

A Work Project, presented as part of the requirements for the Award of a Master's degree in  
Economics from the Nova School of Business and Economics.

QUANTIFYING THE UNIVERSALISM OF WELFARE STATES: THE CASE OF EAST  
ASIAN DEMOCRACIES

RAQUEL SOBRAL TOMÉ  
CAMPOS LOPES

Work project carried out under the supervision of:

Luciano Amaral

20/12/2023

## **Abstract**

This study conducts a comparative analysis of welfare state universalism in three East Asian democracies - Japan, South Korea, and Taiwan - using the novel Quality of Welfare State Index proposed by Luciano Amaral and Kleoniki Alexopoulou. The literature posits various welfare state regime models for East Asian nations, prompting an exploration of unique characteristics within this group. Japan emerges as the most universal, followed by Taiwan, whereas South Korea shows markedly lower values. The divergence in their universalism trajectories challenges proposals for a single welfare state regime to characterize these countries.

## **Keywords**

Public Policy; Social Protection; Welfare; East Asia; Universalism

## **Acknowledgements**

I extend my gratitude to Professor Luciano Amaral for his insightful guidance, and to José Allegro and Vittorio Soverini for their indispensable collaboration. Special thanks to Beatriz for her unwavering love and support, you have stood by me through thick and thin and I could not have done it without you. To Lacy, for bringing joy and light to my days. To my mother for her encouragement and constant belief in my potential, and to the rest of my family and friends for their valuable contributions to my journey.

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

## **Introduction**

The landscape of welfare states has been extensively studied and classified within the Western context, primarily relying on Esping-Andersen's (1990) typology, which categorizes nations into liberal, corporatist, and social democratic welfare state regimes. However, the application of this typology to East Asian countries has proven challenging, giving rise to debates on the need for a distinct classification (Aspalter 2001; Holiday 2000; Jones 1993; Kwon 2005). Despite these discussions, the lack of a quantitative comparative analysis has contributed to an absence of consensus on the categorization of East Asian nations and hindered the robustness and applicability of new regime approaches.

Hence, the present work aims to extend the use of the Quality of Welfare State Index (QWEST) with the objective of studying the degree of universalism in the welfare states of three East Asian democracies: Taiwan, South Korea, and Japan. Introduced in an unpublished paper titled “The QWEST of the Welfare State: An Index to Measure the Universality of Welfare States”, QWEST is a composite index developed by Luciano Amaral and Kleoniki Alexopoulou, which aims to provide a comprehensive tool to measure welfare state universalism across countries.

In this study, the QWEST index will be applied to South Korea, Japan, and Taiwan, alongside a selection of Western countries, to trace the evolution of their welfare states from 1990 to 2019. By examining the QWEST scores and complementing them with the analysis of the individual indicators that constitute the index, this research aims to provide insights into the unique trajectories of welfare state development in East Asia and contribute to the ongoing discourse on the categorization and evolution of welfare state regimes in this region.

In the following section, this work will delve into the prevalent literature surrounding welfare regime types and the various classifications proposed for East Asian nations, highlighting their inherent limitations. Subsequently, the QWEST index will be introduced,

along with a clarification of the concept of universalism. The ensuing section will provide a comprehensive breakdown of the index's construction, outlining its dimensions and addressing the technical considerations involved in crafting a composite index. The data section will detail data sources and address issues of missing values. Subsequently, the results section will examine QWEST scores for each East Asian country and for selected groups representing different welfare state regimes, providing a comparative analysis of welfare state development, and investigating the possibility of aggregating Japan, South Korea and Taiwan into a distinct group. Moreover, a methodological note will be made to account for some unusual results. Lastly, the conclusion will summarize the main findings, discuss implications for the understanding of East Asian welfare states, and suggest avenues for future research.

### **1. Welfare Regime Types and the Classification of East Asian Nations**

In his seminal work, Esping-Andersen (1990) used a decommodification index to classify 18 OECD countries within three welfare state regime types: liberal, corporatist and social democratic. Decommodification is understood as the extent to which people are able to preserve an acceptable standard of living without relying on market participation, and a higher degree of decommodification is associated with a more universal welfare state (Esping-Andersen 1990, 37). The liberal welfare state regime, typical of Anglo-Saxon nations, offers a low degree of decommodification, the state provides minimal social protection, focusing on low-income individuals (Esping-Andersen 1990, 27). In the corporatist welfare state regime, observed in Continental Europe, social support is restricted, not on income, but on previous contributions to social programs (Esping-Andersen 1990, 27). In opposition, the social democratic welfare state regime, composed mostly by Nordic countries, is characterized by a high degree of de-commodification, with social support being extended to a broader range of the population, emphasizing equality and universality of provision (Esping-Andersen 1990, 27). The addition of groups and reclassification of countries within groups has been extensively argued (Bonoli 1997; Castles and Mitchell 1993; Ferrera 1996; Jones 1993; Leibfried 1992).

Ferrera (1996) and Bonoli (1997) propose the Southern European group, comprising Italy, classified by Esping-Andersen (1990) as a corporatist welfare state regime, Greece, Portugal, and Spain. Despite similarities in access limitations with the corporatist group, the key divergence lies in the fact that segments of the population under long-term contracts and unionization receive considerably more generous benefits compared to those with less secure or precarious employment conditions (Andreotti et al. 2001; Ferrera 1996).

Concerning East Asian countries, Japan was the only one considered by Esping-Andersen (1990). Initially classifying it as a corporatist welfare state regime type, this was later revisited by the author, and Japan was ultimately considered a hybrid of the corporatist and liberal welfare state regimes (Esping-Andersen 1997, 187). Furthermore, this reevaluation prompted the question of whether Japan, and possibly other East Asian countries could form a fourth welfare state regime type (Esping-Andersen 1997, 187).

Attempts to categorize East Asian countries within Esping-Andersen's typology followed, with Ku (1997) suggesting the applicability of the corporatist regime and Kwon (1997, 477) also identifying it as the closest match. However, Kwon (1997, 478) acknowledged that the disparities between East Asian welfare states and conventional corporatist welfare states are too great, making it challenging to place the former within this regime.

Other authors are more inclined to propose a new welfare regime type to characterize East Asian nations, with the focus ranging from cultural aspects to the shared emphasis on economic development characteristic of this group. The “Confucian welfare state” was proposed, focusing on the relevance of Confucianism as an East Asian cultural value, implying that the responsibility of social support was informally delegated to families, and local communities, justifying lower state intervention (Jones 1993, 213; 201–202). Holiday (2000) proposes a “productivist welfare regime” to characterize the welfare states of Japan, Hong

Kong, Singapore, South Korea and Taiwan. The main idea is that social policies are subordinate to the overarching goal of economic development. In a similar line, Kwon (2005) studies South Korea and Taiwan, characterizing them as “developmental welfare states”. According to the author, the prioritization of economic growth resulted in social programs being utilized as tools for development, with access to protection limited to specific groups (Kwon 2005, 478). Aspalter (2001) points to anti-welfare conservative social politics as the differentiating characteristic of East Asian welfare states. Nam (2020) highlights the common thread among these theories, they depict East Asian welfare states with limited public service provisions, minimal government intervention, and social welfare investment, while also highlighting the crucial role of family and voluntary sectors in establishing social safety nets.

A notable limitation of these new regime types becomes apparent, as highlighted by Ku (2007): the absence of a longitudinal dataset hampers the ability to conduct comparative analyzes of East Asian countries. The robustness and applicability of Esping-Andersen's (1990) results stem from their foundation in empirical data. Without a similar empirical approach applied to these new regime types, confidently categorizing East Asian countries within a specific regime type or studying transitions to new welfare state regimes becomes challenging (Ku 2007). To address this, Lee and Ku (2007) performed a cluster analysis using 15 indicators across 20 countries in two separate periods, 1980's and 1990's, to test the developmental hypothesis. Their results indicated that South Korea and Taiwan belong to a distinct group, outside the scope of the welfare regime types defined by Esping-Andersen (1990), while Japan sat between the corporatist group (Austria, Italy, France and Germany) and the East Asian developmental group (Taiwan and South Korea). Later, noting the lack of empirical investigation on the topic, Kuypers (2014) performs a fuzzy set ideal type analysis to examine the hypothesis suggesting the existence of a unique welfare regime characterizing East Asian countries. The findings support the assertion of such a regime.

Ultimately, a consensus on the evolution and categorization of East Asian countries' welfare state regimes remains elusive. Some scholars suggest a persistence of the productivist/developmental nature (Hwang 2012; Yang 2013), while others observe an expansion of welfare policies, indicating a shift toward more developed welfare regime types (Kim and Shi 2013; Lin and Wong 2013). Mixed opinions are also present, with Abrahamson (2017, 100) identifying Japan as a corporatist, also known as conservative, welfare regime, while Taiwan and South Korea are said to be within a Confucian welfare regime. A potential shift from Confucian to the liberal regime type in South Korea is also posited (Abrahamson 2017, 100).

## **2. A Measure of Welfare State Universalism**

Aiming to enhance precision in the definition and measurement of welfare state universalism, Luciano Amaral and Kleoniki Alexopoulou propose a new measure in the form of a composite index. This approach is detailed in an unpublished paper titled “The QWEST of the Welfare State: An Index to Measure the Universality of Welfare States”, obtained through personal communication. The work analyzes various sources (Brady and Bostic 2015; Esping-Andersen 1990; Korpi and Palme 1998) in search of a definition of universalism to serve as guidance in the construction of an index to measure the degree of universalism across welfare states (Amaral and Alexopoulou 2022).

Ultimately, Amaral and Alexopoulou (2022) focus on the concept proposed by Blomqvist and Palme (2020), in which universalism comprises four dimensions: inclusion, financing, provision and benefits. These dimensions assess the accessibility of social programs, whether they are open to all or only to specific groups; the financing mechanisms, if they are public or private; the providers, either public, private, or voluntary entities; and the adequacy of benefits, evaluating whether they suffice to sustain livelihoods or necessitate supplementation through private alternatives (Blomqvist and Palme 2020, 116). Thus, social programs are not understood as either universal or not, they are seen in a gradient, as more or

less universal (Blomqvist and Palme 2020, 116). Universalism in Amaral and Alexopoulou (2022) is thus defined based on the level of conditionality associated with social benefits. When access is contingent upon means-tests, prior contributions, or restrictive entitlement rules, it results in a less universal welfare state. Conversely, if access to social benefits is extended to a broad segment of the population solely based on the payment of taxes, it signifies a lower level of conditionality, and a more universal welfare state (Amaral and Alexopoulou 2022).

To substantiate the need for a novel measurement, Amaral and Alexopoulou (2022) review prior studies which measured universalism and highlight their limitations. They mention Esping-Andersen (1990) and a later refinement of the same measurement in Scruggs and Allan (2006), noting that this measurement only considered entitlement rules and was confined to the year 1980 (Amaral and Alexopoulou 2022). Korpi and Palme (1998), focusing on 1985, don't provide clear explanations for the computations needed to reach the different categories presented, and refer only to two variables which the authors consider relevant (size of social public spending and relevance of means-testing) (Amaral and Alexopoulou 2022). Jacques and Noël (2018) propose an index with similar characteristics to the ones idealized by the authors, however, the technique used, factor analysis, is limitative when analyzing variables measured in different ways (Amaral and Alexopoulou 2022). Furthermore, Jacques and Noël (2018) only utilize two variables, which are not enough to cover all the dimensions that Amaral and Alexopoulou (2022) consider relevant. Scruggs (2014) computes a "generosity index", which still only covers one dimension deemed relevant by Amaral and Alexopoulou (2022). Additionally, the data is normalized with the use of z-scores, making it not ideal to capture their evolution through time. Although Scruggs (2014) uses 1980 as a base year to control for this issue, the choice of year is arbitrary, posing other problems for the calculation (Amaral and Alexopoulou 2022).

As previously noted, quantitative comparative analysis seem to be scarce in the

attempts to understand the evolution of East Asian welfare states. Employing QWEST to analyze countries in this region would not only help address this literature gap but also broaden the application of the index, thereby contributing to its robustness as a measure of welfare state universalism. The emphasis that QWEST places on indicators related to the design of the welfare system, rather than the outcome of welfare measures, makes it particularly suitable for examining the categorization of nations into different welfare state regimes.

### **3. The Quality of Welfare State Index (QWEST)**

It is pertinent to detail the dimensions of the index and how they are grounded in the literature above. QWEST encompasses seven dimensions intricately tied to the concept of universalism, as previously defined: the size of social spending, the proportion of social benefits subject to means-testing, the proportion of social spending financed by taxes, rules of entitlement to social benefits (eligibility criteria, replacement rates, benefit duration, and waiting periods for key social programs such as unemployment insurance, sickness insurance, and pensions), the proportion of private spending in overall health spending, the proportion of private spending in overall spending on pensions, and the proportion of the population covered by existing unemployment insurance, sickness insurance, and pension programs.

The first dimension (size of social spending) is measured by the ratio of social spending to GDP and is used in five-year averages to smoothen cycles (Amaral and Alexopoulou 2022). This is a key indicator, and it can offer insights into the extent and generosity of welfare expenditure. Furthermore, this dimension has the potential to highlight pronounced disparities between East Asian and Western nations, since the former are characterized by notably lower levels of social spending.

The second dimension (the proportion of social benefits subject to means-testing) is measured as the ratio between social spending in programs subject to means-testing and overall social spending by the government (Amaral and Alexopoulou 2022). This measure captures a

facet of conditionality in accessing social welfare benefits. As highlighted by Esping-Andersen (1990), conditioning benefits on income is a common practice of liberal welfare state regimes.

The third dimension (the proportion of social spending financed by taxes) is measured by the proportion of social spending financed by taxes in overall social spending (Amaral and Alexopoulou 2022). As mentioned earlier, access to social benefits conditioned only on the payment of taxes signifies the lowest degree of conditionality (Amaral and Alexopoulou 2022). Consequently, a substantial reliance on tax financing for social benefits implies a heightened degree of universalism (Amaral and Alexopoulou 2022). The elimination of access conditions, such as contributions to specific programs, suggests that a larger portion of the population can benefit from these provisions. Therefore, a high proportion of tax financing of social benefits is indicative of a higher degree of welfare state universalism, as removing conditions of access means that a higher share of the population will be able to access benefits (Amaral and Alexopoulou 2022). Moreover, restricting benefits on previous contributions is common in both the corporatist and southern welfare regime types (Esping-Andersen 1990; Ferrera 1996).

The fourth dimension (the rules of entitlement to social benefits) is measured by an index that comprises measures on the eligibility criteria, replacement rates, benefit duration and waiting periods of unemployment insurance, sickness insurance, and pensions (Amaral and Alexopoulou 2022). Specifically, for unemployment insurance, the measures include: the replacement rate, i.e. the percentage of income replaced by the benefit, the amount of insurance time needed to qualify for the benefit, the duration of the benefit and the amount of waiting time to receive the benefit after becoming unemployed (Amaral and Alexopoulou 2022). In the context of sickness insurance, the selected measures are the replacement rate, the amount of insurance time needed to qualify for the benefit, the duration of the benefit and the amount of waiting time to receive the benefit after becoming sick (Amaral and Alexopoulou 2022). To analyze pensions, the measures include: the replacement rate for the minimum and standard

pension, the amount of insurance time needed to qualify for the benefit, the proportion of employee contributions to total pension contributions and the years of earnings used in the pension benefit calculation (Amaral and Alexopoulou 2022). This dimension not only examines access conditions but also addresses the generosity of benefits, two pertinent elements in the universalism definition used by Amaral and Alexopoulou (2022).

The fifth (the proportion of private spending in overall Health spending) and sixth (the proportion of private spending in overall Pensions spending) are measured by the ratio between private spending on healthcare/pensions and overall spending on each item (Amaral and Alexopoulou 2022). As detailed in the universalism definition proposed by Blomqvist and Palme (2020), it is relevant to understand to which extent people rely on the market for the provision of healthcare and pensions. A higher level of universalism is attained when there is a reduced reliance on private provision, signifying that economic constraints do not impede access to social benefits and essential public services (Amaral and Alexopoulou 2022).

The seventh dimension (the proportion of the population covered by the existing unemployment insurance, sickness insurance, and pension programs) is measured by an index comprised of the proportion of people covered by each of the social programs in overall eligible population (Amaral and Alexopoulou 2022). Even when welfare benefits are generous, their impact may be limited if they fail to encompass a significant portion of the population (Amaral and Alexopoulou 2022). As seen in Esping-Andersen (1990), social democratic welfare state regimes are typically broad in their coverage of the population, which is not the case for all other regimes. The issue of coverage seems to be particularly serious in Southern European countries, where too many social benefits are tied to long-term labor contracts and a large amount of the population works under short-term contracts or even completely outside of any contractual forms (Andreotti et al. 2001; Ferrera 1996).

As the variables used to construct the index are not in the same units, the data had to be

normalized (Mazziotta and Pareto 2013; OECD 2008). This was achieved by using the Min-Max method described below:

$$V_{ic}^t = \frac{x_{ic}^t - \min(x_i)}{\max(x_i) - \min(x_i)}$$

where  $V_{ic}^t$  is the normalised value of indicator  $i$  for country  $c$  at time  $t$ ,  $x_{ic}^t$  is the original value of indicator  $i$  for country  $c$  at time  $t$ ,  $\min(x_i)$  is the minimum value of indicator  $i$  in the sample, and  $\max(x_i)$  is the maximum value of indicator  $i$  in the sample. The values of indicators consequently become expressed in the range between 0 and 1, with 0 being the lowest possible value and 1 the highest (Amaral and Alexopoulou 2022).

As this is a composite index, the question of weighting and aggregation must be addressed (OECD 2008; Mazziotta and Pareto 2013). In this case, there is no theoretical framework to justify using different weights. This constitutes a limitation of the index, as the different dimensions must certainly have a different impact. The lack of a reasonable framework to apply such weights makes it preferable not to use them in order not to introduce unwarranted arbitrariness in the calculation of the index, although recognizing it as a limitation (Amaral and Alexopoulou 2022). As such, equal weights are used, which, in the end, amounts to computing an unweighted average (Amaral and Alexopoulou 2022).

Regarding aggregation, Amaral and Alexopoulou (2022) consider an arithmetic or a geometric average. The arithmetic mean compensates between indicators that are not substitutable, meaning that a high value in one variable can compensate for a low value in an entirely unrelated variable analyzed in the index (Mazziotta and Pareto 2013). In contrast, the geometric mean method, while addressing this compensation issue, introduces other challenges, particularly in the presence of null values and errors in the data (Mazziotta and Pareto 2013).

Amaral and Alexopoulou (2022) ultimately decide in favor of the arithmetic average, noting that their experimentation with geometric average aggregation revealed inconsistencies, likely exacerbated by the multiplicative nature of the method, which magnified issues in the

data. Furthermore, Amaral and Alexopoulou (2022) point out that it is not evident whether the variables in their index do not compensate for each other, as may be the case in other scenarios (Mazziotta and Pareto 2013). This potential compensation between variables serves as an additional argument for choosing the arithmetic average (Amaral and Alexopoulou 2022). Moreover, as will be seen in the data below, the presence of null values would undoubtedly pose challenges if the geometric average were employed for the present study. After all considerations, the resulting index is presented as follows:

$$QWEST = \frac{Spending + Means + Tax + Eligibility + PrivateH + PrivateP + Coverage}{7}$$

where *Spending* is the ratio of public social expenditure to GDP (in five-year averages), *NMeans* is the ratio of social benefits provided without means-testing in overall social benefits, *Tax* is the inverse of the ratio between social contributions and social spending, *Eligibility* is a subindex that comprises measures on the eligibility criteria, replacement rates, benefit duration and waiting periods of unemployment insurance, sickness insurance, and pensions, *PublicH* is the inverse of the proportion of private spending in overall spending on healthcare, *PublicP* is the inverse of the proportion of private spending in overall spending on pensions, and *Coverage* is a subindex measuring the proportion of the population covered by the existing systems of unemployment insurance, sickness insurance, and pensions (Amaral and Alexopoulou 2022).

It is pertinent to clarify the construction of the two subindices, *Eligibility*, and *Coverage*. Following a methodology analogous to that employed in the construction of QWEST, the values of variables incorporated into the indices undergo Min-Max normalization, and their aggregation is achieved through an arithmetic average, with equal weights attributed to each variable, which again amounts to computing an unweighted average.

## **Data**

Regarding data selection, this study focuses on the period from 1990 to 2019. Although the aim is to encompass the broadest timeframe possible, the chosen cutoff points were influenced

by data availability considerations, and the impact of Covid-19 on GDP and public expenditure, which may result in extreme values and affect the normalization process. In the literature on East Asian welfare states, the countries predominantly studied include South Korea, Japan, Taiwan, and often Singapore and Hong Kong. The decision to focus solely on South Korea, Japan, and Taiwan is primarily justified by the data provided in the Comparative Welfare Entitlements Project (CWEP) Global database, extensively used in the construction of the QWEST index, where these three countries are the only available East Asian data points (Scruggs 2022).

Moreover, to achieve meaningful comparative analysis, this study incorporates countries previously examined by Esping-Andersen (1990), and countries later considered by Ferrera (1996) to account for the southern welfare regime. These include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, New Zealand, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

For the variable *Spending*, data was extracted from the OECD Social Expenditure Database (SOCX) for Japan and South Korea, and from the Taiwan Statistical Data Book (2016), the National Accounts Yearbook (2021), and the Statistical Yearbook of the Republic of China (2022) for Taiwan. Data for *NMeans* was retrieved from the OECD SOCX database, incorporating information from the OECD SOCX country notes for Japan and South Korea, and from the Taiwan Statistical Data Book (2012) for Taiwan. Regarding *Tax*, data for Japan and South Korea was sourced from the OECD SOCX database and the general statistics database (OECD.Stat), while data for Taiwan was retrieved from the Ministry of Health and Welfare and the Bureau of Labor Insurance websites.

The CWEP Global dataset facilitated the acquisition of *Eligibility* data for all three countries (Scruggs 2022). In instances of missing data, information from Social Security Programs Throughout the World (SSPTW): Asia and the Pacific (2018) was utilized for South

Korea and Taiwan. Moreover, for Taiwan, missing pension replacement rates were computed using the formulas presented in the CWEP Codebook, and wage data was obtained from the CWEP Global dataset and the Public Finance Statistics Database of the Ministry of Finance (Scruggs 2022). Given that pension benefits were provided as lump sum payments before January 1<sup>st</sup>, 2009, in Taiwan, life expectancy data from the Human Mortality Database was utilized to estimate monthly payment amounts (Scruggs 2022).

*PublicH* data originated from OECD.Stat for Japan and South Korea, and from the Ministry of Health and Welfare website for Taiwan. Data for *PublicP*, was extracted from the OECD SOCX database for Japan and South Korea, and from the Bureau of Labor Insurance website for Taiwan. Lastly, data for *Coverage* was gathered from the CWEP Global database for Japan, South Korea and Taiwan. Supplementary data from SSPTW: Asia and the Pacific (2018) was incorporated in the cases of South Korea and Taiwan. Furthermore, considering that pensions in Taiwan were disbursed as lump sum payments until January 1<sup>st</sup>, 2009, life expectancy data from the Human Mortality Database was once again employed, this time to estimate the number of covered individuals (Scruggs 2022). Demographic data used to compute the coverage rate was retrieved from the Department of Household Registration Affairs website.

The dataset pertaining to Western countries was provided by Vittorio Soverini, a colleague engaged in the application of the QWEST index for the analysis of welfare states in those nations and was acquired through personal communication. In the case of *Spending*, *NMeans*, *Tax*, *PublicH* and *PublicP*, the data comes from Eurostat for the European countries, and from the OECD SOCX database and OECD.Stat for the non-European countries. Data used for the computation of *Eligibility* and *Coverage* was sourced from the CWEP Global database (Scruggs 2022).

It's essential to highlight the approach taken to manage missing values in the dataset. For imputing missing values, the method employed computed the growth rate over the nearest

five years and calculated an average. This average growth rate was then used to estimate the missing data. Imputation was necessary for South Korea in the *Eligibility* dimension, specifically on the replacement rates for the standard pension from 1990 to 1995. Additionally, it was used for the *Coverage* dimension, specifically in estimating pension coverage for the period between 1990 and 1993. In the case of Taiwan, the value for *PublicH* in 1991 was imputed, as were the replacement rates for sickness insurance between 2012 and 2019, used in the *Eligibility* dimension, and the values for *NMeans* between 1990-1997 and 2013-2019. While the data for the replacement rates in the minimum and standard pensions were computed for Taiwan as mentioned above, the value of net wage used in the computation was estimated for the 2012-2019 period using the same imputation method.

## **Results**

The QWEST index results, as detailed in Table 1<sup>1</sup>, provide a comprehensive perspective on welfare state universalism across the studied countries. Figure 1 illustrates the findings, categorizing countries into welfare state regimes. Each group's value is derived from averaging the values of the countries within it. Denmark, Norway, and Sweden constitute the “Social Democratic” group, the “Corporatist” group is composed of Austria, Belgium, Germany, France, the Netherlands, Finland, and Switzerland, the “Liberal” group contains Australia, Canada, Ireland, New Zealand, United Kingdom, and the United States and the “Southern” group is formed by Greece, Italy, Spain, and Portugal. Additionally, Japan, South Korea and Taiwan are grouped and labelled “East Asian”.

In accordance with the literature explored in section 1, the social democratic group, distinguished by its extensive social support, displays the highest levels of universalism throughout the whole period. In the opposite end, not accounting for the East Asian group, the liberal group, characterized by a minimal provision of social benefits, firmly maintains its

---

<sup>1</sup> All Tables and Figures are displayed in the Appendix.

position at the bottom. The corporatist and southern groups occupy different positions depending on the period considered. Initially, the corporatist group, characterized by restricting benefits based on prior contributions, is the second most universal. However, it is notably closer to the southern group than to the social democratic one. Over time, the southern group, which initially occupied the third position, approaches the levels of universalism displayed by the corporatist group, and eventually surpasses it by a considerable margin, going as far as approaching the social democratic group. In the last two years, its level of universalism is equal to the one displayed by the corporatist group.

According to the literature, the southern group is seen as less universal than the corporatist group, given that while identically restricting benefits on previous contributions, it additionally provides more generous benefits to segments of the population under more favorable employment conditions. As such, the unusual result which places the southern group at such high levels of universalism raised questions and prompted an additional analysis. To address this question, it is relevant to present the results attained by Vittorio Soverini, a colleague engaged in the application of the QWEST index exclusively to the countries in the social democratic, corporatist, southern and liberal groups, as defined above. As depicted in Figure 2, while the evolution of the groups seems similar to the one displayed in Figure 1, the southern group exhibits comparatively lower levels of universalism. Initially very close to the liberal group, it converges to the corporatist values, during the 2000s, diverging around 2011 and keeping almost constant in the last decade. In this case, it always maintains its position as the second least universal. This difference in results, caused by the introduction of the East Asian countries raises a methodological concern, which will be addressed in the section below.

While a distinct East Asian pattern seems to emerge, a closer examination of individual country results is essential to determine whether the index values are in proximity or if extremely low values in some nations are exerting a significant influence on the group.

The latter scenario appears to be the case, as illustrated in Figure 3, where South Korea exhibits the lowest values by a considerable margin. Taiwan initiates the period significantly distant from South Korea, but its descending trajectory, coupled with the improvements in universalism displayed by the latter nation, contributes to a narrowing of the gap. Japan, while closer to Taiwan, presents a notable divergence. It closely aligns with the values of the liberal group and effectively converges with the group's average in the last decade.

These values warrant a detailed analysis, and as highlighted by Amaral and Alexopoulou (2022), the QWEST index allows us to delve beyond the result displayed by the index and inspect the indicators that compose it in a more detailed fashion. This will be undertaken now, focusing on each country individually.

### **Japan**

Over the 30-year period examined, Japan's universalism score exhibited a general upward trend, punctuated by a significant dip in the late 1990s (Figure 3 and Table 1). Throughout this timeframe, Japan consistently outperformed several countries, specifically the United States, South Korea, and Taiwan. With only brief exceptions, Japan maintained a position above Switzerland, Canada, and the United Kingdom. By the mid-2000s, it surpassed the Netherlands, and in the final decade, it even exceeded Australia, hence outperforming most countries in the liberal group.

The investigation into the causes of the sharp drop in universalism in 1997 is crucial, particularly given Japan's otherwise consistent progress. Looking at unaveraged values, *Spending* followed a stable trajectory, experiencing substantial growth in the first two decades and tapering off toward the end (Table 2). *NMeans* remained almost constant, at a high value when compared to other countries (Table 3). *Tax* demonstrated overall growth with fluctuations; it peaked in 2009 and gradually decreased until the period's conclusion (Table 4). In this indicator Japan sits at the bottom half of the table, suggesting a significant degree of

conditionality in access tied to social contributions. Akin to *NMeans*, *Eligibility* remained relatively stable, with slightly more fluctuations than the former and marginal overall improvement (Table 5). *PublicH* witnessed overall growth, with the sharpest increase coming in 1995 (Table 6). A more detailed examination of the data unveils that this surge wasn't solely driven by an increase in public health spending; it was also influenced by a decline in private spending. This shift exacerbated the proportion of public spending within overall health expenditure. Apart from this, the remaining periods were comparatively stable, with values nearly constant in the last decade. Moreover, it is worth mentioning that Japan consistently records one of the highest values for this variable, surpassing several countries in the liberal, southern, and even corporatist groups, and practically aligning with the values of social democratic nations.

The marked decline in the overall index can be attributed to the evolution of *PublicP*. Starting with virtually constant values at a very high level, the drop from 96.14% to 63.78% in 1997 is particularly noteworthy (Table 7). A closer examination of the data used to construct this indicator reveals that the decrease is primarily attributable to a significant surge in private pension spending, while the value of public pension spending remained similar to the previous year. Lastly, *Coverage* showed no noteworthy fluctuations, presenting an overall improvement but remaining at a low level in comparison with most of the other nations (Table 8).

### **South Korea**

South Korea consistently exhibits a conspicuously low universalism score, persisting at the bottom throughout the entire period (Figure 3 and Table 1). Notably, there is a substantial improvement, with its score approaching that of Taiwan towards the end of the period and coming close to the United States in several instances. Moreover, the most noteworthy fluctuation is the rapid increase in 1999, followed by a drop, which will be investigated below. Unaveraged *Spending* exhibited substantial growth, displaying a pattern of rapid increase right before 1999, followed by a downturn, as reflected in the overall index, albeit not as pronounced

(Table 2). The aftermath of the 1997 Asian financial crisis may explain the surge in social benefits. The country experienced a GDP drop in 1998, followed by a swift recovery. However, unemployment rose sharply in 1998 and remained at a high level compared to the country's usual rates in 1999. The marked rise in unemployment benefit payments in 1999, followed by a decline in the subsequent year, becomes evident when scrutinizing the disaggregated data on social expenditure. Alongside this upswing in unemployment benefits, social expenditure witnessed increases in other categories. Both the National Pension and Active Labor Market programs experienced a notable surge in 1999, followed by a decrease. Moreover, the growth in the size of social spending follows a similar pattern to that of the QWEST index for the country, highlighting the impact of this variable on its evolution. South Korea presented the lowest value for this variable in 1990, and by 2019, it had significantly surpassed Taiwan and was close to Ireland. *NMeans* demonstrates minimal fluctuation, revealing a net decrease (Table 3). Contrary to the customary trend observed in South Korea, this variable does not exhibit the lowest values among all the countries.

*Tax* elucidates the underlying pattern observed in the evolution of South Korea's QWEST score, notably peaking in 1999 (Table 4). This behavior is not attributed to a decrease in the amount of social contributions, given that the value increases. Instead, the surge in social spending, as highlighted previously, diminishes the value of the ratio of social contributions to social spending. Consequently, the inverse of this value, corresponding to the ratio of tax over social spending, increases substantially. Once more, South Korea displays some of the lowest values among all the countries, further substantiating its low universalism. Concerning *Eligibility*, there are no significant fluctuations; the variable experiences a surge in 1996, corresponding to the introduction of unemployment benefits, and maintains an almost constant value in the remaining period, showing very slight growth towards the end (Table 5). This

dimension underscores the limited generosity of South Korea's social benefits, particularly evident in the absence of sickness benefits, significantly low pension replacement rates, and arguably delayed implementation of unemployment benefits.

*PublicH* displays sizable growth throughout the 1990s, followed by relative stability in the last two decades (Table 6). Despite this expansion, South Korea remains at the bottom in terms of the proportion of public spending in overall health expenditure. In the case of *PublicP*, the peak in 1999 recurs, and although the variable undergoes notable fluctuations, the net increase is modest (Table 7). The rise in the proportion of public spending in overall pensions financing is attributable to an increase in spending in public pensions, along with a decrease in private pension spending.

Lastly, the *Coverage* variable presents the most striking disparity between South Korea and other nations (Table 8). Due to the late introduction of unemployment benefits, the absence of sickness benefits, and the very low coverage rate of pensions, attributable to the introduction of the National Pension Scheme in 1988, initially covering only people working in workplaces with 10 or more full-time employees, and gradually expanding to other sectors of the population, South Korea started with virtually zero coverage. There has been substantial improvement, particularly with the introduction of unemployment benefits in 1996 and the gradual expansion of pension benefits. However, South Korea still displays values significantly disparate from any other country.

### **Taiwan**

Throughout the 1990s, Taiwan seemed to be making strides towards achieving greater universalism (Figure 3 and Table 1). While maintaining a more constant trajectory in the subsequent decade, it ultimately diverged over the last 10 years, concluding with a QWEST score only marginally better than its initial level.

Regarding its position relative to other countries, it started with the third lowest QWEST

score, surpassing only South Korea and the United States. By 2000, it reached its peak outperforming countries such as Canada, Ireland, the Netherlands, Switzerland, and the United Kingdom. However, this upward trajectory proved short-lived, and it descended below all these nations the subsequent year. Ultimately, it was overtaken by the United States in 2016, becoming the second least universal nation.

A detailed examination of individual indicators helps identify the factors contributing to the evolution of Taiwan's universalism level. The unaveraged values of *Spending* display a similar pattern to the one observed in the QWEST index, fluctuating primarily between 4% and 6%, peaking at 8,74% in 2000, and subsequently following a descending trajectory (Table 2). Initially surpassing South Korea in the relative size of social spending, Taiwan concludes at the bottom due to a lack of growth in this variable, in contrast to the significant improvement observed in the aforementioned nation. *NMeans* further contributes to the descending trajectory of Taiwan's universalism, maintaining almost constant values during the initial two decades and experiencing a more pronounced decline toward the end (Table 3).

The dynamics of *Tax*, offer valuable insights into Taiwan's more pronounced fluctuations in the QWEST index values (Table 4). The decline in 1996 can be attributed to the rise in the value of social contributions, stemming from the introduction of National Health Insurance, which implied additional contributions. This increase in the contribution value, coupled with a slight increase in social spending, covertly diminishes the proportion of social spending funded by taxes. While the introduction of the National Pension Program in 2008 brought additional contributions, simultaneously, the contribution amount to the Labor Insurance Program dropped, resulting in an overall decline in the value of social contributions. In contrast to the scenario described earlier, this change implied an increase in the *Tax* variable. Despite the anticipation of a decrease in the value of *Tax* in 2000, due to the rise in social contributions, the peak in social spending offset this movement. Thus, the surge results from

the reduction in the value of the ratio between contributions and social expenditure, leading to a proportional rise in the inverse of that value, corresponding to the *Tax* variable.

The trajectory of *Eligibility* in Taiwan mirrors that observed in South Korea, albeit with Taiwan commencing from a notably higher level (Table 5). This variable remains largely constant, except for two significant increases. The first occurred in 1999, coinciding with the introduction of unemployment benefits, and the second in 2000, attributable to a substantial expansion in the replacement rates of the same program. *PublicH* displayed substantial growth until 1995, followed by a decline that stabilized around 2005 (Table 6). The spike from 1994 to 1995 is marked by a dual effect: significant growth in public health spending at an annual rate of approximately 52% and a noteworthy 33% reduction in private spending. This reduction in private spending amplifies the share of public expenditure in overall health spending in that year. Conversely, *PublicP* contributes to the descending trend (Table 7), notably influenced by the implementation of the New Labor Pension, stipulated in the Labor Pension Act, which came into force on July 1<sup>st</sup>, 2005. This policy mandated that employers deposit at least 6% of a worker's monthly wages into an individual labor pension account, leading to a considerable increase in the proportion of private spending in pensions financing and, consequently, a decrease in the public spending proportion. In contrast, *Coverage* exhibits an opposing trend (Table 8). In 1999 the variable increased significantly, coinciding with the introduction of unemployment benefits, and in the last decade its growth is mostly driven by the expansion of coverage in pension benefits. While significantly surpassing the coverage rates observed in South Korea, Taiwan consistently maintains the second lowest *Coverage* value throughout the period analyzed. This position is shared with Japan in the last two years considered.

Returning to the possibility of aggregating the three East Asian democracies into a distinct group, already deemed questionable when considering the QWEST index values, the

individual analysis provides additional evidence against such aggregation. Japan's welfare state proves to be much more developed and extensive compared to South Korea and Taiwan's, particularly evident in the significant differences observed in the *Spending* and *Coverage* variables. Furthermore, even when comparing South Korea and Taiwan, the challenge of classifying them into the same group becomes apparent, given the considerable gap in the *Eligibility*, *Tax*, and *Coverage* variables.

### **Methodological Note**

Some outcomes observed in the QWEST index, particularly the upward shift in the universalism of the Southern European group when the East Asian countries are introduced in the calculation, prompted a detailed investigation.

Upon closer examination of the data, it became evident that the reason why the inclusion of East Asian nations introduced some distortions was due to the exceptionally low values displayed by Taiwan and South Korea. This can be attributed to the Min-Max normalization method and to the arithmetic average method of aggregation employed, where extremely low or high values may disrupt the normalization process and the direct compensation between variables magnifies the impact of each of them.

To address this issue, we first experimented with removing South Korea from the computations, which alleviated the problem to some extent but did not fully resolve it. Subsequently, removing Taiwan yielded results consistent with existing literature, i.e., bringing the southern group below the corporatist for the whole period (Figure 4). Further analysis revealed that simply excluding South Korea and Taiwan from the *Coverage* variable computations had a similar impact as completely removing the countries from the QWEST index, pinpointing the issue to be associated with this variable (Figure 5).

An analysis of the *Coverage* data with and without these countries unveils a notable issue. The southern welfare state regime, characterized by low coverage rates, as evidenced by

the diminished values for *Coverage* in the countries belonging to this group, more pronounced in Greece and Italy (Table 8). With the introduction of East Asian countries, the lower values displayed by South Korea and Taiwan alter the post-normalization data significantly.

To further clarify the issue, it is worth looking at the post-normalization values in the presence of South Korea and Taiwan (Table 9) and compare them with the post-normalization values in the absence of these countries (Table 10). As an example, excluding South Korea and Taiwan, post-normalization values for Greece ranged from 0.00 to 0.29, and for Italy, from 0.28 to 0.37. After their inclusion, Greece's values increased to 0.62-0.73, and Italy's to 0.73-0.76. This shift is not only in absolute values, which may not be problematic in isolation, but also in the relative gap compared to other countries. Denmark and Norway's post-normalization values, excluding Taiwan and South Korea, ranged from 0.70-0.82 and 0.88-0.93, respectively. Including the two East Asian countries, resulted in a shift to 0.89-0.93 for Denmark and 0.95-0.97 for Norway. The increase in Denmark and Norway's values is relatively small compared to the substantial rise in Greece and Italy's values. The contribution that the *Coverage* variable has to Greece and Italy's final QWEST score is significantly different, which vastly contributes to the southern group's upward shift. Consequently, this contributes to the reduction of the gap between the southern group and the more universal social democratic group.

This analysis highlights a potential concern in the normalization method and the arithmetic average employed for the QWEST index, which must be addressed in further research. While effective for Western countries with less extreme values, the introduction of nations with very distinct welfare state regimes altered the results, impacting the relative positions of some countries. Despite this, the validity of the analysis of individual indicators and of the position of East Asian nations in comparison with others, the focus of this study, is not affected.

## **Conclusion**

The present study applied the QWEST index, a novel tool to measure welfare state

universalism, to scrutinize welfare state development in Japan, South Korea, and Taiwan. Within the relevant literature, various conceptualizations of a unique welfare state regime for East Asian nations were explored, distinct from the social democratic, corporatist, and liberal classifications introduced by Esping-Andersen (1990).

The empirical analysis did not aim to validate the accuracy of any proposed welfare state regime type, such as developmental, productivist, Confucian, and conservative (Aspalter 2001; Holiday 2000; Jones 1993; Kwon 2005). Instead, its aim was to discern if there were significant similarities between these nations' welfare states, as well as distinctions from previously considered Western countries, to support a distinct welfare state regime composed by East Asian countries. The main analysis refutes the grouping of the three East Asian nations into a distinct welfare state regime, spotlighting the pronounced uniqueness of Japan, which consistently exhibits significantly higher levels of universalism, and the obvious lack of universalism in South Korea. While recent trends hint at a convergence between Taiwan and South Korea, the pronounced gap over the majority of the period analyzed challenges their aggregate inclusion into a new welfare state regime.

Addressing methodological concerns raised in this study is imperative for future applications of the QWEST index. The normalization and aggregation challenges posed by extremely low values in South Korea and Taiwan, call for a refinement of the measure to ensure robust cross-country comparisons. Furthermore, enriching the analysis by integrating outcome-oriented data, such as well-being indicators, inequality levels, and poverty metrics, would provide a holistic perspective, bridging the gap between welfare state design and tangible societal impacts.

Looking ahead, extending the analysis to include Hong Kong, Singapore, and other East Asian countries holds promise in either accentuating differences within the region's welfare states, or finding similarities with some of the countries considered.

## References

- Abrahamson, Peter. 2017. "East Asian welfare regime: obsolete ideal-type or diversified reality." *Journal of Asian Public Policy* 10 (1): 90-103.  
<https://doi.org/10.1080/17516234.2016.1258524>.
- Amaral, Luciano, and Kleoniki Alexopoulou. 2022. "The QWEST of the Welfare State: An Index to Measure the Universality of Welfare States". Unpublished paper.
- Andreotti, Alberta, Soledad Garcia, Aitor Gómez, Pedro Hespanha, Yuri Kazepo, and Enzo Mingione. 2001. "Does a Southern European model exist?" *Journal of European Area Studies* 9 (1): 43–62. <https://doi.org/10.1080/14608460120061948>.
- Aspalter, Christian, and Social Policy Association. 2001. *Conservative welfare state systems in East Asia*. Praeger.
- Bureau of Labor Insurance. n.d. "Bureau of Labor Insurance Website - Statistical Data."  
<https://www.bli.gov.tw/en/0009555.html>.
- Blomqvist, Paula, and Joakim Palme. 2020. "Universalism in Welfare Policy: The Swedish Case beyond 1990." *Social Inclusion* 8 (1): 114–23.  
<https://doi.org/10.17645/si.v8i1.2511>.
- Bonoli, Giuliano. 1997. "Classifying Welfare States: A Two-dimension Approach." *Journal of Social Policy* 26 (3): 351–72. <https://doi.org/10.1017/s0047279497005059>.
- Brady, David, and Amie Bostic. 2015. "Paradoxes of social policy: Welfare transfers, relative poverty, and redistribution preferences." *American Sociological Review* 80 (2): 268-98.
- Bureau of Statistics Directorate General of Budget, Accounting and Statistics, Executive Yuan. 2021. *National Accounts Yearbook*.
- Castles, Francis G., and Deborah Mitchell. 1993. "Worlds of welfare and families of nations." *Families of nations: Patterns of public policy in western democracies* 93: 94-112.

- Dept. of Household Registration, Ministry of the Interior. Republic of China (Taiwan) - History. <https://www.ris.gov.tw/app/en/3911>.
- Esping-Andersen, Gøsta. 1990. *The three worlds of welfare capitalism*. Princeton University Press.
- Esping-Andersen, Gøsta. 1997. "Hybrid or Unique?: The Japanese Welfare State Between Europe and America." *Journal of European Social Policy* 7 (3): 179–89. <https://doi.org/10.1177/095892879700700301>.
- European Commission - Joint Research Centre. 2008. Handbook on constructing composite indicators: Methodology and user guide.
- Eurostat. n.d. "Database - Eurostat." <https://ec.europa.eu/eurostat/web/main/data/database>.
- Ferrera, Maurizio. 1996. "The 'Southern Model' of Welfare in Social Europe." *Journal of European Social Policy* 6 (1): 17–37. <https://doi.org/10.1177/095892879600600102>.
- Holliday, Ian. 2000. "Productivist Welfare Capitalism: Social policy in East Asia." *Political Studies* 48 (4): 706–23. <https://doi.org/10.1111/1467-9248.00279>.
- Human Mortality Database. n.d. <https://www.mortality.org/>.
- Hwang, Gyu-Jin. 2012. "Explaining Welfare state adaptation in East Asia: the cases of Japan, Korea and Taiwan." *Asian Journal of Social Science* 40 (2): 174–202. <https://doi.org/10.1163/156853112x640134>.
- Jacques, Olivier, and Alain Noël. 2018. "The case for welfare state universalism, or the lasting relevance of the paradox of redistribution." *Journal of European Social Policy* 28 (1): 70–85. <https://doi.org/10.1177/0958928717700564>.
- Jones, Catherine. 1993. "The Pacific challenge: Confucian welfare states." *New Perspectives on the Welfare State in Europe* 198-217.

- Korpi, Walter, and Joakim Palme. 1998. "The paradox of redistribution and strategies of equality: welfare state institutions, inequality, and poverty in the Western countries." *American Sociological Review* 63 (5): 661. <https://doi.org/10.2307/2657333>.
- Kim, Won-Sub, and Shih-Jiunn Shi. 2013. "Emergence of New Welfare States in East Asia?: Domestic Social Changes and the Impact of 'Welfare Internationalism' in South Korea and Taiwan (1945–2012)." *The International Journal of Social Quality* 3 (2): 106-24.
- Ku, Yeun-wen. 1997. *Welfare capitalism in Taiwan: State, Economy and Social Policy*. London: Macmillan Press.
- Ku, Yeun-Wen, and Catherine Jones Finer. 2007. "Developments in East Asian welfare Studies." *Social Policy & Administration* 41 (2): 115–31. <https://doi.org/10.1111/j.1467-9515.2007.00542.x>.
- Kuypers, Sarah. 2014. "The East Asian Welfare Regime: Reality or Fiction." *CSB Working paper* 14 (4).
- Kwon, Huck-ju. 1997. "Beyond European welfare regimes: Comparative perspectives on East Asian welfare systems." *Journal of Social Policy* 26 (4): 467–84.
- Kwon, Huck-ju. 2005. "Transforming the developmental welfare state in East Asia." *Development and Change* 36 (3): 477–97. <https://doi.org/10.1111/j.0012-155x.2005.00420.x>.
- Lee, Yih-Jiunn, and Yeun-Wen Ku. 2007. "East Asian Welfare Regimes: Testing the hypothesis of the developmental welfare state." *Social Policy & Administration* 41 (2): 197–212. <https://doi.org/10.1111/j.1467-9515.2007.00547.x>.
- Leibfried, S. 1992. 'Towards a European Welfare State?', in Z. Ferge and J. E. Kolberg (eds) *Social Policy in a Changing Europe* 245-79. Frankfurt: Campus Verlag.

- Lin, Kejian, and Chack-Kie Wong. 2013. "Social policy and social order in East Asia: an evolutionary view." *Asia Pacific Journal of Social Work and Development* 23 (4): 270–84. <https://doi.org/10.1080/02185385.2013.778785>.
- Mazziotta, Matteo, and Adriano Pareto. 2013. "Methods for constructing composite indices: One for all or all for one." *Rivista Italiana di Economia Demografia e Statistica* 67 (2): 67-80.
- Ministry of Finance. R.O.C. n.d. "Public Finance Statistics Database."  
<https://web02.mof.gov.tw/njswww/webmain.aspx?sys=100&funid=edefjspf2>.
- Ministry of Health and Welfare. n.d. "2020 NHE Statistical Tables"  
<https://www.mohw.gov.tw/mp-2.html>.
- Nam, Yunmin. 2020. "The divergent evolution of east Asian welfare states: Japan, South Korea, Taiwan, and Singapore." *Asian Politics & Policy* 12 (4): 559-74.  
<https://doi.org/10.1111/aspp.12557>.
- OECD. n.d. "Country Note, Database on Social Expenditure"  
[www.oecd.org/social/expenditure.htm](http://www.oecd.org/social/expenditure.htm)
- OECD. n.d. "OECD Statistics." <https://stats.oecd.org/>.
- OECD. n.d. "Social Expenditure - Aggregated data."  
[https://stats.oecd.org/Index.aspx?datasetcode=SOCX\\_AGG#](https://stats.oecd.org/Index.aspx?datasetcode=SOCX_AGG#).
- OECD. n.d. "Social Policy Division - Directorate of Employment, Labour and Social Affairs"
- Scruggs, Lyle. 2014. "Social welfare generosity scores in CWED 2: A methodological genealogy." *Comparative Welfare Entitlements Dataset Working Paper* 1: 1-19.
- Scruggs, Lyle, and James Allan. 2006. "Welfare-state decommodification in 18 OECD countries: a replication and revision." *Journal of European Social Policy* 16 (1): 55-72.

Scruggs, Lyle. 2022. "Comparative Welfare Entitlements Project Data Set, Version 2022-12".

<http://cwep.us/>

Scruggs, Lyle. 2022. "Comparative Welfare Entitlements Project Data Set, Version 2022-12.

Codebook." <http://cwep.us/>

Social Security Programs Throughout the World (SSPTW): Asia and the Pacific (2018)

Taiwan Statistical Data Book 2012 National Development Council. R.O.C. (Taiwan)

Taiwan Statistical Data Book. 2016. National Development Council. R.O.C. (Taiwan)

Yang, Jae-jin. 2013. "Parochial welfare politics and the small welfare state in South Korea."

*Comparative Politics* 45 (4): 457–75.

Appendix – Figures and Tables

Figure 1

QWEST Welfare State Regimes, 1990-2019

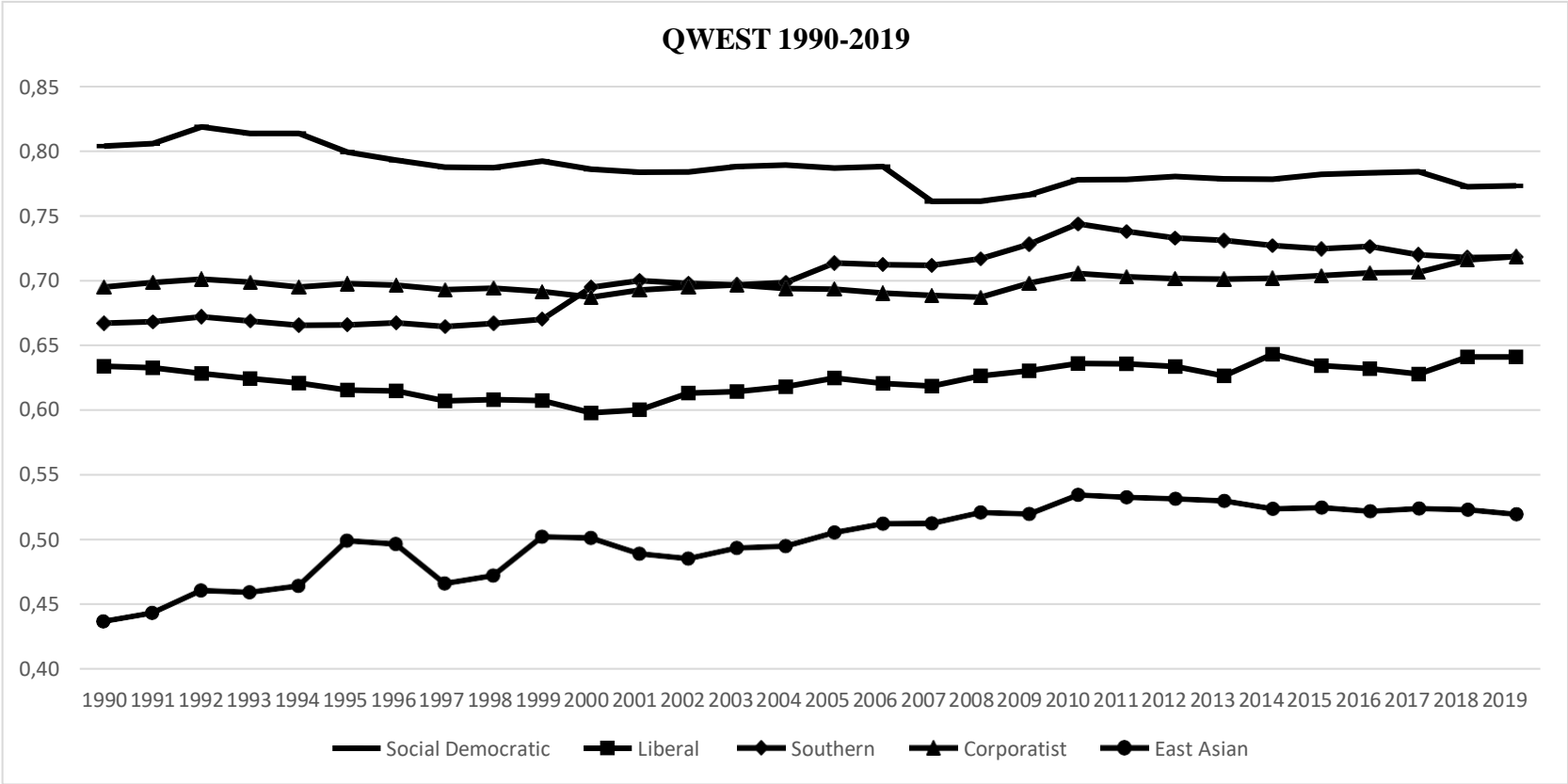


Figure 2

QWEST Welfare State Regimes (Vittorio Soverini), 1990-2019

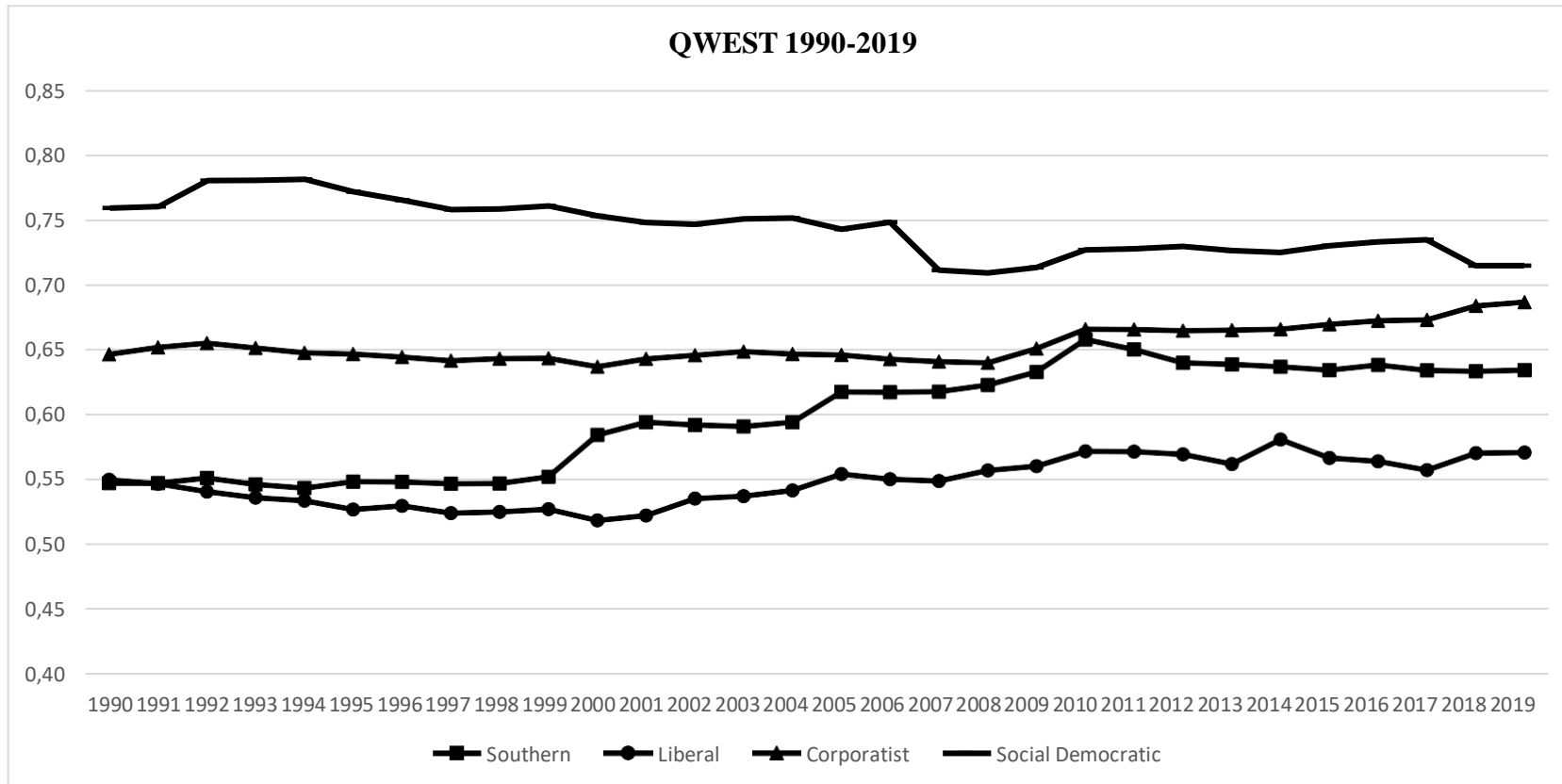


Figure 3

QWEST Welfare State Regimes and East Asian Countries, 1990-2019

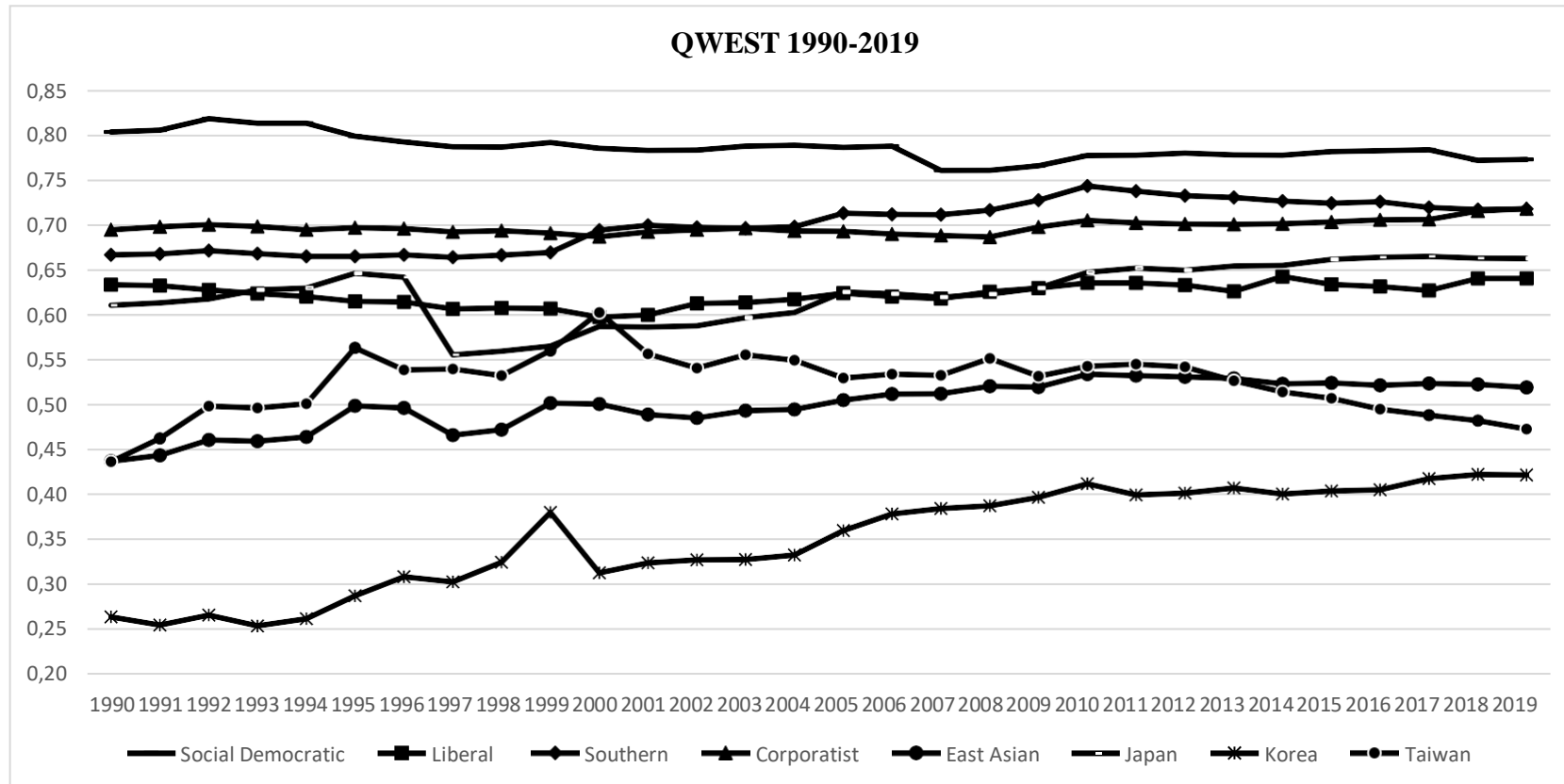


Figure 4

QWEST Welfare State Regimes (excluding South Korea and Taiwan), 1990-2019

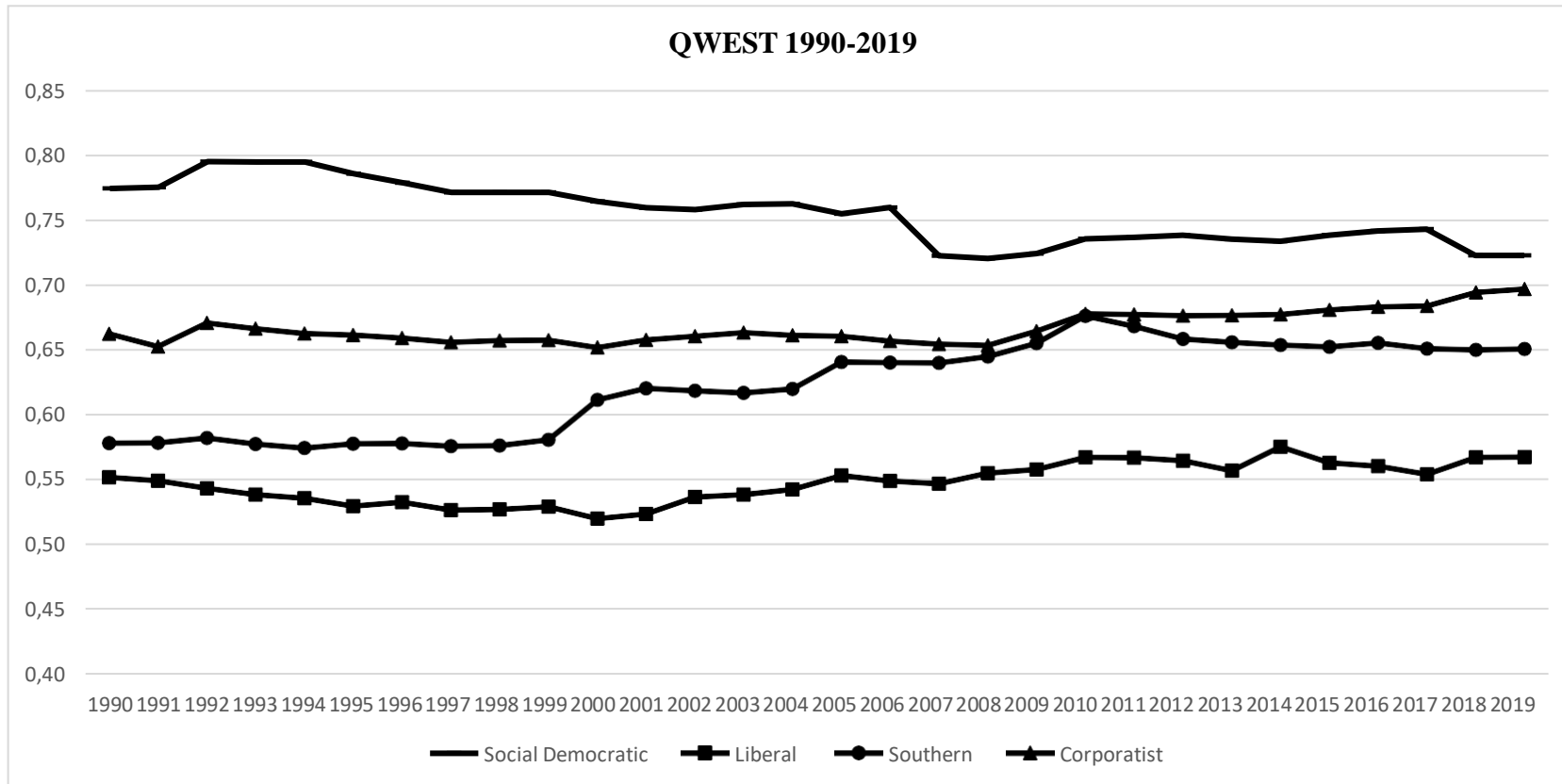
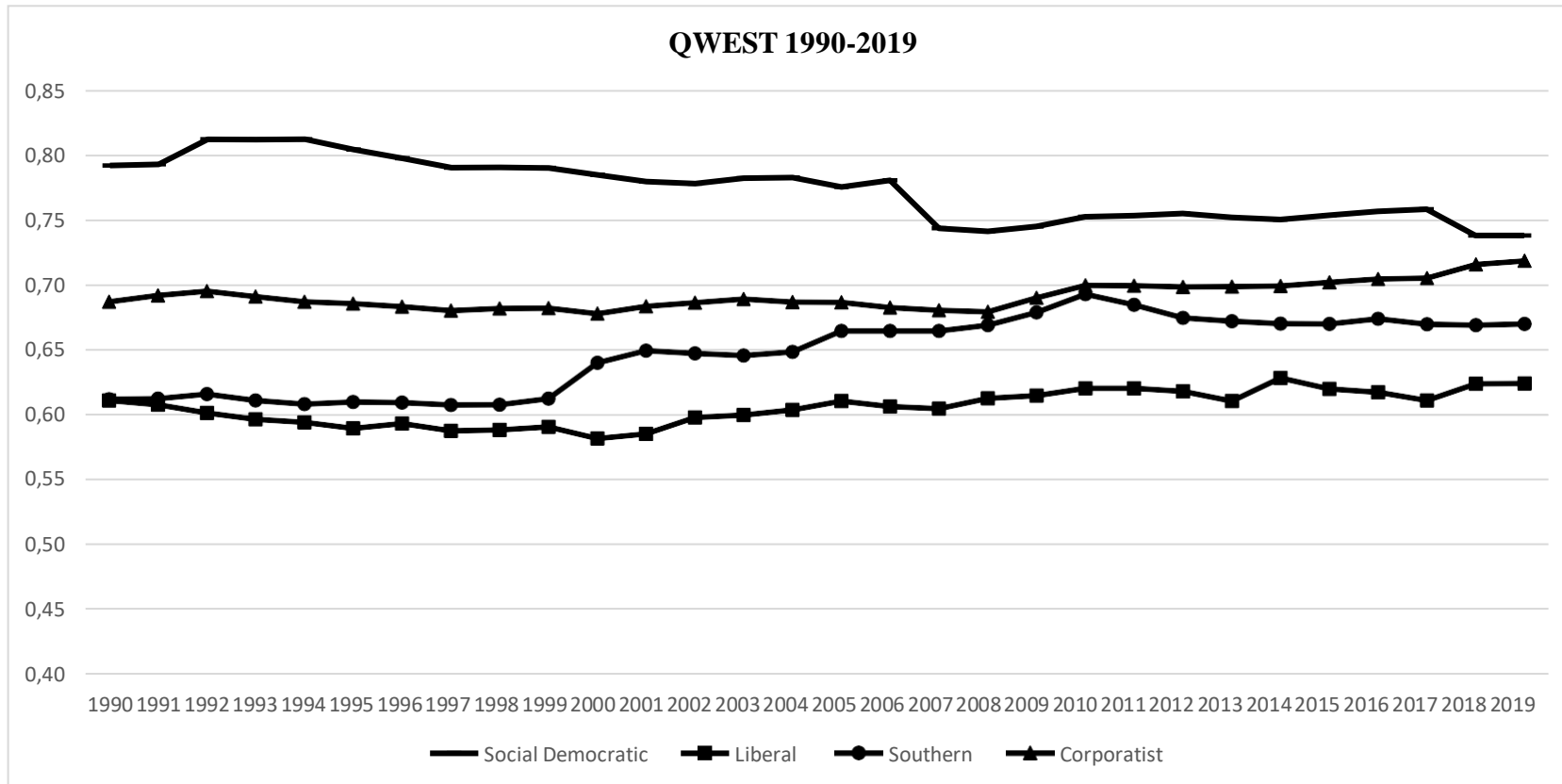


Figure 5

QWEST Welfare State Regimes (excluding South Korea and Taiwan in Coverage), 1990-2019



**Table 1**  
**QWEST Index, 1990-2019<sup>2</sup>**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	0,61	0,26	0,44	0,67	0,74	0,76	0,66	0,84	0,79	0,73	0,69	0,62	0,63	0,69	0,66	0,84	0,79	0,65	0,71	0,80	0,59	0,61	0,40
1991	0,61	0,25	0,46	0,67	0,75	0,75	0,65	0,84	0,79	0,73	0,71	0,61	0,62	0,69	0,66	0,84	0,79	0,64	0,72	0,79	0,59	0,61	0,41
1992	0,62	0,27	0,50	0,67	0,74	0,74	0,65	0,84	0,79	0,73	0,72	0,62	0,62	0,69	0,67	0,83	0,80	0,64	0,73	0,84	0,60	0,61	0,41
1993	0,63	0,25	0,50	0,66	0,75	0,74	0,64	0,84	0,78	0,73	0,72	0,61	0,62	0,69	0,66	0,81	0,80	0,66	0,71	0,83	0,60	0,61	0,41
1994	0,63	0,26	0,50	0,66	0,75	0,74	0,63	0,84	0,78	0,73	0,72	0,60	0,62	0,69	0,64	0,81	0,80	0,67	0,70	0,83	0,59	0,60	0,41
1995	0,65	0,29	0,56	0,67	0,75	0,74	0,62	0,84	0,75	0,76	0,73	0,61	0,60	0,67	0,63	0,80	0,80	0,69	0,69	0,81	0,57	0,60	0,40
1996	0,64	0,31	0,54	0,67	0,75	0,74	0,61	0,83	0,74	0,77	0,74	0,61	0,62	0,67	0,61	0,79	0,79	0,69	0,69	0,81	0,57	0,60	0,40
1997	0,56	0,30	0,54	0,66	0,74	0,73	0,60	0,83	0,74	0,77	0,73	0,60	0,63	0,67	0,61	0,79	0,78	0,69	0,69	0,80	0,58	0,57	0,39
1998	0,56	0,32	0,53	0,66	0,74	0,73	0,60	0,82	0,74	0,78	0,73	0,60	0,64	0,69	0,61	0,78	0,79	0,69	0,69	0,80	0,58	0,58	0,39
1999	0,57	0,38	0,56	0,65	0,74	0,73	0,59	0,82	0,76	0,77	0,73	0,61	0,64	0,69	0,59	0,79	0,79	0,69	0,69	0,80	0,57	0,58	0,38
2000	0,59	0,31	0,60	0,66	0,74	0,73	0,59	0,82	0,75	0,77	0,73	0,66	0,58	0,71	0,58	0,79	0,79	0,73	0,69	0,78	0,57	0,59	0,38
2001	0,59	0,32	0,56	0,64	0,75	0,73	0,59	0,82	0,75	0,77	0,73	0,67	0,59	0,71	0,60	0,79	0,80	0,73	0,69	0,77	0,57	0,60	0,39
2002	0,59	0,33	0,54	0,64	0,75	0,72	0,58	0,82	0,75	0,78	0,73	0,65	0,64	0,72	0,61	0,80	0,78	0,74	0,68	0,78	0,58	0,62	0,39
2003	0,60	0,33	0,56	0,66	0,75	0,73	0,58	0,82	0,76	0,77	0,73	0,65	0,66	0,72	0,61	0,80	0,79	0,73	0,69	0,79	0,59	0,60	0,39
2004	0,60	0,33	0,55	0,68	0,75	0,73	0,58	0,82	0,76	0,78	0,72	0,65	0,65	0,72	0,60	0,80	0,79	0,73	0,69	0,79	0,59	0,60	0,39
2005	0,63	0,36	0,53	0,67	0,75	0,74	0,59	0,82	0,77	0,78	0,71	0,68	0,66	0,74	0,59	0,82	0,78	0,74	0,70	0,78	0,59	0,62	0,39
2006	0,62	0,38	0,53	0,66	0,75	0,74	0,59	0,83	0,76	0,77	0,71	0,68	0,66	0,74	0,60	0,81	0,78	0,72	0,70	0,78	0,58	0,62	0,39
2007	0,62	0,38	0,53	0,62	0,74	0,74	0,59	0,74	0,76	0,77	0,71	0,68	0,67	0,73	0,59	0,82	0,78	0,72	0,71	0,77	0,58	0,62	0,39
2008	0,62	0,39	0,55	0,63	0,74	0,75	0,60	0,74	0,76	0,77	0,71	0,70	0,68	0,74	0,57	0,82	0,78	0,72	0,71	0,76	0,58	0,62	0,40
2009	0,63	0,40	0,53	0,63	0,75	0,76	0,61	0,74	0,77	0,77	0,73	0,72	0,66	0,74	0,59	0,82	0,79	0,73	0,72	0,77	0,59	0,63	0,42
2010	0,65	0,41	0,54	0,63	0,75	0,78	0,61	0,76	0,79	0,79	0,73	0,74	0,68	0,76	0,60	0,82	0,80	0,75	0,73	0,76	0,59	0,64	0,43
2011	0,65	0,40	0,55	0,63	0,76	0,78	0,61	0,76	0,79	0,78	0,73	0,73	0,68	0,75	0,58	0,82	0,80	0,75	0,72	0,76	0,59	0,64	0,43
2012	0,65	0,40	0,54	0,63	0,76	0,77	0,61	0,76	0,80	0,78	0,73	0,73	0,67	0,75	0,58	0,82	0,80	0,74	0,72	0,76	0,59	0,65	0,43
2013	0,65	0,41	0,53	0,62	0,76	0,78	0,61	0,75	0,80	0,78	0,73	0,71	0,66	0,75	0,57	0,81	0,80	0,74	0,72	0,76	0,59	0,65	0,42
2014	0,66	0,40	0,51	0,62	0,75	0,78	0,60	0,75	0,80	0,78	0,73	0,70	0,66	0,75	0,57	0,81	0,80	0,74	0,72	0,76	0,59	0,65	0,51
2015	0,66	0,40	0,51	0,63	0,76	0,78	0,61	0,75	0,80	0,78	0,73	0,70	0,63	0,75	0,57	0,80	0,81	0,72	0,72	0,76	0,60	0,64	0,51
2016	0,66	0,41	0,50	0,62	0,75	0,79	0,59	0,76	0,80	0,80	0,73	0,71	0,63	0,75	0,56	0,80	0,82	0,72	0,73	0,76	0,60	0,63	0,52
2017	0,67	0,42	0,49	0,62	0,76	0,79	0,58	0,76	0,80	0,80	0,73	0,69	0,62	0,75	0,56	0,80	0,82	0,72	0,73	0,76	0,60	0,63	0,51
2018	0,66	0,42	0,48	0,63	0,77	0,79	0,58	0,76	0,81	0,82	0,76	0,68	0,68	0,72	0,57	0,80	0,81	0,73	0,73	0,71	0,57	0,64	0,51
2019	0,66	0,42	0,47	0,65	0,78	0,79	0,57	0,76	0,82	0,83	0,77	0,68	0,68	0,73	0,58	0,80	0,81	0,73	0,73	0,71	0,57	0,63	0,51

<sup>2</sup> Country names are substituted by the respective ISO 3166-1 alpha-3 codes in all the tables presented.

**Table 2**  
**Social Spending (% GDP), 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	10,45	2,64	4,25	13,12	23,26	24,57	17,39	21,95	23,33	24,40	21,35	15,72	16,86	20,64	23,68	20,15	21,55	12,23	19,14	26,85	12,60	14,90	13,20
1991	10,58	2,55	4,77	14,28	23,58	25,34	19,61	22,40	28,25	25,03	22,31	15,18	17,76	21,01	23,63	20,57	22,46	13,10	19,88	28,66	13,40	16,39	14,17
1992	11,19	2,77	5,22	15,26	24,28	24,35	20,26	22,60	32,20	25,77	24,02	15,39	18,53	21,73	24,07	20,25	23,35	13,76	21,01	32,21	14,79	17,82	14,85
1993	11,88	2,84	5,16	15,52	25,68	25,40	20,20	23,79	32,28	27,17	24,72	16,23	18,50	22,00	24,17	18,80	23,26	15,12	22,26	33,70	16,11	18,42	15,11
1994	12,38	2,83	5,18	15,24	26,61	24,80	19,11	25,42	31,57	27,21	24,90	16,26	18,10	21,98	22,90	18,14	23,08	15,24	21,27	32,52	16,06	17,72	15,06
1995	12,75	3,01	5,62	16,88	26,56	25,30	18,21	25,51	28,90	28,49	25,25	16,60	17,56	21,06	22,08	17,62	22,47	16,02	20,63	30,19	14,38	16,58	14,94
1996	12,72	3,16	6,17	17,00	26,68	25,94	17,41	24,95	28,73	28,78	25,86	17,01	16,59	21,47	21,00	17,56	21,68	16,60	20,53	29,72	14,64	16,39	15,22
1997	13,15	3,40	6,24	16,77	26,18	24,93	16,79	24,16	26,61	28,65	25,45	16,91	15,51	22,15	20,32	18,58	21,18	16,44	19,96	28,47	15,09	16,53	14,33
1998	13,86	4,72	5,82	17,59	25,98	24,93	16,87	23,74	24,51	28,86	25,39	17,46	14,54	22,30	20,27	19,11	22,63	16,84	19,86	28,17	15,07	16,93	14,40
1999	14,73	5,62	5,62	17,23	26,33	24,73	15,88	24,55	23,84	28,83	25,52	17,97	13,68	22,72	19,58	18,46	22,55	17,24	19,74	27,65	14,88	16,74	14,12
2000	14,92	4,41	8,74	18,21	26,04	23,66	15,59	23,77	22,69	27,72	25,47	17,77	13,14	22,61	18,98	18,26	20,41	18,58	19,46	26,43	14,08	16,81	14,12
2001	15,76	4,79	6,74	17,51	26,09	24,12	16,02	24,29	22,51	27,70	25,49	18,64	13,95	22,80	19,08	17,63	21,23	19,06	19,09	26,55	14,35	17,61	14,70
2002	16,11	4,65	5,33	17,31	26,40	24,50	16,03	24,80	23,24	28,42	26,17	18,36	14,86	23,23	19,86	18,21	22,71	20,41	19,35	27,21	15,35	17,86	15,54
2003	16,29	4,95	5,59	17,50	26,93	25,06	16,10	25,33	23,89	28,80	26,63	18,18	15,42	23,56	20,54	17,57	23,64	21,46	19,99	27,92	15,95	18,62	15,80
2004	16,49	5,54	5,37	17,20	26,72	24,83	16,10	25,12	23,99	28,88	26,02	18,31	15,74	23,82	20,39	16,70	22,28	21,80	20,21	27,43	15,84	19,19	15,66
2005	16,89	5,88	5,40	16,66	26,34	24,69	15,95	25,20	23,96	28,83	26,38	19,53	15,83	24,06	19,91	19,93	20,74	22,42	20,48	27,10	15,68	19,14	15,49
2006	17,01	6,70	5,22	15,70	26,06	24,60	16,35	24,96	23,78	28,39	25,11	19,38	15,84	24,18	16,43	20,04	19,48	21,64	20,52	26,41	14,94	19,06	15,54
2007	17,43	6,78	4,94	15,86	25,48	24,34	16,26	25,91	22,87	28,24	24,21	20,14	16,75	24,00	15,74	20,67	19,60	21,31	20,90	25,33	14,37	19,57	15,67
2008	18,45	7,26	4,98	17,05	25,95	25,75	16,35	26,32	23,36	28,48	24,36	21,57	19,96	24,93	15,47	22,63	19,28	21,77	22,33	25,37	14,05	20,83	16,25
2009	20,63	8,07	5,31	16,85	27,96	27,98	18,09	29,28	26,95	30,94	26,81	23,91	23,85	26,95	17,07	23,56	22,52	24,11	25,61	27,21	15,56	22,92	18,31
2010	20,98	7,86	5,02	16,55	28,05	27,67	17,60	29,91	27,41	30,98	26,07	25,02	24,13	26,94	17,46	23,43	22,12	24,34	24,90	25,85	15,20	23,07	19,03
2011	21,83	7,81	5,25	17,02	27,23	28,10	17,09	30,02	27,07	30,70	24,76	26,46	23,29	26,55	17,54	22,93	21,58	24,23	25,54	25,28	15,16	22,85	18,73
2012	21,77	8,33	5,75	17,31	27,61	27,96	17,22	30,20	28,33	31,18	24,66	27,43	23,05	27,26	17,92	22,79	21,47	24,33	25,55	26,28	15,38	22,95	18,46
2013	21,77	8,83	5,58	17,26	28,03	28,34	16,99	30,05	29,44	31,66	24,85	25,44	21,81	27,87	18,13	21,26	21,92	25,41	25,71	26,95	15,67	22,22	18,43
2014	21,54	9,19	5,01	17,80	28,26	28,39	16,91	30,02	30,17	31,97	24,80	25,49	20,09	28,12	17,93	21,13	22,84	24,98	25,37	26,59	15,58	21,69	18,44
2015	21,91	9,64	4,88	18,21	28,26	29,06	17,93	29,98	30,53	31,78	25,07	25,72	15,20	28,32	17,60	20,04	24,68	23,92	24,71	26,11	16,08	21,28	18,54
2016	21,97	9,87	4,83	17,48	28,20	28,43	18,30	29,43	30,44	31,92	25,28	26,04	15,13	27,93	17,47	19,65	25,93	23,46	24,25	26,53	16,24	20,62	18,66
2017	22,08	10,11	4,93	17,08	27,83	28,28	18,03	28,98	29,57	31,45	25,24	25,19	14,18	27,65	16,65	18,65	25,13	22,73	23,93	25,86	16,44	20,21	18,47
2018	22,20	10,90	4,81	16,64	27,56	28,36	18,00	28,53	29,35	30,99	25,30	25,03	13,52	27,52	16,32	19,46	24,21	22,46	24,03	25,63	15,97	19,72	18,24
2019	22,77	12,26	4,69	20,45	27,71	28,22	18,78	28,44	29,42	30,74	25,59	25,08	12,87	27,73	16,32	23,64	25,28	22,34	24,65	25,07	16,15	19,51	18,26

Source: Detailed in Data section for *Spending* variable

**Table 3**

**Share of Social Benefits not Subject to Means-Testing in Overall Social Benefits (%), 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	94,95	94,49	94,17	72,92	96,10	97,35	96,02	97,42	88,50	88,37	89,71	93,80	68,99	92,19	90,39	91,85	94,95	93,77	86,37	94,00	93,82	84,97	60,62
1991	94,97	94,57	94,01	71,84	96,04	97,24	95,29	97,30	88,62	88,51	89,94	94,16	68,34	93,23	90,95	91,03	95,21	93,48	86,73	93,80	93,04	84,04	59,74
1992	94,95	95,20	93,86	71,97	96,02	97,39	95,02	97,20	87,41	88,71	89,66	94,32	67,07	93,51	91,70	90,23	95,30	93,52	86,52	93,80	93,01	82,68	58,90
1993	95,09	95,24	93,70	71,51	95,74	97,47	94,84	97,12	86,82	88,46	88,99	93,81	66,88	93,46	92,23	88,26	95,31	93,34	86,05	93,71	92,91	82,11	57,85
1994	95,05	95,56	93,54	72,21	95,77	97,48	94,76	97,26	89,50	88,22	88,74	93,72	66,88	93,69	91,62	86,56	95,28	93,63	85,99	93,35	92,76	82,13	56,45
1995	94,92	95,48	93,38	74,38	94,72	96,10	94,67	97,22	87,90	88,20	89,00	94,28	68,23	94,49	91,64	85,81	95,24	93,58	86,30	93,38	92,79	81,95	55,22
1996	94,80	95,06	93,23	75,04	94,78	96,11	94,66	97,24	84,67	88,46	89,43	93,38	67,96	94,54	91,58	84,99	95,43	93,39	86,05	93,51	93,45	82,28	54,71
1997	94,77	94,72	93,07	74,38	93,14	96,69	94,56	97,17	85,26	88,27	89,56	90,76	69,37	94,37	89,43	83,37	95,69	93,39	86,35	94,03	93,37	83,43	54,10
1998	95,37	96,05	92,91	72,31	93,06	96,69	94,60	97,09	85,39	88,20	89,60	91,03	70,52	94,51	89,11	83,47	95,81	92,81	86,39	94,37	93,12	83,82	55,78
1999	94,83	95,26	92,67	72,53	93,33	96,82	94,63	97,10	93,22	88,16	89,90	90,58	71,03	94,15	90,00	83,60	96,06	92,33	86,71	94,82	92,66	83,74	55,48
2000	96,14	93,57	95,16	73,93	92,76	95,76	94,68	97,12	93,73	88,15	90,00	97,65	76,11	94,20	90,06	84,35	96,22	92,40	87,27	95,30	92,90	85,29	55,45
2001	96,00	91,62	93,41	73,11	93,18	95,70	95,16	97,08	94,07	87,89	90,16	97,41	77,33	94,25	90,55	84,86	96,52	92,08	87,44	95,62	93,75	85,53	54,53
2002	95,83	91,73	91,92	73,10	93,01	95,44	95,28	97,00	94,01	88,44	89,96	97,61	76,05	94,06	90,70	85,56	93,04	90,89	87,18	95,96	93,78	84,68	54,42
2003	95,75	91,75	92,07	73,28	92,97	95,17	95,43	97,00	94,35	88,97	89,47	97,50	75,91	94,27	91,22	85,59	93,10	90,96	87,35	97,00	93,63	80,02	53,44
2004	95,57	88,10	91,71	73,98	92,53	95,35	95,54	96,95	94,64	89,05	88,99	96,55	76,75	94,41	90,61	85,59	93,74	89,18	87,48	97,03	93,43	79,73	52,33
2005	95,70	89,29	91,66	74,56	92,42	95,28	95,77	96,95	94,93	89,07	87,85	96,69	76,79	94,55	90,61	84,73	94,27	89,06	86,58	97,10	93,39	80,91	51,66
2006	95,45	88,82	91,38	73,74	92,18	95,16	95,99	97,02	95,21	88,80	87,47	96,65	76,26	94,49	89,52	83,25	94,45	90,79	86,35	97,17	93,27	80,85	50,93
2007	95,31	89,93	91,08	74,35	92,25	95,06	96,36	66,72	95,54	88,88	87,77	95,99	75,74	94,22	87,76	83,26	94,77	90,74	86,57	97,23	93,40	79,37	50,91
2008	95,29	88,44	90,26	75,00	92,12	94,86	96,31	66,54	95,82	89,03	88,05	96,44	74,82	94,26	87,44	85,88	94,93	90,11	86,63	97,30	93,26	79,18	50,73
2009	95,32	88,62	88,54	73,63	91,98	94,89	96,43	67,46	95,70	88,78	88,24	96,57	73,29	93,78	87,03	86,07	95,00	89,87	86,04	97,26	93,36	78,61	52,34
2010	93,84	89,68	88,53	73,25	91,81	94,91	96,40	66,11	95,62	89,03	88,06	96,53	70,82	94,31	86,97	86,53	95,13	89,97	85,29	97,19	93,16	78,70	52,32
2011	93,82	90,46	88,42	73,36	91,74	94,99	96,71	65,04	95,37	89,09	88,21	96,81	69,30	94,58	86,79	87,01	95,27	91,24	83,82	97,27	92,94	79,23	51,56
2012	94,03	90,88	86,50	73,65	91,72	94,74	96,79	64,70	94,97	89,07	88,23	96,85	69,09	94,58	86,93	87,48	95,47	91,13	85,07	97,30	92,83	79,79	51,11
2013	94,14	91,43	85,61	72,78	91,57	94,84	96,90	64,61	94,66	89,01	88,05	95,33	68,59	94,54	86,56	85,05	95,66	91,63	85,56	97,35	92,82	80,64	50,88
2014	94,28	89,73	84,73	72,98	91,30	95,09	96,98	64,58	94,37	88,97	87,92	94,04	69,18	93,07	87,03	85,94	95,86	91,84	85,83	97,35	92,59	81,36	50,03
2015	94,48	87,76	83,86	73,48	90,87	95,18	97,13	63,93	93,90	89,10	87,66	94,54	70,19	92,40	85,51	86,48	96,32	92,01	86,65	97,44	92,57	82,29	49,43
2016	94,49	88,16	83,01	73,80	90,23	94,81	90,51	63,16	93,48	89,02	87,09	94,90	71,03	92,15	85,25	86,90	96,46	91,91	86,99	97,58	92,46	82,36	49,56
2017	94,52	88,69	82,16	73,75	90,62	94,71	90,45	63,70	93,25	88,95	87,39	93,24	72,56	91,98	85,22	87,56	96,56	92,05	87,36	97,62	92,52	83,34	49,51
2018	94,59	88,35	81,31	73,99	95,74	94,63	90,88	64,12	97,58	95,29	99,29	92,34	92,34	85,30	90,89	87,15	92,52	96,49	89,03	79,04	84,18	91,10	49,34
2019	94,57	86,48	80,48	74,23	97,76	94,40	85,82	63,81	97,60	94,97	99,37	94,20	94,20	87,11	91,13	87,43	92,55	96,63	88,65	78,59	84,00	90,42	49,17

Source: Detailed in Data section for *NMeans* variable

**Table 4**

**Share of Social Spending Financed by Taxes (%), 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	29,35	29,06	49,59	100,00	44,49	44,04	75,54	99,95	52,82	25,63	38,91	51,59	72,90	42,15	37,27	100,00	50,89	41,16	41,64	50,53	57,14	62,93	48,87
1991	28,80	25,28	57,07	100,00	44,87	43,67	76,21	99,90	56,26	27,25	40,27	51,37	73,25	42,36	34,01	100,00	53,07	43,02	48,74	52,49	58,36	66,23	52,02
1992	31,28	26,90	64,96	100,00	43,90	40,59	75,46	99,90	59,21	29,03	43,45	52,45	74,07	43,49	33,02	100,00	54,41	45,52	54,98	59,47	61,50	69,51	54,14
1993	33,83	12,94	67,91	100,00	44,83	42,21	75,86	99,90	57,18	28,40	44,47	49,26	73,92	42,12	33,53	100,00	58,21	50,30	45,78	64,58	60,15	70,28	55,25
1994	34,82	18,43	70,77	100,00	45,08	42,11	73,72	99,93	54,26	30,79	43,71	49,04	74,02	45,16	28,57	100,00	58,27	50,33	44,04	63,21	61,00	69,26	54,91
1995	33,07	24,72	75,27	100,00	44,60	44,16	73,44	99,79	52,54	36,11	43,97	45,81	75,48	42,52	33,31	100,00	58,15	52,11	45,41	58,73	53,35	69,13	54,75
1996	32,45	18,35	61,45	100,00	44,75	45,47	71,89	99,74	54,01	36,59	44,48	46,76	75,55	36,26	32,54	100,00	57,56	54,55	46,04	54,95	53,94	69,22	55,96
1997	32,80	20,92	63,75	100,00	43,88	43,61	71,60	99,63	53,32	37,90	42,82	45,19	75,30	36,89	30,99	100,00	56,96	53,04	43,78	53,09	55,50	68,24	53,32
1998	35,32	33,39	62,50	100,00	43,77	43,75	70,81	99,64	50,18	45,44	43,37	45,71	75,31	47,61	31,98	100,00	57,17	54,24	43,13	53,43	57,21	68,98	53,16
1999	39,40	41,31	62,26	100,00	44,69	43,44	70,12	97,37	48,97	44,78	44,22	46,60	73,71	48,79	26,88	100,00	56,35	54,93	41,72	58,28	55,73	67,90	52,34
2000	39,83	20,84	73,86	100,00	45,15	42,51	69,47	97,32	49,11	43,42	44,26	43,08	72,17	48,83	24,79	100,00	57,04	57,37	40,77	51,77	53,47	67,69	52,09
2001	41,16	18,94	64,66	100,00	45,41	42,89	70,12	97,38	48,46	43,40	45,21	45,30	73,02	49,80	33,30	100,00	57,35	57,08	38,70	50,25	53,06	68,93	54,13
2002	41,92	13,07	56,88	100,00	46,74	42,88	69,00	99,54	50,62	44,53	46,81	39,59	75,08	49,94	37,94	100,00	57,38	59,64	39,58	52,08	55,03	70,61	57,04
2003	42,76	12,21	60,61	100,00	47,69	44,57	69,09	99,55	52,67	44,44	47,14	39,46	76,05	49,98	37,45	100,00	59,41	61,53	41,23	54,54	58,26	69,88	58,17
2004	43,39	19,69	59,76	100,00	47,55	45,27	70,12	99,56	53,37	45,31	46,83	42,57	75,71	50,35	36,61	100,00	58,78	62,71	41,68	54,64	60,24	69,23	57,85
2005	43,52	22,02	60,29	100,00	47,24	45,78	70,18	99,57	52,16	44,76	48,40	45,18	75,76	50,08	39,34	100,00	58,04	63,36	42,56	54,18	60,62	68,90	58,18
2006	42,57	28,37	59,11	100,00	47,24	46,00	71,22	99,60	50,68	43,41	47,07	47,06	75,53	50,60	21,09	100,00	56,34	62,52	42,58	55,71	59,85	68,59	58,75
2007	42,97	27,49	58,10	100,00	46,85	45,08	71,63	99,71	50,02	43,88	47,00	46,77	75,33	48,20	20,90	100,00	55,62	61,74	43,46	53,80	58,91	69,55	59,54
2008	43,41	29,14	74,78	100,00	47,30	46,38	71,99	99,77	50,79	44,36	47,05	50,22	77,65	48,22	14,00	100,00	55,40	61,54	46,72	56,93	57,45	70,28	61,04
2009	49,03	34,26	65,53	100,00	49,54	48,86	73,52	99,80	54,97	47,00	47,43	57,48	78,19	51,16	26,09	100,00	57,42	64,51	53,07	60,70	59,56	73,77	66,13
2010	48,45	33,54	63,67	100,00	50,10	49,56	74,23	99,66	56,09	47,62	47,00	55,86	79,06	51,82	25,88	100,00	57,61	64,63	52,37	58,36	59,88	74,06	67,66
2011	48,20	28,83	63,09	100,00	48,67	49,72	73,65	99,63	55,64	46,74	44,29	58,85	77,92	51,64	22,43	100,00	57,05	63,27	53,67	61,58	57,85	73,62	70,74
2012	46,91	29,66	66,31	100,00	48,95	48,80	72,99	99,68	55,65	46,85	43,40	59,49	79,32	52,38	18,96	100,00	56,47	64,29	54,26	61,81	57,96	73,87	70,36
2013	46,26	30,85	64,22	100,00	48,41	49,23	72,36	99,72	57,39	46,75	43,83	57,71	77,34	53,18	18,69	100,00	56,55	65,06	55,44	63,43	58,60	73,68	66,52
2014	44,80	31,65	61,02	100,00	48,68	49,99	72,31	99,76	58,34	46,69	43,85	58,89	75,97	54,18	18,10	100,00	56,44	63,96	54,14	63,39	58,46	73,39	66,39
2015	45,48	34,47	60,37	100,00	48,75	51,42	73,12	99,77	58,72	46,98	44,00	58,53	74,98	54,26	20,58	100,00	57,66	62,36	53,86	63,60	59,24	72,56	66,35
2016	44,50	34,43	61,73	100,00	48,60	52,46	73,66	99,81	58,27	47,35	43,80	57,50	74,33	54,42	16,03	100,00	58,82	61,34	52,94	62,53	59,79	70,95	66,72
2017	43,89	35,49	62,32	100,00	47,54	52,49	74,62	99,83	59,66	46,40	43,34	53,37	73,71	54,06	17,07	100,00	58,96	59,68	51,75	62,95	60,31	69,51	66,18
2018	42,89	37,79	61,49	100,00	46,65	53,16	74,35	99,83	59,66	47,94	42,72	52,27	72,59	52,89	14,45	100,00	58,47	58,48	51,15	62,56	59,89	68,73	66,05
2019	42,86	40,63	60,28	100,00	46,36	53,17	74,75	99,85	59,90	51,45	42,83	51,57	71,44	52,37	17,64	100,00	58,14	56,98	50,27	63,44	59,77	67,05	66,14

Source: Detailed in Data section for *Tax* variable

Table 5

## Index Rules of Entitlement to Social Benefits, 1990-2019

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	0,42	0,15	0,44	0,72	0,59	0,67	0,48	0,70	0,64	0,67	0,52	0,59	0,53	0,57	0,68	0,70	0,71	0,66	0,67	0,78	0,50	0,46	0,38
1991	0,43	0,15	0,44	0,73	0,60	0,67	0,48	0,70	0,65	0,67	0,51	0,56	0,53	0,58	0,68	0,72	0,71	0,66	0,72	0,77	0,49	0,46	0,39
1992	0,42	0,15	0,44	0,74	0,60	0,68	0,48	0,69	0,65	0,66	0,51	0,57	0,53	0,59	0,68	0,72	0,70	0,66	0,72	0,76	0,50	0,46	0,39
1993	0,43	0,15	0,44	0,73	0,59	0,68	0,49	0,69	0,65	0,63	0,51	0,58	0,56	0,60	0,68	0,71	0,70	0,66	0,71	0,75	0,51	0,46	0,39
1994	0,44	0,14	0,43	0,73	0,59	0,68	0,49	0,69	0,66	0,63	0,51	0,58	0,56	0,59	0,67	0,69	0,70	0,67	0,70	0,74	0,50	0,46	0,39
1995	0,44	0,14	0,42	0,73	0,60	0,68	0,49	0,67	0,64	0,63	0,51	0,59	0,56	0,59	0,63	0,69	0,69	0,67	0,70	0,74	0,50	0,47	0,39
1996	0,43	0,28	0,41	0,74	0,60	0,68	0,49	0,66	0,64	0,63	0,51	0,59	0,62	0,61	0,64	0,68	0,68	0,67	0,69	0,72	0,49	0,46	0,38
1997	0,43	0,28	0,41	0,74	0,60	0,68	0,49	0,65	0,62	0,62	0,51	0,59	0,62	0,61	0,63	0,68	0,69	0,67	0,69	0,72	0,48	0,45	0,38
1998	0,44	0,28	0,40	0,73	0,60	0,68	0,49	0,64	0,63	0,61	0,51	0,60	0,62	0,60	0,64	0,67	0,69	0,67	0,67	0,72	0,48	0,45	0,39
1999	0,43	0,28	0,45	0,73	0,59	0,68	0,49	0,64	0,62	0,61	0,50	0,60	0,61	0,62	0,64	0,71	0,70	0,67	0,66	0,66	0,48	0,46	0,38
2000	0,44	0,28	0,50	0,72	0,60	0,68	0,49	0,63	0,61	0,61	0,50	0,60	0,61	0,64	0,64	0,72	0,70	0,67	0,67	0,66	0,48	0,45	0,38
2001	0,44	0,28	0,50	0,72	0,62	0,68	0,48	0,63	0,61	0,60	0,50	0,60	0,62	0,64	0,65	0,72	0,70	0,69	0,66	0,66	0,47	0,45	0,38
2002	0,43	0,27	0,50	0,72	0,63	0,68	0,49	0,62	0,61	0,61	0,50	0,60	0,63	0,66	0,65	0,71	0,70	0,68	0,66	0,67	0,47	0,46	0,38
2003	0,42	0,29	0,50	0,71	0,63	0,69	0,48	0,62	0,60	0,60	0,50	0,60	0,63	0,66	0,66	0,71	0,69	0,64	0,66	0,67	0,48	0,46	0,38
2004	0,42	0,29	0,50	0,71	0,63	0,68	0,48	0,61	0,60	0,60	0,50	0,61	0,62	0,66	0,66	0,72	0,69	0,66	0,66	0,67	0,48	0,46	0,38
2005	0,42	0,29	0,50	0,71	0,62	0,68	0,48	0,61	0,60	0,60	0,50	0,61	0,62	0,65	0,66	0,72	0,69	0,66	0,66	0,66	0,47	0,46	0,38
2006	0,42	0,29	0,50	0,71	0,62	0,69	0,48	0,60	0,55	0,60	0,50	0,61	0,64	0,66	0,66	0,72	0,69	0,65	0,66	0,66	0,47	0,46	0,38
2007	0,42	0,28	0,50	0,70	0,62	0,69	0,47	0,61	0,55	0,60	0,50	0,60	0,65	0,66	0,66	0,70	0,69	0,66	0,65	0,65	0,47	0,46	0,38
2008	0,42	0,28	0,50	0,70	0,61	0,69	0,47	0,59	0,54	0,60	0,50	0,62	0,66	0,66	0,65	0,70	0,69	0,66	0,65	0,64	0,47	0,46	0,38
2009	0,43	0,29	0,48	0,69	0,61	0,70	0,47	0,59	0,54	0,60	0,50	0,62	0,61	0,66	0,66	0,70	0,70	0,66	0,65	0,63	0,48	0,53	0,39
2010	0,43	0,29	0,48	0,70	0,61	0,71	0,46	0,61	0,55	0,60	0,50	0,60	0,61	0,66	0,65	0,69	0,70	0,66	0,65	0,63	0,48	0,53	0,38
2011	0,43	0,28	0,48	0,70	0,61	0,70	0,46	0,60	0,55	0,60	0,49	0,61	0,62	0,63	0,65	0,69	0,71	0,67	0,65	0,63	0,48	0,53	0,38
2012	0,43	0,28	0,47	0,70	0,61	0,70	0,47	0,60	0,56	0,60	0,49	0,60	0,61	0,62	0,65	0,70	0,71	0,66	0,66	0,62	0,48	0,54	0,38
2013	0,43	0,28	0,47	0,70	0,61	0,69	0,46	0,60	0,57	0,60	0,50	0,61	0,61	0,63	0,64	0,69	0,71	0,67	0,67	0,62	0,48	0,54	0,38
2014	0,43	0,29	0,47	0,70	0,60	0,70	0,46	0,60	0,58	0,60	0,49	0,61	0,60	0,64	0,65	0,69	0,71	0,67	0,67	0,62	0,48	0,53	0,37
2015	0,42	0,29	0,47	0,70	0,62	0,69	0,46	0,59	0,58	0,60	0,49	0,61	0,59	0,64	0,64	0,69	0,71	0,68	0,67	0,62	0,48	0,53	0,37
2016	0,43	0,29	0,47	0,70	0,61	0,69	0,46	0,59	0,58	0,60	0,49	0,58	0,58	0,65	0,64	0,70	0,71	0,67	0,67	0,63	0,48	0,51	0,39
2017	0,42	0,30	0,47	0,70	0,61	0,69	0,48	0,60	0,57	0,60	0,49	0,57	0,58	0,65	0,65	0,70	0,72	0,67	0,67	0,63	0,48	0,53	0,39
2018	0,43	0,31	0,47	0,70	0,60	0,69	0,48	0,59	0,57	0,59	0,49	0,56	0,57	0,65	0,65	0,69	0,72	0,67	0,66	0,62	0,48	0,53	0,39
2019	0,43	0,32	0,47	0,70	0,59	0,70	0,48	0,59	0,56	0,60	0,49	0,49	0,57	0,65	0,64	0,69	0,71	0,67	0,66	0,62	0,48	0,53	0,39

Source: Detailed in Data section for *Eligibility* variable

**Table 6**

**Share of Public Spending in Overall Health Spending (%), 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	77,60	40,30	42,87	66,19	74,38	77,50	74,27	82,38	80,00	75,98	75,44	54,12	73,18	81,31	71,20	82,41	82,80	64,91	78,37	79,56	55,90	84,30	40,41
1991	78,30	37,90	47,22	66,02	74,42	76,80	74,31	83,22	80,30	75,63	79,80	54,22	73,66	81,15	72,80	82,24	84,00	62,09	77,10	77,83	56,80	83,60	41,93
1992	78,10	38,50	53,00	65,85	74,88	75,10	73,83	82,86	78,93	75,90	79,60	55,66	74,32	80,83	76,36	79,03	84,55	58,63	77,11	87,19	57,20	83,83	43,29
1993	79,20	40,30	51,54	65,66	75,19	74,70	72,41	82,27	75,36	75,83	79,00	55,63	74,78	78,56	77,32	76,63	84,34	62,11	76,27	87,35	57,60	84,40	44,37
1994	78,60	40,80	52,61	65,53	75,95	74,60	71,49	81,73	74,78	75,28	79,31	51,38	74,53	76,34	76,43	77,53	84,39	62,11	75,54	87,18	58,00	83,75	45,86
1995	81,80	43,10	74,22	66,37	75,26	76,80	70,95	82,03	71,23	79,10	80,20	52,86	74,11	71,26	75,38	77,17	83,86	61,48	72,04	86,63	55,38	84,06	46,33
1996	81,80	45,20	69,69	65,82	74,98	78,18	70,55	81,89	71,12	78,99	80,83	54,12	73,52	71,31	69,90	76,68	83,71	64,10	72,18	87,21	56,45	84,11	46,31
1997	80,80	48,80	67,34	67,32	75,48	75,38	69,76	81,69	71,39	79,09	79,53	53,90	74,60	71,25	71,16	77,29	80,64	64,41	72,21	85,93	57,07	75,69	46,13
1998	80,10	52,80	66,83	67,78	75,43	74,80	70,25	81,01	72,02	78,97	78,94	53,29	75,13	70,61	69,25	77,04	81,34	66,03	71,91	85,77	57,33	75,75	44,92
1999	80,10	52,60	66,67	69,70	75,65	74,58	69,76	83,17	71,21	78,92	78,68	54,80	75,48	70,96	68,56	77,48	81,59	66,50	71,75	85,86	57,91	76,47	44,51
2000	80,40	54,20	64,92	68,38	75,54	74,61	69,97	83,11	74,12	78,88	78,09	61,63	77,51	72,64	69,04	78,02	81,68	69,78	71,36	85,54	58,12	76,64	44,38
2001	81,00	58,10	64,15	67,76	75,01	75,41	69,71	83,41	74,58	78,91	78,05	63,21	78,44	74,62	69,63	76,42	82,80	70,21	71,03	82,15	59,37	77,91	45,32
2002	80,80	58,80	63,64	68,63	74,80	73,80	69,27	83,81	75,12	79,18	77,62	60,46	78,99	74,96	69,98	77,90	82,89	72,04	71,04	82,57	60,95	79,71	45,20
2003	80,00	58,40	62,98	68,05	74,50	74,18	69,95	83,91	75,47	78,78	77,12	59,86	78,76	75,33	70,16	78,34	83,17	70,65	71,10	83,13	61,63	78,43	44,97
2004	80,30	58,70	61,50	68,35	73,38	75,05	69,88	83,55	76,01	78,79	75,55	58,62	78,92	76,24	68,60	79,63	83,02	70,61	71,35	82,69	61,57	80,20	45,42
2005	81,20	58,20	60,09	68,40	73,98	74,85	69,86	83,74	76,16	78,69	75,34	60,83	78,87	77,49	68,42	79,68	83,05	70,94	71,56	82,29	63,06	81,24	45,48
2006	80,30	60,30	60,68	68,31	74,40	74,64	69,44	83,87	77,28	77,23	74,93	61,61	77,83	77,75	83,75	80,07	83,34	63,48	72,10	82,36	62,46	81,31	46,12
2007	81,20	60,80	61,01	69,31	74,37	74,23	69,59	83,71	77,18	77,02	74,92	63,34	79,23	77,49	84,07	82,40	83,70	62,76	72,30	82,52	62,43	81,50	46,16
2008	81,20	58,80	60,79	69,00	74,96	75,80	69,75	84,02	77,38	76,49	75,05	65,34	79,32	77,68	82,67	80,86	84,19	62,55	73,28	82,50	63,56	81,15	47,32
2009	81,30	60,30	61,53	69,30	75,10	76,34	70,20	84,46	77,52	76,51	83,33	68,33	77,07	78,31	83,18	81,06	84,49	63,86	75,07	82,51	64,08	80,83	48,34
2010	81,90	60,00	61,65	68,64	74,65	76,28	69,88	84,24	77,08	76,26	83,24	68,93	76,18	78,45	83,38	81,17	84,73	66,56	74,45	82,49	64,16	80,66	48,69
2011	83,70	59,10	61,52	69,21	74,61	76,21	70,23	83,91	77,61	76,00	83,11	65,89	72,07	77,01	82,66	80,88	84,42	64,56	73,48	84,48	64,81	80,60	48,79
2012	83,90	58,20	61,98	67,54	74,68	76,49	70,50	84,34	78,19	76,09	82,98	66,25	71,92	75,88	82,11	80,50	84,76	61,34	72,11	84,22	66,11	80,34	48,71
2013	84,30	58,30	62,21	64,97	74,01	76,02	70,91	84,43	77,95	76,16	83,83	62,90	70,80	75,76	81,15	80,05	85,02	62,35	71,01	84,02	66,32	80,09	49,43
2014	84,10	57,80	62,34	67,56	74,01	76,15	70,75	84,42	78,02	76,37	84,21	58,86	71,20	75,43	81,08	79,56	85,29	61,80	70,26	84,03	66,91	80,18	82,57
2015	84,10	57,90	62,51	68,59	74,06	76,41	70,84	84,23	76,94	76,58	84,19	60,04	71,79	74,44	81,38	78,99	85,52	61,73	71,32	83,96	67,22	80,15	82,89
2016	84,00	57,90	62,67	68,80	73,96	76,80	69,84	84,16	76,23	82,98	84,35	61,64	72,47	74,40	81,19	78,65	85,38	61,66	71,55	84,26	67,93	80,58	82,82
2017	84,20	58,40	63,33	69,03	74,02	76,76	69,62	83,96	76,42	83,09	84,39	60,74	73,00	73,74	81,69	78,59	85,12	61,23	70,51	84,71	67,99	79,99	82,85
2018	83,80	58,90	63,55	69,54	74,67	76,63	69,69	83,75	76,96	83,35	84,12	59,35	74,03	73,86	82,11	79,22	85,70	61,23	70,22	84,79	67,76	79,33	82,88
2019	84,00	59,40	63,54	71,89	75,07	75,26	69,51	83,71	77,87	83,56	83,98	61,65	74,25	73,75	82,80	79,63	85,72	60,85	70,55	85,12	67,40	79,29	82,73

Source: Detailed in Data section for *PublicH* variable

**Table 7**

**Share of Public Spending in Overall Pensions Spending (%), 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	96,99	75,13	88,70	79,85	95,64	88,77	60,29	83,99	95,61	98,36	91,35	96,66	82,24	89,31	71,70	90,91	92,69	94,66	95,49	87,51	73,47	55,62	65,68
1991	96,85	76,59	88,40	78,08	95,83	89,24	59,64	83,97	95,80	98,44	92,45	96,49	82,34	88,25	71,13	91,90	92,47	94,51	95,48	84,17	73,01	55,45	65,91
1992	96,86	78,68	90,09	76,89	95,96	88,36	58,16	83,74	96,03	98,55	93,13	96,42	82,34	87,00	69,90	91,35	92,54	95,33	95,49	87,36	72,32	54,64	64,59
1993	96,77	80,80	88,71	74,07	96,15	85,38	57,13	82,55	96,18	98,55	93,13	96,37	82,37	88,74	68,88	91,22	92,41	95,62	95,53	81,75	71,70	54,46	65,09
1994	96,62	79,66	87,56	73,21	96,33	85,80	56,16	82,10	96,29	98,81	93,28	96,26	82,11	89,78	66,82	91,01	92,03	96,33	95,77	82,61	69,84	53,78	64,18
1995	96,48	80,61	83,59	71,40	96,40	84,45	55,11	81,39	96,65	98,98	93,35	96,22	77,66	88,92	64,73	91,42	91,89	97,32	95,99	82,60	69,13	53,75	63,10
1996	96,14	79,73	88,26	69,92	96,34	82,89	53,80	79,30	96,77	98,80	93,46	96,09	76,32	90,64	65,61	90,63	91,45	97,10	96,16	82,91	67,66	53,07	60,41
1997	63,78	72,38	89,89	65,63	95,84	83,30	52,67	78,49	96,77	98,70	93,64	96,28	75,34	90,35	66,39	90,20	91,54	97,39	96,25	82,29	67,29	51,64	59,35
1998	63,91	65,96	88,37	69,04	95,65	83,79	50,45	77,83	96,80	98,63	93,75	96,47	75,10	90,66	66,16	90,10	91,62	96,39	96,25	82,69	66,26	53,14	59,08
1999	64,37	82,39	86,88	62,73	95,32	84,06	50,20	77,24	97,01	98,61	93,52	96,46	75,25	90,98	64,85	89,75	91,87	97,00	96,29	83,57	65,07	52,38	57,79
2000	65,67	66,51	91,15	66,15	94,80	85,59	49,17	76,73	97,21	98,70	93,53	99,51	46,59	91,19	62,49	89,29	91,78	97,42	95,67	83,76	62,82	48,94	57,29
2001	64,47	69,48	81,92	61,72	95,49	84,08	48,59	76,51	97,37	98,68	93,10	99,35	46,53	90,94	64,03	89,77	91,83	97,18	95,62	83,62	62,59	52,16	57,67
2002	65,35	73,25	82,39	61,51	95,92	83,10	48,00	76,03	97,40	98,63	93,52	99,43	66,03	91,01	62,12	89,75	91,75	97,01	95,63	82,97	62,72	55,55	58,25
2003	69,73	73,00	85,51	66,26	95,89	83,54	48,31	75,43	97,47	98,60	93,50	99,14	70,10	90,04	60,98	88,75	90,81	98,35	95,60	84,17	62,51	55,61	58,73
2004	70,98	72,96	86,34	73,72	96,00	83,42	47,21	74,94	97,53	98,56	93,28	99,44	65,84	91,14	61,37	89,90	92,35	97,68	95,52	84,47	60,59	56,80	58,50
2005	74,38	76,54	81,87	71,36	95,53	84,39	46,63	76,65	97,74	98,49	93,28	99,26	64,50	91,90	61,80	88,90	91,81	97,06	95,59	82,73	60,69	55,99	58,19
2006	75,18	77,39	83,13	68,28	95,10	84,62	46,66	79,34	97,78	97,37	92,96	99,44	64,90	91,47	59,88	88,70	91,66	97,28	95,57	82,58	59,47	54,55	56,23
2007	71,84	77,95	83,05	50,93	94,62	86,55	48,03	74,48	97,77	97,60	92,58	99,46	67,78	91,69	58,36	88,72	91,53	98,17	95,59	81,88	59,27	58,60	54,95
2008	73,01	81,24	81,80	56,33	94,40	86,63	52,03	75,72	97,79	97,73	92,36	99,48	70,19	91,73	58,40	88,40	91,98	98,16	95,68	79,45	59,36	59,14	56,64
2009	72,40	79,19	81,54	56,37	94,65	85,98	53,72	75,18	97,94	97,92	92,48	99,02	71,04	92,21	58,38	88,72	91,99	98,51	95,71	79,07	59,69	58,48	60,76
2010	73,47	81,39	85,55	56,06	94,75	88,50	51,18	77,43	98,24	98,06	92,45	99,22	74,01	91,98	58,08	86,74	91,85	98,34	95,54	78,14	59,62	58,16	57,44
2011	73,27	79,35	85,52	55,50	94,58	88,26	51,51	78,58	98,07	98,10	92,32	98,93	77,67	92,24	57,15	87,08	91,84	97,51	95,77	75,31	59,94	57,97	57,43
2012	72,67	79,58	82,89	55,27	94,65	88,51	51,29	79,94	98,33	98,12	92,15	98,72	76,46	92,31	56,93	86,45	91,93	97,80	96,01	76,08	59,67	57,64	56,12
2013	73,92	80,22	77,83	55,01	94,67	89,44	50,46	76,40	98,44	98,06	92,05	98,62	74,53	92,65	56,98	85,82	90,88	97,78	96,04	75,68	59,79	57,15	55,60
2014	75,02	79,28	75,58	53,07	94,60	89,77	50,04	75,57	98,48	98,11	92,07	98,71	75,95	92,77	57,10	85,13	90,33	97,45	96,36	75,33	59,37	57,43	55,29
2015	75,87	76,24	74,42	52,69	94,43	90,33	48,65	78,03	98,54	98,08	92,21	99,19	75,63	92,72	56,43	84,90	89,74	94,62	96,25	74,72	59,16	56,77	55,07
2016	76,78	76,07	69,02	51,11	94,46	90,48	49,62	80,80	98,63	98,03	92,27	99,07	76,45	92,94	56,45	84,17	89,75	96,70	96,19	75,27	58,87	56,56	56,16
2017	77,26	78,19	65,62	52,09	94,48	90,22	44,99	80,98	98,69	97,99	92,38	99,17	74,79	92,89	56,34	83,65	89,77	94,67	96,53	75,09	58,41	53,20	54,99
2018	77,45	77,59	64,47	53,20	94,33	89,99	45,35	82,54	98,76	98,00	92,44	99,07	76,63	92,71	56,47	83,15	89,82	96,50	96,59	75,47	57,84	52,54	54,23
2019	76,79	76,61	62,51	59,19	94,21	91,96	46,45	82,62	98,86	97,97	92,71	98,74	75,54	92,84	56,72	82,64	89,85	96,75	97,26	75,79	57,37	50,35	53,81

Source: Detailed in Data section for *PublicP* variable

**Table 8**

**Index Coverage Rate of Unemployment, Sickness, and Pension Benefits, 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	0,69	0,00	0,32	0,90	0,87	0,91	0,88	0,89	0,89	0,93	0,89	0,65	0,83	0,73	0,91	0,99	0,95	0,85	0,83	0,93	0,96	0,87	0,92
1991	0,70	0,00	0,33	0,89	0,87	0,92	0,86	0,90	0,90	0,93	0,91	0,66	0,79	0,73	0,91	0,99	0,96	0,84	0,83	0,93	0,94	0,88	0,91
1992	0,71	0,00	0,35	0,90	0,87	0,92	0,86	0,91	0,91	0,93	0,92	0,65	0,78	0,73	0,92	0,98	0,96	0,85	0,82	0,94	0,95	0,86	0,91
1993	0,73	0,00	0,36	0,90	0,87	0,92	0,85	0,92	0,92	0,94	0,91	0,65	0,76	0,74	0,91	0,98	0,97	0,84	0,80	0,95	0,95	0,85	0,91
1994	0,73	0,00	0,37	0,91	0,85	0,93	0,86	0,93	0,92	0,94	0,91	0,64	0,78	0,74	0,90	0,97	0,97	0,86	0,80	0,96	0,95	0,85	0,91
1995	0,73	0,00	0,37	0,90	0,85	0,92	0,86	0,93	0,92	0,94	0,92	0,64	0,79	0,73	0,93	0,97	0,97	0,88	0,80	0,95	0,95	0,86	0,92
1996	0,73	0,07	0,37	0,90	0,85	0,90	0,85	0,93	0,92	0,94	0,93	0,64	0,91	0,73	0,91	0,97	0,97	0,85	0,81	0,95	0,95	0,86	0,92
1997	0,73	0,07	0,38	0,90	0,85	0,88	0,85	0,92	0,92	0,94	0,93	0,64	0,95	0,73	0,91	0,97	0,97	0,85	0,82	0,95	0,98	0,88	0,92
1998	0,73	0,09	0,39	0,90	0,85	0,89	0,85	0,92	0,92	0,94	0,92	0,65	0,93	0,73	0,93	0,97	0,97	0,79	0,84	0,95	0,98	0,88	0,93
1999	0,72	0,10	0,58	0,90	0,85	0,89	0,86	0,91	0,92	0,95	0,93	0,64	0,98	0,73	0,93	0,97	0,97	0,80	0,86	0,94	0,98	0,90	0,93
2000	0,72	0,13	0,59	0,88	0,85	0,91	0,87	0,92	0,91	0,96	0,91	0,66	0,99	0,73	0,93	0,98	0,97	0,83	0,86	0,94	0,99	0,91	0,94
2001	0,72	0,14	0,59	0,88	0,86	0,92	0,87	0,92	0,91	0,96	0,92	0,68	0,99	0,73	0,93	1,00	0,97	0,85	0,88	0,92	0,98	0,92	0,93
2002	0,72	0,15	0,60	0,88	0,86	0,93	0,87	0,92	0,91	0,96	0,91	0,69	1,00	0,74	0,92	0,99	0,96	0,85	0,87	0,92	0,99	0,92	0,93
2003	0,72	0,15	0,61	0,91	0,87	0,94	0,87	0,92	0,92	0,96	0,90	0,70	1,00	0,74	0,93	0,99	0,96	0,84	0,86	0,93	0,99	0,90	0,92
2004	0,72	0,17	0,60	0,91	0,88	0,94	0,87	0,91	0,92	0,96	0,89	0,71	1,00	0,73	0,92	0,99	0,96	0,85	0,87	0,93	0,99	0,91	0,92
2005	0,73	0,18	0,61	0,91	0,87	0,93	0,87	0,89	0,92	0,96	0,87	0,71	1,00	0,74	0,93	1,00	0,96	0,85	0,87	0,93	1,00	0,91	0,92
2006	0,73	0,20	0,62	0,91	0,87	0,94	0,87	0,90	0,91	0,96	0,86	0,72	1,00	0,74	0,93	0,99	0,97	0,85	0,88	0,92	0,99	0,90	0,92
2007	0,74	0,21	0,63	0,90	0,86	0,93	0,87	0,91	0,91	0,96	0,87	0,72	1,00	0,75	0,93	0,99	0,97	0,85	0,88	0,90	0,99	0,90	0,94
2008	0,74	0,22	0,61	0,91	0,86	0,94	0,88	0,90	0,91	0,96	0,87	0,73	1,00	0,75	0,92	1,00	0,97	0,86	0,84	0,88	0,99	0,90	0,94
2009	0,73	0,23	0,62	0,91	0,85	0,95	0,86	0,90	0,92	0,96	0,87	0,72	0,99	0,75	0,92	1,00	0,97	0,86	0,82	0,88	0,99	0,89	0,92
2010	0,73	0,24	0,63	0,91	0,85	0,93	0,87	0,91	0,92	0,95	0,89	0,70	0,99	0,75	0,92	1,00	0,97	0,86	0,82	0,87	0,98	0,89	0,92
2011	0,73	0,25	0,66	0,91	0,91	0,94	0,86	0,91	0,91	0,95	0,89	0,67	0,99	0,75	0,92	1,00	0,97	0,86	0,81	0,87	0,99	0,89	0,92
2012	0,74	0,26	0,69	0,90	0,91	0,94	0,86	0,91	0,91	0,95	0,89	0,63	0,99	0,75	0,92	1,00	0,97	0,85	0,78	0,87	0,99	0,88	0,92
2013	0,74	0,26	0,71	0,90	0,92	0,93	0,86	0,91	0,91	0,95	0,89	0,62	0,98	0,75	0,92	1,00	0,97	0,84	0,78	0,87	0,98	0,89	0,93
2014	0,75	0,26	0,72	0,90	0,90	0,93	0,87	0,91	0,91	0,94	0,90	0,65	0,99	0,75	0,92	1,00	0,97	0,84	0,80	0,87	0,98	0,89	0,94
2015	0,75	0,26	0,73	0,90	0,92	0,93	0,86	0,91	0,91	0,94	0,90	0,66	1,00	0,75	0,92	1,00	0,96	0,85	0,81	0,87	0,98	0,90	0,94
2016	0,76	0,27	0,74	0,90	0,92	0,96	0,86	0,91	0,91	0,94	0,91	0,67	1,00	0,75	0,92	1,00	0,96	0,86	0,83	0,87	0,98	0,90	0,94
2017	0,76	0,28	0,75	0,89	0,93	0,96	0,86	0,91	0,90	0,95	0,91	0,68	0,95	0,76	0,92	1,00	0,97	0,86	0,85	0,87	0,98	0,90	0,94
2018	0,76	0,28	0,76	0,88	0,95	0,96	0,86	0,91	0,90	0,95	0,92	0,69	0,95	0,76	0,91	1,00	0,97	0,87	0,85	0,86	0,98	0,91	0,93
2019	0,76	0,28	0,76	0,88	0,95	0,96	0,86	0,90	0,90	0,95	0,92	0,69	0,95	0,76	0,91	1,00	0,97	0,87	0,85	0,86	0,98	0,91	0,93

Source: Detailed in Data section for *Coverage* variable

**Table 9**

**Post-normalization Values for Coverage, 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	0,69	0,00	0,32	0,90	0,87	0,91	0,88	0,89	0,89	0,93	0,89	0,65	0,83	0,73	0,91	0,99	0,95	0,85	0,83	0,93	0,96	0,87	0,92
1991	0,70	0,00	0,33	0,89	0,87	0,92	0,86	0,90	0,90	0,93	0,91	0,66	0,79	0,73	0,91	0,99	0,96	0,84	0,83	0,93	0,94	0,88	0,91
1992	0,71	0,00	0,35	0,90	0,87	0,92	0,86	0,91	0,91	0,93	0,92	0,65	0,78	0,73	0,92	0,98	0,96	0,85	0,82	0,94	0,95	0,86	0,91
1993	0,73	0,00	0,36	0,90	0,87	0,92	0,85	0,92	0,92	0,94	0,91	0,65	0,76	0,74	0,91	0,98	0,97	0,84	0,80	0,95	0,95	0,85	0,91
1994	0,73	0,00	0,37	0,91	0,85	0,93	0,86	0,93	0,92	0,94	0,91	0,64	0,78	0,74	0,90	0,97	0,97	0,86	0,80	0,96	0,95	0,85	0,91
1995	0,73	0,00	0,37	0,90	0,85	0,92	0,86	0,93	0,92	0,94	0,92	0,64	0,79	0,73	0,93	0,97	0,97	0,88	0,80	0,95	0,95	0,86	0,92
1996	0,73	0,07	0,37	0,90	0,85	0,90	0,85	0,93	0,92	0,94	0,93	0,64	0,91	0,73	0,91	0,97	0,97	0,85	0,81	0,95	0,95	0,86	0,92
1997	0,73	0,07	0,38	0,90	0,85	0,88	0,85	0,92	0,92	0,94	0,93	0,64	0,95	0,73	0,91	0,97	0,97	0,85	0,82	0,95	0,98	0,88	0,92
1998	0,73	0,09	0,39	0,90	0,85	0,89	0,85	0,92	0,92	0,94	0,92	0,65	0,93	0,73	0,93	0,97	0,97	0,79	0,84	0,95	0,98	0,88	0,93
1999	0,72	0,10	0,57	0,90	0,85	0,89	0,86	0,91	0,92	0,95	0,93	0,64	0,98	0,73	0,93	0,97	0,97	0,80	0,86	0,94	0,98	0,90	0,93
2000	0,72	0,13	0,59	0,88	0,85	0,91	0,87	0,92	0,91	0,96	0,91	0,66	0,99	0,73	0,93	0,98	0,97	0,83	0,86	0,94	0,99	0,91	0,94
2001	0,72	0,14	0,59	0,88	0,86	0,92	0,87	0,92	0,91	0,96	0,92	0,68	0,99	0,73	0,93	1,00	0,97	0,85	0,88	0,92	0,98	0,92	0,93
2002	0,72	0,15	0,60	0,88	0,86	0,93	0,87	0,92	0,91	0,96	0,91	0,69	1,00	0,74	0,92	0,99	0,96	0,85	0,87	0,92	0,99	0,92	0,93
2003	0,72	0,15	0,61	0,91	0,87	0,94	0,87	0,92	0,92	0,96	0,90	0,70	1,00	0,74	0,93	0,99	0,96	0,84	0,86	0,93	0,99	0,90	0,92
2004	0,72	0,17	0,60	0,91	0,88	0,94	0,87	0,91	0,92	0,96	0,89	0,71	1,00	0,73	0,92	0,99	0,96	0,85	0,87	0,93	0,99	0,91	0,92
2005	0,73	0,18	0,61	0,91	0,87	0,93	0,87	0,89	0,92	0,96	0,87	0,71	1,00	0,74	0,93	1,00	0,96	0,85	0,87	0,93	1,00	0,91	0,92
2006	0,73	0,20	0,62	0,91	0,87	0,94	0,87	0,90	0,91	0,96	0,86	0,72	1,00	0,74	0,93	0,99	0,97	0,85	0,88	0,92	0,99	0,90	0,92
2007	0,74	0,21	0,63	0,90	0,86	0,93	0,87	0,91	0,91	0,96	0,87	0,72	1,00	0,75	0,93	0,99	0,97	0,85	0,88	0,90	0,99	0,90	0,94
2008	0,74	0,22	0,61	0,91	0,86	0,94	0,87	0,90	0,91	0,96	0,87	0,73	1,00	0,75	0,92	1,00	0,97	0,86	0,84	0,88	0,99	0,90	0,94
2009	0,72	0,23	0,62	0,91	0,85	0,95	0,86	0,90	0,92	0,96	0,87	0,72	0,99	0,75	0,92	1,00	0,97	0,86	0,82	0,88	0,99	0,89	0,92
2010	0,73	0,24	0,63	0,91	0,85	0,93	0,87	0,91	0,92	0,95	0,89	0,70	0,99	0,75	0,92	1,00	0,97	0,86	0,82	0,87	0,98	0,89	0,92
2011	0,73	0,25	0,66	0,91	0,91	0,94	0,86	0,91	0,91	0,95	0,89	0,67	0,99	0,75	0,92	1,00	0,97	0,86	0,81	0,87	0,99	0,89	0,92
2012	0,74	0,26	0,69	0,90	0,91	0,94	0,86	0,91	0,91	0,95	0,89	0,63	0,99	0,75	0,92	1,00	0,97	0,85	0,78	0,87	0,99	0,88	0,92
2013	0,74	0,26	0,71	0,90	0,92	0,93	0,86	0,91	0,91	0,95	0,89	0,62	0,98	0,75	0,92	1,00	0,97	0,84	0,78	0,87	0,98	0,89	0,93
2014	0,75	0,26	0,72	0,90	0,90	0,93	0,87	0,91	0,91	0,94	0,90	0,65	0,99	0,75	0,92	1,00	0,97	0,84	0,80	0,87	0,98	0,89	0,94
2015	0,75	0,26	0,73	0,90	0,92	0,93	0,86	0,91	0,91	0,94	0,90	0,66	1,00	0,75	0,92	1,00	0,96	0,85	0,81	0,87	0,98	0,90	0,94
2016	0,76	0,27	0,74	0,90	0,92	0,96	0,86	0,91	0,91	0,94	0,91	0,67	1,00	0,75	0,92	1,00	0,96	0,86	0,83	0,87	0,98	0,90	0,94
2017	0,76	0,28	0,75	0,89	0,93	0,96	0,86	0,91	0,90	0,95	0,91	0,68	0,95	0,76	0,92	1,00	0,97	0,86	0,85	0,87	0,98	0,90	0,94
2018	0,76	0,28	0,76	0,88	0,95	0,96	0,86	0,91	0,90	0,95	0,92	0,69	0,95	0,76	0,91	1,00	0,97	0,87	0,85	0,86	0,98	0,91	0,93
2019	0,76	0,28	0,76	0,88	0,95	0,96	0,86	0,90	0,90	0,95	0,92	0,69	0,95	0,76	0,91	1,00	0,97	0,87	0,85	0,86	0,98	0,91	0,93

Source: Detailed in Data section for Coverage variable

**Table 10**

**Post-normalization Values for Coverage Excluding South Korea and Taiwan, 1990-2019**

	JPN	KOR	TWN	AUS	AUT	BEL	CAN	DNK	FIN	FRA	DEU	GRC	IRL	ITA	NLD	NZL	NOR	PRT	ESP	SWE	CHE	GBR	USA
1990	0,19	-	-	0,72	0,66	0,77	0,67	0,71	0,71	0,82	0,71	0,08	0,54	0,29	0,77	0,97	0,88	0,60	0,56	0,80	0,90	0,65	0,79
1991	0,20	-	-	0,72	0,67	0,79	0,64	0,73	0,73	0,82	0,77	0,09	0,45	0,29	0,77	0,96	0,89	0,56	0,56	0,82	0,85	0,67	0,77
1992	0,23	-	-	0,73	0,67	0,79	0,62	0,77	0,77	0,82	0,78	0,06	0,41	0,29	0,79	0,95	0,90	0,61	0,53	0,85	0,87	0,64	0,75
1993	0,27	-	-	0,75	0,67	0,79	0,61	0,78	0,78	0,83	0,77	0,06	0,37	0,31	0,75	0,94	0,92	0,58	0,48	0,88	0,88	0,61	0,76
1994	0,29	-	-	0,76	0,60	0,80	0,62	0,82	0,79	0,84	0,76	0,05	0,42	0,30	0,72	0,93	0,92	0,62	0,47	0,88	0,87	0,61	0,77
1995	0,29	-	-	0,74	0,59	0,80	0,62	0,81	0,79	0,84	0,79	0,05	0,44	0,29	0,80	0,93	0,93	0,68	0,48	0,88	0,87	0,64	0,78
1996	0,29	-	-	0,74	0,60	0,74	0,61	0,80	0,79	0,84	0,82	0,05	0,75	0,29	0,77	0,93	0,92	0,59	0,48	0,87	0,88	0,64	0,78
1997	0,28	-	-	0,75	0,61	0,68	0,60	0,80	0,79	0,85	0,81	0,05	0,86	0,29	0,76	0,92	0,92	0,59	0,52	0,86	0,96	0,68	0,79
1998	0,27	-	-	0,73	0,61	0,72	0,61	0,80	0,79	0,85	0,79	0,06	0,83	0,28	0,81	0,93	0,92	0,44	0,57	0,86	0,96	0,67	0,81
1999	0,27	-	-	0,73	0,61	0,70	0,62	0,76	0,78	0,86	0,82	0,04	0,95	0,28	0,81	0,92	0,92	0,47	0,62	0,85	0,96	0,74	0,82
2000	0,27	-	-	0,67	0,61	0,76	0,64	0,79	0,77	0,88	0,76	0,09	0,97	0,28	0,81	0,96	0,93	0,54	0,64	0,83	0,96	0,75	0,83
2001	0,26	-	-	0,68	0,62	0,80	0,66	0,79	0,77	0,88	0,79	0,14	0,97	0,29	0,80	0,99	0,93	0,61	0,69	0,78	0,96	0,78	0,83
2002	0,25	-	-	0,67	0,64	0,80	0,66	0,79	0,77	0,88	0,76	0,17	0,99	0,30	0,80	0,98	0,90	0,59	0,66	0,80	0,97	0,78	0,80
2003	0,25	-	-	0,77	0,64	0,85	0,66	0,78	0,78	0,88	0,73	0,20	1,00	0,30	0,81	0,98	0,89	0,57	0,64	0,81	0,98	0,74	0,78
2004	0,26	-	-	0,76	0,67	0,83	0,66	0,77	0,79	0,88	0,71	0,23	1,00	0,29	0,80	0,98	0,89	0,59	0,64	0,83	0,98	0,75	0,79
2005	0,28	-	-	0,76	0,66	0,82	0,66	0,70	0,78	0,88	0,66	0,23	1,00	0,31	0,82	0,99	0,89	0,59	0,66	0,81	0,99	0,75	0,79
2006	0,29	-	-	0,75	0,65	0,83	0,67	0,74	0,77	0,88	0,64	0,26	1,00	0,32	0,82	0,98	0,92	0,60	0,67	0,80	0,98	0,74	0,79
2007	0,32	-	-	0,75	0,62	0,82	0,67	0,75	0,77	0,89	0,64	0,24	1,00	0,33	0,80	0,98	0,93	0,61	0,69	0,74	0,98	0,74	0,85
2008	0,32	-	-	0,76	0,62	0,84	0,67	0,74	0,76	0,88	0,66	0,29	1,00	0,34	0,79	0,99	0,92	0,64	0,58	0,68	0,98	0,73	0,83
2009	0,27	-	-	0,76	0,60	0,86	0,64	0,74	0,78	0,88	0,67	0,26	0,96	0,35	0,78	1,00	0,91	0,64	0,53	0,68	0,98	0,71	0,78
2010	0,28	-	-	0,75	0,61	0,82	0,65	0,75	0,78	0,88	0,71	0,20	0,96	0,34	0,78	1,00	0,92	0,64	0,52	0,66	0,96	0,71	0,78
2011	0,29	-	-	0,75	0,75	0,84	0,64	0,76	0,77	0,88	0,70	0,12	0,98	0,34	0,78	1,00	0,93	0,64	0,49	0,66	0,96	0,70	0,79
2012	0,30	-	-	0,74	0,75	0,83	0,64	0,75	0,77	0,87	0,72	0,02	0,97	0,34	0,78	1,00	0,92	0,60	0,42	0,66	0,96	0,69	0,80
2013	0,31	-	-	0,74	0,78	0,82	0,64	0,76	0,77	0,87	0,72	0,00	0,94	0,34	0,79	1,00	0,92	0,59	0,42	0,66	0,96	0,69	0,82
2014	0,33	-	-	0,73	0,75	0,82	0,64	0,76	0,77	0,85	0,73	0,06	0,97	0,34	0,79	1,00	0,93	0,58	0,46	0,65	0,96	0,72	0,84
2015	0,34	-	-	0,73	0,79	0,81	0,63	0,76	0,77	0,85	0,74	0,09	1,00	0,34	0,79	1,00	0,90	0,60	0,50	0,66	0,96	0,73	0,83
2016	0,36	-	-	0,72	0,79	0,90	0,63	0,75	0,76	0,85	0,75	0,12	1,00	0,35	0,80	1,00	0,90	0,62	0,55	0,65	0,96	0,74	0,83
2017	0,37	-	-	0,70	0,83	0,89	0,64	0,75	0,74	0,86	0,77	0,15	0,86	0,36	0,79	1,00	0,91	0,64	0,60	0,65	0,96	0,75	0,84
2018	0,37	-	-	0,67	0,87	0,89	0,64	0,75	0,73	0,86	0,79	0,18	0,86	0,36	0,77	1,00	0,92	0,66	0,60	0,64	0,96	0,75	0,83
2019	0,37	-	-	0,67	0,87	0,89	0,64	0,75	0,73	0,86	0,79	0,18	0,86	0,37	0,77	1,00	0,92	0,66	0,60	0,64	0,96	0,75	0,82

Source: Detailed in Data section for Coverage variable