corporate income tax	1.3	3.2	2.2	2.9	4.7	3.5	2.8	3.5	3.3	3.6	176.9
	2.Social security contributions	4.7	5.1	6.1	5.8	6.6	6.0	6.1	6.2	6.7	6.8	44.7
	Employee	2.1	2.3	2.4	2.2	3.1	2.3	2.5	2.5	2.8	2.6	23.8
	Employer	2.3	2.6	3.8	3.5	3.4	3.5	3.3	3.5	3.7	3.9	69.6
	3.Payroll tax	0.0	1.6	-	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-6.3
	4.Property tax	4.4	4.6	4.4	4.2	4.4	2.9	3.4	4.2	4.3	4.2	-4.5
	5.Goods & service tax	10.1	10.6	8.7	10.2	11.7	11.0	12.0	11.6	10.8	10.3	2.0
	General consumption tax	1.8	2.5	3.1	5.1	5.9	6.0	6.5	6.6	6.7	6.4	255.6
Special consumption tax	7.7	7.3	5.2	4.6	5.1	4.5	4.9	4.5	3.7	3.5	-54.5	
6.Other taxes	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	
U.S.	1.Income tax	11.9	13.4	11.8	13.2	11.6	12.6	12.8	14.9	12.7	11.8	-0.8
	Personal income tax	7.8	9.9	8.9	10.3	9.7	10.1	9.9	12.3	9.5	9.9	26.9
	Corporate income tax	4.0	3.6	2.9	2.8	1.9	2.4	2.9	2.6	3.1	1.8	-55.0
	2.Social security contributions	3.3	4.3	5.2	5.8	6.4	6.9	6.9	6.9	6.6	6.5	97.0
	Employee	1.2	1.9	2.2	2.4	2.7	3.0	3.0	3.1	2.9	2.9	141.7
	Employer	1.9	2.3	2.8	3.1	3.5	3.5	3.6	3.5	3.4	3.3	73.7
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.Property tax	3.9	3.8	3.6	2.8	2.7	3.1	3.1	3.0	3.0	3.2	-17.9
	5.Goods & service tax	5.6	5.4	5.0	4.7	4.8	4.8	5.0	4.7	4.8	4.6	-17.9
	General consumption tax	1.2	1.6	1.8	1.9	2.0	2.2	2.2	2.2	2.2	2.1	75.0
Special consumption tax	3.7	3.2	2.6	2.2	2.1	1.9	2.1	1.8	1.8	1.6	-56.8	
6.Other taxes	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	0.0	
Canada	1.Income tax	9.9	13.8	15.1	14.4	14.4	17.4	16.5	17.8	15.8	15.9	60.6
	Personal income tax	5.8	10.0	10.5	10.6	11.5	14.7	13.4	13.1	11.9	12.0	106.9
	Corporate income tax	3.8	3.5	4.3	3.6	2.7	2.5	2.9	4.4	3.5	3.3	-13.2

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	2.Social security contributions	1.4	3.0	3.2	3.3	4.4	4.4	5.0	4.9	5.0	4.8	242.9
	Employee	0.5	1.3	1.2	1.2	1.5	1.6	1.8	2.0	2.0	1.9	280.0
	Employer	0.9	1.6	2.0	2.1	2.8	2.7	3.0	2.8	2.8	2.7	200.0
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.7	0.7	0.7	-12.5
	4.Property tax	3.7	3.9	3.0	2.8	3.0	3.6	3.8	3.4	3.4	3.4	-8.1
	5.Goods & service tax	10.4	9.8	10.2	10.1	10.3	9.3	9.0	8.6	8.5	7.6	-26.9
	General consumption tax	4.6	4.5	4.0	3.6	4.3	5.1	5.0	5.1	5.0	4.3	-6.5
	Special consumption tax	4.3	4.1	4.3	4.0	4.2	3.7	3.5	3.1	3.0	2.8	-34.9
	6.Other taxes	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.0	-66.7
Australia	1.Income tax	10.4	11.4	14.1	14.6	15.0	15.8	15.5	17.6	17.6	16.0	53.8
	Personal income tax	7.0	7.8	11.0	11.4	12.5	11.9	11.4	11.4	11.8	10.2	45.7
	Corporate income tax	3.3	3.6	3.1	3.2	2.6	3.9	4.1	6.1	5.8	5.9	78.8
	2.Social security contributions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Employee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Employer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.Payroll tax	0.6	0.6	1.5	1.3	1.3	1.7	1.9	1.4	1.3	1.4	133.3
	4.Property tax	2.3	2.3	2.2	2.0	2.2	2.5	2.5	2.7	2.6	2.2	-4.3
	5.Goods & service tax	7.1	6.7	7.4	8.1	9.1	7.7	8.1	8.7	8.3	7.4	4.2
	General consumption tax	1.5	1.6	1.7	1.4	2.2	2.2	2.4	3.6	4.0	3.5	133.3
	Special consumption tax	4.6	4.3	4.8	5.9	5.7	4.2	4.1	4.3	3.6	3.3	-28.3
	6.Other taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.Income tax	3.6	3.2	4.1	5.9	6.8	10.0	9.4	9.7	10.5	10.3	186.1
	Personal income tax	2.1	1.8	2.7	4.6	5.4	7.1	7.6	6.4	6.4	7.1	238.1
Corporate income tax	1.4	1.3	1.3	1.1	1.4	2.9	1.7	3.1	3.9	2.8	100.0	
2.Social security contributions	4.2	6.0	8.8	11.0	11.2	11.5	11.6	11.9	12.0	12.1	188.1	
Employee	1.0	1.2	1.7	2.4	2.0	1.9	1.9	1.8	1.8	1.8	80.0	
Employer	3.2	4.8	7.1	8.5	8.4	8.3	8.0	8.7	8.8	8.8	175.0	
3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.Property tax	0.9	1.0	1.2	1.0	1.6	1.8	1.8	2.2	3.1	2.3	155.6	
5.Goods & service tax	6.0	5.7	4.5	4.7	7.8	9.2	9.2	10.1	9.9	8.3	38.3	
General consumption tax	3.3	3.2	2.8	2.3	4.1	5.2	5.1	6.0	6.2	5.2	57.6	
Special consumption tax	2.7	2.5	1.6	2.4	3.5	3.4	3.3	3.3	3.0	2.6	-3.7	
6.Other taxes	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.1	-50.0	
Spain	1.Income tax	4.6	4.5	5.4	9.3	12.4	13.8	14.2	14.0	12.9	14.9	223.9
	Personal income tax	2.8	2.8	3.8	6.9	9.0	9.9	10.4	10.5	10.4	11.6	314.3
	Corporate income tax	1.8	1.7	1.6	2.3	3.1	3.8	3.5	2.9	2.8	3.7	105.6
	2.Social security contributions	8.7	9.7	11.6	11.3	11.7	12.4	12.6	12.1	12.5	13.5	55.2
	Employee	-	-	2.3	2.1	2.3	2.4	2.4	2.3	2.2	2.5	8.7
	Employer	-	-	9.3	8.4	8.3	8.9	8.4	8.4	8.8	9.2	-1.1
	3.Payroll tax	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	-50.0
	4.Property tax	1.8	1.5	0.8	1.1	0.8	0.9	2.3	2.0	2.0	1.9	5.6
	5.Goods & service tax	10.1	9.9	7.4	7.9	8.5	10.6	10.9	11.8	10.8	10.6	5.0
	General consumption tax	3.3	3.4	3.6	4.6	4.9	5.6	5.5	6.5	6.0	6.0	81.8
	Special consumption tax	6.2	6.0	3.5	2.9	3.1	4.0	4.5	4.1	3.8	3.5	-43.5
	6.Other taxes	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.4	2.3	666.7
	Portugal	1.Income tax	3.9	4.3	3.3	4.4	6.3	6.9	7.7	9.2	7.9	9.3

A Study on the Relation Between Welfare Level and Tax Structure

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	Personal income tax	-	-	-	-	-	4.3	5.4	5.5	5.2	5.6	30.2
	Corporate income tax	-	-	-	-	-	2.1	2.3	3.7	2.7	3.6	71.4
	2.Social security contributions	3.5	4.3	6.6	6.6	6.3	7.3	9.4	9.9	11.0	11.5	228.6
	Employee	1.4	1.6	2.5	2.5	2.5	2.7	3.0	3.1	3.4	3.4	142.9
	Employer	2.1	2.6	4.0	3.9	3.6	4.4	6.0	6.4	7.1	7.5	257.1
	3.Payroll tax	0.1	0.2	0.5	0.6	0.6	0.0	0.1	0.0	0.0	0.0	0.0
	4.Property tax	0.8	0.7	0.5	0.3	0.5	0.7	0.9	1.2	1.2	1.3	62.5
	5.Goods & service tax	7.6	8.4	8.2	10.3	10.7	11.9	12.6	12.2	13.4	12.9	69.7
	General consumption tax	0.0	1.5	2.1	3.6	3.1	5.3	6.9	7.7	8.5	8.4	460.0
	Special consumption tax	7.0	6.5	5.5	6.4	7.3	6.4	5.5	4.3	4.7	4.3	-38.6
	6.Other taxes	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.2	100.0
	Greece	1.Income tax	1.6	2.4	2.6	4.2	4.5	5.2	6.4	9.3	8.0	7.3
Personal income tax		1.2	1.9	1.7	3.2	3.5	3.7	3.5	5.0	4.7	4.8	300.0
Corporate income tax		0.3	0.3	0.7	0.8	0.7	1.4	1.8	4.1	3.3	2.5	733.3
2.Social security contributions		5.6	6.0	5.7	7.1	9.1	7.9	9.4	10.5	11.2	12.2	117.9
Employee		2.3	2.6	2.4	3.1	4.0	4.0	3.8	4.1	4.4	4.7	104.3
Employer		2.2	2.3	2.4	3.1	3.8	3.9	4.3	4.9	5.1	5.7	159.1
3.Payroll tax		0.1	0.1	0.2	0.4	0.4	0.2	0.0	0.0	0.0	0.0	100.0
4.Property tax		1.7	1.8	1.9	1.0	0.7	1.2	1.2	2.1	1.3	1.5	-11.8
5.Goods & service tax		8.7	9.6	9.1	8.9	10.9	11.7	11.9	12.0	11.0	11.4	31.0
General consumption tax		1.8	3.4	3.6	2.8	4.4	6.9	6.6	7.4	7.1	7.6	322.2
Special consumption tax		6.0	5.5	4.6	5.4	5.3	4.1	4.7	3.4	3.0	2.8	-53.3
6.Other taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	1.Income tax	8.0	9.4	9.3	11.6	12.4	14.5	10.2	9.4	9.3	9.5	18.8
	Personal income tax	3.9	4.2	5.0	6.1	6.7	8.1	6.0	5.7	5.0	5.6	43.6
	Corporate income tax	4.0	5.2	4.3	5.5	5.7	6.5	4.3	3.7	4.3	3.9	-2.5
	2.Social security contributions	4.0	4.4	6.0	7.3	8.2	7.7	9.0	9.5	10.1	10.9	172.5
	Employee	1.3	1.7	2.2	2.6	2.9	3.1	3.7	4.0	4.4	4.8	269.2
	Employer	1.7	2.3	3.2	3.7	4.2	3.7	4.3	4.4	4.6	5.0	194.1
	3.Payroll tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.Property tax	1.5	1.5	1.9	2.1	2.6	2.7	3.3	2.8	2.6	2.7	80.0
	5.Goods & service tax	4.8	4.4	3.6	4.1	3.8	4.0	4.2	5.2	5.3	5.1	6.3
	General consumption tax	0.0	0.0	0.0	0.0	0.0	1.3	1.5	2.4	2.6	2.5	92.3
	Special consumption tax	4.5	4.1	3.1	3.6	3.3	2.2	2.2	2.1	2.1	2.0	-55.6
	6.Other taxes	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Korea	1.Income tax	-	-	3.6	4.4	4.2	6.4	6.0	6.5	7.0	8.2	127.8
	Personal income tax	-	-	1.3	2.0	2.2	3.9	3.6	3.3	3.2	4.0	207.7
	Corporate income tax	-	-	1.3	1.9	1.8	2.5	2.3	3.2	3.8	4.2	223.1
	2.Social security contributions	-	-	0.1	0.2	0.2	2.0	2.4	3.8	5.1	5.8	5700.0
	Employee	-	-	0.0	0.0	0.0	0.8	1.1	1.4	2.0	2.4	200.0
	Employer	-	-	0.1	0.2	0.2	0.9	1.0	1.6	2.1	2.6	2500.0
	3.Payroll tax	-	-	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
	4.Property tax	-	-	1.4	1.4	1.5	2.3	2.8	2.8	2.9	3.2	128.6
	5.Goods & service tax	-	-	9.1	10.7	9.6	8.6	8.2	8.7	8.2	8.4	-7.7
	General consumption tax	-	-	1.9	3.8	3.4	3.6	3.6	3.8	4.2	4.3	126.3
	Special consumption tax	-	-	7.1	6.8	6.0	4.7	4.1	4.4	3.8	3.9	-45.1

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
	6.Other taxes	-	-	0.6	0.4	0.5	0.1	0.6	0.8	0.8	0.9	50.0
	1.Income tax	9.3	10.7	11.3	12.2	12.7	13.4	13.0	14.5	13.9	13.9	49.5
	Personal income tax	7.4	8.8	9.5	10.1	10.3	10.6	10.2	10.4	9.9	10.0	35.1
	Corporate income tax	2.2	2.2	2.1	2.4	2.7	2.7	2.6	3.9	3.8	3.8	72.7
	2.Social security contributions	5.2	6.1	7.5	8.4	9.1	9.4	10.0	9.8	9.8	10.0	92.3
	Employee	1.7	2.0	2.3	2.5	2.9	3.1	3.5	3.3	3.2	3.3	94.1
	Employer	2.9	3.6	4.8	5.4	5.5	5.6	5.6	5.6	5.7	5.8	100.0
Average	3.Payroll tax	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.6	50.0
	4.Property tax	1.9	1.8	1.7	1.6	1.7	1.9	2.0	2.1	2.2	2.1	10.5
	5.Goods & service tax	9.7	10.1	9.3	10.0	10.7	10.6	10.9	10.9	10.7	10.2	5.2
	General consumption tax	3.7	4.4	4.4	5.0	5.4	5.9	6.1	6.5	6.5	6.4	73.0
	Special consumption tax	5.5	5.1	4.4	4.5	4.7	4.1	4.1	3.7	3.5	3.2	-41.8
	6.Other taxes	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	200.0

Note: In case the value is 0, the value of the closest year, which is not 0, was used for calculation.

〈Sub-table 4〉 Changes in Direct Tax and Indirect Tax of OECD Major States  
(% of GDP)

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Sweden	Direct tax	22.9	26.8	29.4	34.0	33.0	37.8	33.0	36.3	33.6	29.3	27.9
	Indirect tax	9.8	10.1	9.4	10.5	12.1	12.5	13.1	12.3	12.4	12.3	25.5
Finland	Direct tax	15.9	17.6	24.0	23.0	26.0	29.4	31.6	33.4	30.0	30.0	88.7
	Indirect tax	12.7	12.3	11.6	12.5	13.3	14.1	13.7	13.4	13.4	12.6	-0.8
Norway	Direct tax	17.3	19.6	24.1	27.4	26.6	26.4	25.1	29.1	31.4	31.7	83.2
	Indirect tax	11.8	14.3	14.3	14.6	15.5	14.0	15.0	12.5	11.3	10.3	-12.7
Denmark	Direct tax	17.6	23.4	25.2	26.9	28.9	29.4	31.3	32.2	31.8	31.6	79.5
	Indirect tax	11.7	14.1	12.4	15.4	15.3	14.7	15.0	15.0	15.4	14.8	26.5
Germany	Direct tax	21.0	21.3	24.8	26.5	26.8	25.5	26.8	26.6	24.5	26.2	24.8
	Indirect tax	9.8	9.5	8.7	9.4	8.9	9.0	10.0	10.1	9.7	10.2	4.1
France	Direct tax	18.5	19.8	21.7	25.7	27.8	27.9	28.3	30.1	30.0	29.8	61.1
	Indirect tax	12.8	12.7	11.5	11.8	12.3	11.5	11.4	11.1	10.8	10.3	-19.5
Belgium	Direct tax	19.2	21.7	28.6	30.0	33.0	30.8	32.3	32.9	32.8	32.9	71.4
	Indirect tax	10.6	11.7	10.3	10.7	10.6	10.5	10.4	10.5	10.5	10.1	-4.7
Austria	Direct tax	18.4	18.3	20.7	23.5	24.7	23.8	25.5	26.9	26.7	27.1	47.3
	Indirect tax	12.4	12.3	12.4	11.7	12.6	11.8	11.2	11.6	11.4	10.9	-12.1
Netherlands	Direct tax	23.2	25.6	30.8	32.0	31.4	31.4	30.0	27.5	25.8	26.7	15.1
	Indirect tax	8.9	9.3	9.1	9.9	9.9	10.3	10.2	10.4	11.1	10.6	19.1
U.K.	Direct tax	20.5	24.4	26.7	23.1	25.3	22.9	22.0	24.5	24.7	25.2	22.9
	Indirect tax	9.5	9.8	8.3	9.7	11.0	10.4	11.4	11.1	10.4	9.8	3.2
U.S.	Direct tax	19.0	21.6	20.6	21.7	20.7	22.6	22.8	24.8	22.3	21.5	13.2
	Indirect tax	4.9	4.7	4.4	4.0	4.2	4.1	4.3	4.1	4.0	3.7	-24.5
Canada	Direct tax	14.7	20.4	21.1	20.2	21.5	25.1	25.0	25.7	23.7	23.5	59.9
	Indirect tax	8.9	8.5	8.3	7.6	8.5	8.8	8.5	8.1	7.9	7.1	-20.2
Australia	Direct tax	12.7	13.7	16.3	16.6	17.2	18.3	18.0	20.2	20.2	18.3	44.1
	Indirect tax	6.1	5.8	6.5	7.2	7.9	6.5	6.5	7.9	7.6	6.8	11.5
Spain	Direct tax	8.5	10.1	13.9	17.7	19.6	23.2	22.7	23.5	25.3	24.3	185.9
	Indirect tax	6.0	5.7	4.4	4.7	7.6	8.6	8.4	9.3	9.2	7.8	30.0
Italy	Direct tax	15.1	15.7	17.9	21.6	24.6	27.0	28.8	27.4	27.8	30.7	103.3
	Indirect tax	9.4	9.3	7.2	7.5	7.9	9.5	10.0	10.6	9.7	9.5	1.1
Portugal	Direct tax	4.2	5.0	7.1	6.9	6.8	14.4	18.0	20.3	20.1	22.0	423.8
	Indirect tax	7.0	8.0	7.7	10.0	10.3	11.7	12.4	12.0	13.1	12.6	80.0
Greece	Direct tax	8.9	10.1	10.0	12.1	14.0	14.2	15.8	21.7	20.5	21.0	136.0
	Indirect tax	7.8	8.8	8.2	8.2	9.7	11.0	11.4	10.8	10.0	10.4	33.3
Japan	Direct tax	13.4	15.2	17.2	21.0	23.2	24.9	22.5	21.7	22.0	23.0	71.6
	Indirect tax	4.5	4.1	3.1	3.6	3.3	3.5	3.7	4.6	4.7	4.5	0.0
Korea	Direct tax	-	-	4.2	5.4	5.7	10.6	11.2	13.1	14.9	17.1	307.1
	Indirect tax	-	-	9.0	10.5	9.4	8.4	7.7	8.3	8.0	8.1	-10.0
Average	Direct tax	16.2	18.3	20.2	21.9	23.0	24.5	24.8	26.2	25.7	25.9	59.9
	Indirect tax	9.1	9.5	8.8	9.4	10.0	10.0	10.2	10.2	10.0	9.6	5.5

Note: In case the value is 0, the value of the closest year, which is not 0, was used for calculation.



〈Sub-table 5〉 Changes in Progressive tax and Regressive tax of Major OECD States (% of GDP)

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Sweden	Progressive tax	18.9	21.1	21.3	20.6	21.1	23.6	19.9	22.8	20.6	17.9	-5.3
	Regressive tax	13.9	15.7	17.4	23.9	23.9	26.8	26.3	25.9	25.4	23.8	71.2
Finland	Progressive tax	13.8	14.8	16.5	14.7	17.3	18.2	17.5	21.5	18.0	17.9	29.7
	Regressive tax	14.8	15.2	19.0	20.9	22.0	25.3	27.7	25.3	25.4	24.7	66.9
Norway	Progressive tax	13.8	14.1	14.4	18.5	17.8	15.6	15.5	20.2	22.5	22.8	65.2
	Regressive tax	15.4	19.9	24.1	23.5	24.4	24.7	24.6	21.5	20.2	19.2	24.7
Denmark	Progressive tax	16.4	22.2	25.0	26.3	27.6	28.4	30.2	30.4	30.7	30.6	86.6
	Regressive tax	12.8	15.3	12.6	15.9	16.7	15.6	16.0	16.8	16.5	15.7	22.7
Germany	Progressive tax	12.5	11.7	13.1	14.0	13.6	12.4	12.3	12.0	10.6	12.3	-1.6
	Regressive tax	18.3	19.0	20.4	21.9	22.0	22.0	24.5	24.6	23.5	24.1	31.7
France	Progressive tax	6.9	7.4	7.4	8.6	9.3	9.4	9.9	14.1	13.8	13.8	100.0
	Regressive tax	24.4	25.0	25.8	29.0	30.8	30.0	29.9	27.1	27.1	26.4	8.2
Belgium	Progressive tax	9.5	12.0	16.7	18.1	19.0	16.9	18.0	19.1	19.2	19.0	100.0
	Regressive tax	20.4	21.4	22.2	22.6	24.6	24.4	24.7	24.3	24.1	24.1	18.1
Austria	Progressive tax	9.9	9.7	10.6	11.5	11.7	10.8	10.6	12.1	12.1	12.9	30.3
	Regressive tax	20.8	20.9	22.5	23.7	25.6	24.9	26.1	26.4	26.0	25.2	21.2
Netherlands	Progressive tax	13.1	13.1	15.1	15.6	12.6	15.4	12.7	12.1	12.7	12.3	-6.1
	Regressive tax	19.0	21.8	24.8	26.3	28.7	26.3	27.6	25.8	24.1	25.1	32.1
U.K.	Progressive tax	15.8	19.3	20.6	17.3	18.7	16.8	16.0	18.4	18.0	18.4	16.5
	Regressive tax	14.1	14.9	14.4	15.5	17.5	16.5	17.5	17.3	17.1	16.6	17.7
US	Progressive tax	15.8	17.3	15.3	16.0	14.3	15.7	15.9	17.9	15.7	14.9	-5.7
	Regressive tax	8.2	9.1	9.6	9.8	10.6	11.0	11.3	11.0	10.6	10.3	25.6
Canada	Progressive tax	13.3	17.4	17.9	17.0	17.2	20.8	20.0	20.9	18.7	18.8	41.4
	Regressive tax	10.3	11.5	11.5	10.9	12.9	13.1	13.5	13.0	12.9	11.8	14.6
Australia	Progressive tax	12.7	13.7	16.3	16.6	17.2	18.3	18.0	20.2	20.2	18.3	44.1
	Regressive tax	6.1	5.8	6.5	7.2	7.9	6.5	6.5	7.9	7.6	6.8	11.5
Spain	Progressive tax	4.4	4.2	5.1	6.8	8.4	11.7	11.1	11.6	13.3	12.2	177.3
	Regressive tax	10.1	11.6	13.2	15.6	18.8	20.1	20.0	21.2	21.2	19.9	97.0
Italy	Progressive tax	6.4	6.0	6.3	10.3	12.9	14.6	16.2	15.4	15.2	17.2	168.8
	Regressive tax	18.1	19.0	18.8	18.8	19.6	22.0	22.6	22.6	22.3	23.0	27.1
Portugal	Progressive tax	0.8	0.7	0.5	0.3	0.5	7.1	8.6	10.3	9.1	10.5	1212.5
	Regressive tax	10.4	12.2	14.3	16.5	16.7	19.0	21.8	21.9	24.2	24.2	132.7
Greece	Progressive tax	3.2	4.1	4.3	5.0	4.9	6.3	6.5	11.2	9.2	8.7	171.9
	Regressive tax	13.5	14.8	13.9	15.3	18.8	18.9	20.7	21.3	21.2	22.6	67.4
Japan	Progressive tax	9.4	10.8	11.2	13.6	15.0	17.3	13.5	12.2	11.9	12.1	28.7
	Regressive tax	8.5	8.5	9.2	10.9	11.5	11.1	12.6	14.1	14.8	15.3	80.0
Korea	Progressive tax	-	-	4.0	5.2	5.4	8.7	8.7	9.3	9.8	11.4	185.0
	Regressive tax	-	-	9.1	10.7	9.6	10.3	10.1	12.1	13.0	13.9	52.7
Average	Progressive tax	10.9	12.2	12.7	13.5	13.9	15.2	14.8	16.4	15.9	15.9	45.9
	Regressive tax	14.4	15.7	16.3	17.8	19.1	19.4	20.2	20.0	19.9	19.6	36.1

Note: In case the value is 0, the value of the closest year, which is not 0, was used for calculation.

〈Sub-table 6〉 Changes in Corporate Tax and Non-Corporate Tax of OECD Major States (% of GDP)

State	Year	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008	Rate of change
Sweden	Corporate tax	2	1.7	1.8	1.1	1.7	1.6	2.8	3.9	3.7	3	50
	Non-corporate tax	31.3	36.3	39.7	45.4	45.8	50.5	44.8	47.5	45	43.2	38.0
Finland	Corporate tax	2.5	1.7	1.7	1.2	1.4	2	2.3	5.9	3.3	3.5	40.0
	Non-corporate tax	27.9	29.9	35	34.7	38.5	41.8	43.4	41.2	40.5	39.5	41.6
Norway	Corporate tax	1.1	1.1	1.1	5.7	7.3	3.7	3.8	8.9	11.8	12.5	1036.4
	Non-corporate tax	28.4	33.3	38	36.8	35.3	37.3	37.1	33.7	31.8	30.1	6.0
Denmark	Corporate tax	1.4	1	1.2	1.4	2.2	1.7	2.3	3.3	3.9	3.4	142.9
	Non-corporate tax	28.6	37.3	37.1	41.7	42.9	43.3	44.9	45	44.4	44	53.8
Germany	Corporate tax	2.5	1.8	1.5	2	2.2	1.7	1	1.8	1.7	1.9	-24.0
	Non-corporate tax	29.1	29.8	32.8	34.5	33.9	33.1	36.1	35.1	33	34.9	19.9
France	Corporate tax	1.8	2.1	1.8	2.1	1.9	2.2	2.1	3.1	2.4	2.9	61.1
	Non-corporate tax	32.3	32	33.5	38	40.9	39.8	40.9	41.2	41.3	40.2	24.5
Belgium	Corporate tax	1.9	2.2	2.7	1.9	2.2	2	2.4	3.2	3.3	3.3	73.7
	Non-corporate tax	29	31.6	36.7	39.3	42.2	39.8	41.2	41.2	40.8	40.4	39.3
Austria	Corporate tax	1.8	1.5	1.6	1.4	1.4	1.4	1.4	2	2.2	2.5	38.9
	Non-corporate tax	32	32.3	34.8	37.3	39.4	37.8	39.2	40.3	39.6	39.4	23.1
Netherlands	Corporate tax	2.6	2.4	3.1	2.8	3	3.2	3.1	4	3.8	3.2	23.1
	Non-corporate tax	30.1	33.2	37.5	40	39.5	39.6	38.4	35.2	34.4	35.6	18.3
U.K.	Corporate tax	1.3	3.2	2.2	2.9	4.7	3.5	2.8	3.5	3.3	3.6	176.9
	Non-corporate tax	29.3	33.5	33.2	31.9	32.3	31.9	31.3	32.7	32.2	32	9.2
U.S.	Corporate tax	4	3.6	2.9	2.8	1.9	2.4	2.9	2.6	3.1	1.8	-55.0
	Non-corporate tax	20.6	23.4	22.7	23.6	23.6	24.9	24.9	26.9	23.9	24.2	17.5
Canada	Corporate tax	3.8	3.5	4.3	3.6	2.7	2.5	2.9	4.4	3.5	3.3	-13.2
	Non-corporate tax	21.6	27.1	27.3	27.2	29.6	33.2	32.4	30.9	29.6	28.5	31.9
Australia	Corporate tax	3.3	3.6	3.1	3.2	2.6	3.9	4.1	6.1	5.8	5.9	78.8
	Non-corporate tax	17	17.4	22.1	22.8	25.1	23.8	23.9	24.2	24	21.2	24.7
Spain	Corporate tax	1.4	1.3	1.3	1.1	1.4	2.9	1.7	3.1	3.9	2.8	100.0
	Non-corporate tax	13.2	14.5	17.2	21.4	26	29.6	30.4	30.7	31.5	29.9	126.5
Italy	Corporate tax	1.8	1.7	1.6	2.3	3.1	3.8	3.5	2.9	2.8	3.7	105.6
	Non-corporate tax	23.7	23.9	23.6	27.4	30.2	33.9	36.3	38.7	38.1	39.9	68.4
Portugal	Corporate tax	-	-	-	-	-	2.1	2.3	3.7	2.7	3.6	71.4
	Non-corporate tax	12	13.6	15.9	17.8	18.2	24.3	28.5	29	30.9	31.5	162.5
Greece	Corporate tax	0.3	0.3	0.7	0.8	0.7	1.4	1.8	4.1	3.3	2.5	733.3
	Non-corporate tax	17.3	19.4	18.6	20.6	24.6	24.7	26	29.6	28.2	29.9	72.8
Japan	Corporate tax	4	5.2	4.3	5.5	5.7	6.5	4.3	3.7	4.3	3.9	-2.5
	Non-corporate tax	14.2	14.5	16.5	19.7	21.4	22.6	22.6	23.3	23.1	24.4	71.8
Korea	Corporate tax	-	-	1.3	1.9	1.8	2.5	2.3	3.2	3.8	4.2	223.1
	Non-corporate tax	0	0	12.5	14.8	14.1	17	17.7	19.4	20.3	22.4	79.2
Average	Corporate tax	2.2	2.2	2.1	2.4	2.7	2.7	2.6	3.9	3.8	3.8	72.7
	Non-corporate tax	24.7	27.3	28.7	30.7	32.4	33.1	33.7	33.9	33.3	33.2	34.4

Note: In case the value is 0, the value of the closest year, which is not 0, was used for calculation.