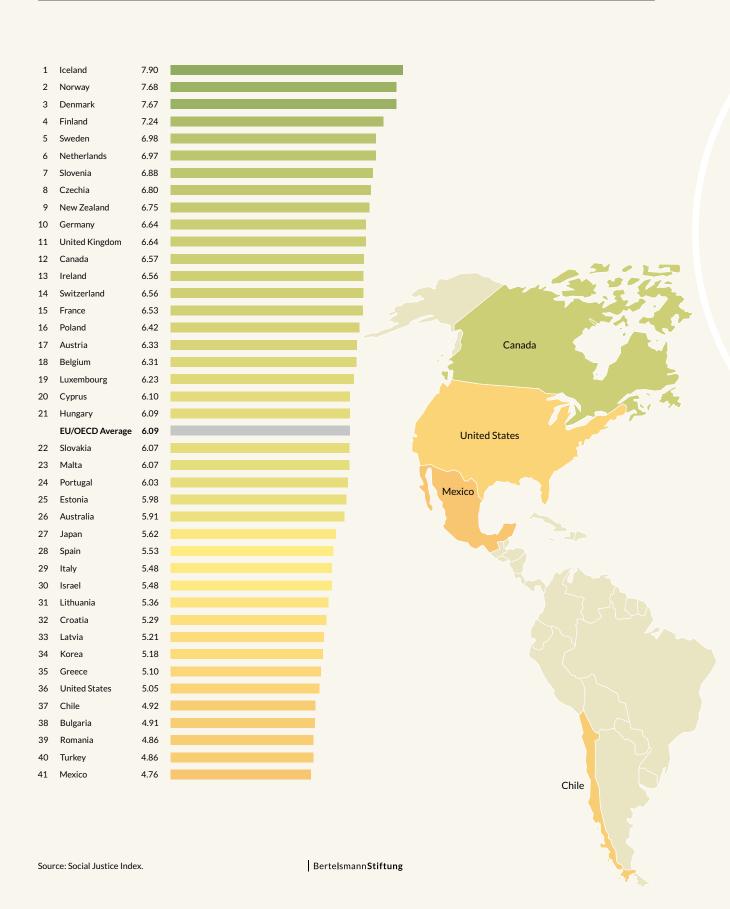


# Social Justice in the EU and OECD Index Report 2019

Thorsten Hellmann, Pia Schmidt, Sascha Matthias Heller

Bertelsmann Stiftung

# EU and OECD Social Justice Index 2019





# Social Justice in the EU and OECD Index Report 2019

Thorsten Hellmann, Pia Schmidt, Sascha Matthias Heller

BertelsmannStiftung

# Table of content

I.	In a nutshell	6
	1. Key findings, by country	v 6
	2. Key findings, by dimens	ion 12
II.	Dimensions of social justice	:
	empirical findings 2019	19
	1. Poverty Prevention	19
	2. Equitable Education	40
	3. Labor Market Access	55
	4. Social Inclusion and	
	Non-discrimination	75
	5. Intergenerational Justic	e 92
	6. Health	117
III.	Concept and Methodology	129
IV.	Forty-one country profiles	140
	Australia	140
	Austria	141
	Belgium	143
	Bulgaria	144
	Canada	146
	Chile	147
	Croatia	148
	Cyprus	150
	Czechia	151
	Denmark	153
	Estonia	155
	Finland	156
	France	157
	Germany	159
	Greece	160

Hungary	162
Iceland	163
Ireland	165
Israel	166
Italy	167
Japan	169
Korea	170
Latvia	172
Lithuania	173
Luxembourg	174
Malta	176
Mexico	177
Netherlands	179
New Zealand	180
Norway	182
Poland	183
Portugal	185
Romania	186
Slovakia	187
Slovenia	189
Spain	190
Sweden	192
Switzerland	193
Turkey	195
United Kingdom	196
United States	198
References	200
Figures	206
Appendix	208
Publishing information	270

# I. In a nutshell

With the onset of the economic and financial crisis, social justice has deteriorated – on average – in the OECD and EU countries surveyed by the SJI.<sup>1</sup> While the Social Justice Index shows a slight but ongoing upward trend since economic recovery began in 2014, the overall score remains below the pre-crisis level. In addition, there are still striking discrepancies with regard to available opportunities to participate in society in the 41 countries surveyed.

### 1. Key findings, by country

# Nordic countries still set the standard, but Sweden is losing ground in some areas

Topping this year's Social Justice Index are Iceland, Norway, Denmark, Finland and Sweden, five countries from northern Europe. The success registered among Nordic countries is broad-based, as Iceland, Finland, Norway and Denmark are among the top 10 in the dimensions of poverty prevention, equitable education, social inclusion and non-discrimination, and intergenerational justice. Iceland also ranks first in terms of labor market access and 7<sup>th</sup> in terms of the health dimension. Sweden, which is currently ranked 6<sup>th</sup> in the overall ranking, has lost considerable ground in some areas over the last ten years. Since 2008, the risk of poverty among the Swedish population rose from 7.2% to 9.5% (rank 18) and increased significantly from 7.9% to 12.3% among children. Also striking is the country's ongoing poor performance in terms of labor market access, landing Sweden at rank 30. Although employment is high and the share of low-income earners is low, in addition to the relatively high unemployment rate (6.5%, rank 29), there are clear weaknesses in the integration of young people (rank 31), the low-skilled (rank 36) and foreigners (rank 41) into the labor market. However, the country continues to take the lead in terms of intergenerational justice. The Nordic countries overall work hard to take account of younger generations' concerns in today's politics, particularly in the areas of environmental protection and climate change.

<sup>1</sup> For the first time, the Social Justice Index includes not only EU but also OECD member states. As a result, we had to revise the set of indicators used, which means the findings for the SJI 2019 are not comparable with previous editions.

### FIGURE 1 Social Justice Index 2019 (weighted)

Unit: Score

				So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	7.80	7.63	7.79	7.81	7.75	8.00	8.03	7.90	0.10
2	Norway	7.52	7.54	7.76	7.71	7.65	7.63	7.62	7.68	0.16
3	Denmark	7.47	7.14	7.35	7.46	7.38	7.61	7.61	7.67	0.20
4	Finland	7.25	7.33	7.33	7.38	7.35	7.35	7.31	7.24	-0.01
5	Sweden	7.33	7.16	7.02	7.06	7.01	6.96	7.03	6.98	-0.35
6	Netherlands	7.21	7.20	7.13	7.06	7.03	6.94	6.95	6.97	-0.25
7	Slovenia			6.28	6.30	6.44	6.59	6.82	6.88	
8	Czechia	6.75	6.61	6.77	6.67	6.70	6.58	6.78	6.80	0.05
9	New Zealand	6.64	6.52	6.69	6.54	6.54	6.67	6.74	6.75	0.11
10	Germany	6.18	6.22	6.54	6.44	6.51	6.55	6.65	6.64	0.46
11	United Kingdom	5.93	6.17	6.48	6.45	6.53	6.55	6.66	6.64	0.71
12	Canada	6.42	6.29	6.33	6.42	6.23	6.49	6.55	6.57	0.15
13	Ireland	6.44	6.14	6.06	6.03	6.22	6.27	6.49	6.56	0.12
14	Switzerland	6.11	6.25	6.37	6.55	6.42	6.36	6.35	6.56	0.45
15	France	6.65	6.34	6.34	6.34	6.35	6.32	6.48	6.53	-0.13
16	Poland	5.79	5.82	5.98	6.06	6.13	6.09	6.33	6.42	0.63
17	Austria	6.23	6.05	6.27	6.34	6.32	6.41	6.37	6.33	0.10
	Belgium	6.30	6.18	6.25	6.15	6.30	6.24	6.36	6.31	0.01
	Luxembourg	6.52	6.55	6.54	6.55	6.64	6.28	6.34	6.23	-0.29
	Cyprus			5.79	5.77	5.85	5.96	6.14	6.10	
	Hungary	6.12	5.89	5.67	5.65	5.83	6.01	6.21	6.09	-0.03
	EU/OECD Average	6.14	6.01	5.93	5.93	5.94	5.99	6.05	6.09	
22	Slovakia	5.91	5.64	5.54	5.59	5.64	5.87	5.99	6.07	0.16
	Malta	0.71	0.0 .	5.66	5.80	5.77	6.01	5.95	6.07	
	Portugal	5.52	5.49	5.28	5.11	5.28	5.52	5.79	6.03	0.51
	Estonia	5.52	5.17	6.57	6.30	6.30	6.10	6.10	5.98	
	Australia	5.66	5.74	5.73	5.72	5.74	5.82	5.85	5.91	0.25
	Japan	5.48	5.39	5.45	5.50	5.58	5.53	5.55	5.62	0.14
	Spain	5.46	5.20	5.28	5.15	5.19	5.29	5.26	5.53	0.08
	Italy	5.68	5.62	5.44	5.42	5.43	5.40	5.52	5.48	− 0.20
		5.00	5.02	5.05	5.10	5.11	5.40	5.41	5.48	0.20
	Israel									
	Lithuania			5.75	5.98 5.16	5.57	5.36	5.30	5.36	
	Croatia			5.10		5.10	5.15	5.20	5.29	
	Latvia	5.05	F 00	5.60	5.53	5.20	5.23	5.14	5.21	012
	Korea	5.05	5.02	5.21	5.21	5.23	5.18	5.09	5.18	0.13
	Greece	5.12	5.09	4.57	4.74	4.79	4.78	4.95	5.10	-0.02
	United States	5.06	4.98	5.11	5.16	5.27	5.12	5.01	5.05	-0.01
	Chile		4.62	4.72	4.78	4.86	5.01	4.91	4.92	
	Bulgaria			4.40	4.47	4.51	4.78	4.73	4.91	
	Romania			4.86	4.54	4.41	4.55	4.74	4.86	
	Turkey	4.28	4.30	4.66	4.68	4.75	4.75	4.81	4.86	0.58
41	Mexico	4.27	4.26	4.39	4.57	4.63	4.69	4.72	4.76	0.49

Source: Social Justice Index.

Bertelsmann Stiftung

### FIGURE 2 SJI 2019 Rankings

		3		×			0
Country	Overall	Poverty Prevention	Equitable Education	Labor Market Access	Social Inclusion and Non- discrimination	Inter- generational Iustice	Health
Australia	26	30	22	8	16	21	8
Austria	17	16	36	25	20	17	12
Belgium	18	14	26	29	15	32	21
Bulgaria	38	33	28	31	41	19	39
Canada	12	25	4	10	6	25	14
Chile	37	36	27	35	34	11	38
Croatia	32	29	17	34	31	27	32
Cyprus	20	17	19	32	23	39	30
Czechia	8	4	40	4	22	14	26
Denmark	3	2	1	12	2	2	10
Estonia	25	28	10	11	17	5	24
Finland	4	3	6	26	10	4	20
France	15	7	35	38	21	20	4
Germany	10	15	14	15	18	22	13
Greece	35	22	31	41	29	41	19
Hungary	21	9	39	17	33	30	37
Iceland	1	1	5	1	3	6	7
Ireland	13	10	29	21	14	29	18
Israel	30	40	8	9	32	9	9
Italy	29	26	25	39	27	40	5
Japan	27	32	24	2	38	38	15
Korea	34	38	21	19	40	16	28
Latvia	33	34	12	27	30	10	41
Lithuania	31	37	18	20	25	12	33
Luxembourg	19	24	30	23	4	28	2
Malta	23	19	34	18	24	36	31
Mexico	41	39	32	24	36	15	40
Netherlands	6	6	20	16	5	26	17
New Zealand	9	23	9	3	7	8	3
Norway	2	5	2	13	1	3	1
Poland	16	12	13	22	28	31	34
Portugal	24	20	33	28	11	34	23
Romania	39	35	38	33	35	23	35
Slovakia	22	11	37	36	26	35	27
Slovenia	7	8	7	14	19	13	25
Spain	28	27	23	40	9	33	6
Sweden	5	13	3	30	8	1	11
Switzerland	14	21	15	7	12	7	16
Turkey	40	31	41	37	39	18	36
United Kingdom	11	18	11	5	13	24	22
United States	36	41	16	6	37	37	29

Source: Social Justice Index.

Bertelsmann Stiftung

## Germany, United Kingdom and France among the top third, but there are still large gaps among them

Three of Europe's most influential countries, Germany, the United Kingdom and France, are ranked 10<sup>th</sup>, 11th and 15<sup>th</sup> respectively in the overall ranking. Whereas Germany and the United Kingdom were able to expand inclusive opportunities in the past ten years, France is more or less stagnating in this regard. In addition, a closer look at the individual aspects of social justice shows us that there are grave differences between the three states. While Germany ranks in the (upper) midfield on all six aspects of social justice, the United Kingdom and France vary considerably on all fronts here. France, for example, ranks fourth in the dimension of health and seventh in the area of poverty prevention. By contrast, however, urgent action in both areas of education (rank 35) and labor market access (rank 38) is needed. Social selectiveness in the French educational system accounts in large part for the country's poor performance in equitable education. The country ranks last on both indicators that measure the link between students' socioeconomic background and their learning outcomes. In the dimension of labor market access, France is among the low performers on almost all indicators. At 9.1%, the country's unemployment rate is outperformed in negative terms only by the crisis countries of Greece, Italy, Spain and Turkey.

# Southern European crisis countries: Progress in Portugal; Greece continues to grapple with a dramatic labor market situation

Of the countries in southern Europe that were hit particularly hard by the economic crisis, only Portugal has managed to show clear improvement since before the crisis. In Spain, Italy and Greece, the total score has roughly reached the level of the SJI 2009. For the current SJI 2019, Portugal ranks 24<sup>th</sup>, while Greece only manages 35<sup>th</sup> place. Particularly in the labor market access dimension, Portugal clearly stands out from the other crisis countries at rank 28. Italy, Spain and Greece lag behind in this dimension. While a slight but steady upward trend has been evident in Italy and Spain since the SJI 2015, labor-market conditions in Greece remain distressing. Although the employment rate has risen since 2013, and the unemployment rate has declined, Greece still records by far the highest unemployment rate (19.5%) and the second-lowest employment rate (54.9%) in the sample. Moreover, despite having made some headway since 2013, Greece, Spain and Italy still feature the highest youth unemployment rates and by far the highest long-term unemployment rates among the countries surveyed. The southern countries also show clear weaknesses in the area of intergenerational justice. These countries maintain extremely high levels of debt and their unsustainable pension systems are creating a heavy cross for younger generations to bear. This is particularly true for Greece and Italy, which rank at the bottom of the countries surveyed in this area. On a positive note, Italy and Spain rank among the top nations in the health dimension, delivering good performances in this area.

# Giving rise to both hope and caution in Eastern Europe: Czechia and Slovenia among the top 10, Bulgaria and Romania at the bottom

A look at the opportunities for societal participation in the Eastern European states reveals serious differences. While Slovenia (rank 7) and Czechia (rank 8) are among the top ten countries, Romania (rank 39) and Bulgaria (rank 38) are at

the bottom end of the ranking. Czechia scored particularly well with a low at-riskof-poverty rate of 4.4% (2<sup>nd</sup> place) and the lowest unemployment rate among the surveyed countries (2.3%). The country's poor performance in terms of equitable education is what kept it from ranking even higher. In fact, since the SJI 2016, Czechia's performance in this dimension has worsened, bringing it down to second-to-last place. The high degree of social selectiveness in the education system is largely to blame here. Slovakia, Hungary and Romania also number among the five countries with the least equitable distribution of educational opportunities, whereas Slovenia and Poland are in the top third in the field of education. Romania also records the highest child poverty risk in the countries surveyed for the SJI. At 24%, this is almost six times as high Finland's child poverty rate (4.2%). These countries also struggle considerably with combating discrimination. Governments in Bulgaria, Romania, Slovakia, Croatia and Hungary do nothing to counteract hostilities directed at Roma minorities and the massive marginalization they face.

### **Baltic States losing ground**

In Estonia, Latvia and Lithuania we observe a more or less continuous downward trend in terms of social justice. On the one hand, the Baltic states have made significant progress in terms of ensuring access to the labor market, and they are also doing well in terms of providing fair educational opportunities. On the other hand, however, we see dramatic increases in at-risk-of-poverty levels among the elderly in all three countries. The SGI country experts attribute this to the low pension levels found in each country. The most drastic increase is in Latvia, where the poverty risk rate of those over 65 has increased from 6.5% in 2013 to 29.4% in 2018, marking a near five-fold increase. Only Korea has even more elderly people at risk of poverty. Latvia also ranks last in the SJI 2019 health ranking.

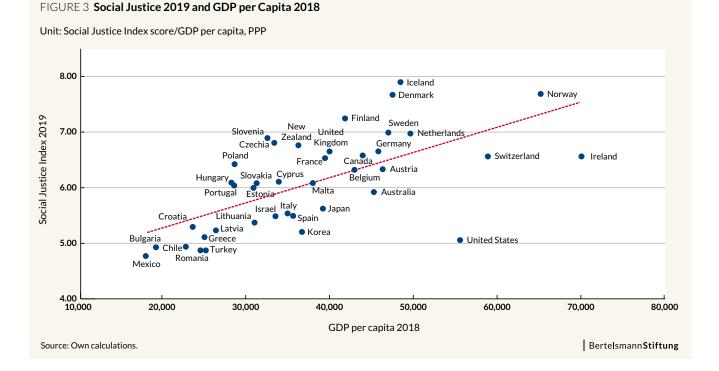
## North America: Canada among the top third, the United States among the bottom-ranked

While Canada is ranked 12th in the overall ranking, the United States just manages to achieve the rank of 36<sup>th</sup>. In fact, the United States' score has worsened even further since the SJI 2016, while a slight upward trend can be observed in Canada. Significant differences between the two North American countries can be seen above all in the dimensions of poverty prevention (Canada rank 25, USA rank 41) and social inclusion and non-discrimination (Canada rank 6, USA rank 37). At 17.8%, the United States has the second-highest share of people at risk of poverty of the countries surveyed, while the poverty risk in Canada is much lower at 12.1%. The differences in the risk of poverty for the eldery are even more pronounced, with the United States (23.1%) featuring a rate more than twice that of Canada's rate (12.2%). Integration policy in the United States has also suffered considerable setbacks. In the SJI 2009, Canada and the United States were top performers in this regard, each receiving 9 out of 10 possible points for this indicator. Today, however, while Canada has maintained its strong record in integration and continues to set an example for others, the United States has fallen to rank 24, receiving only 5 points for this indicator. The scope of educational opportunities for the foreign-born population in the United States, for example, has drastically narrowed. Currently, the share of the foreign-born population in the United States without an upper secondary degree is more than three times as high as that of the native-born population (rank 40). Canada and the United States both face a long road ahead in terms of catching up on issues of intergenerational justice. Both countries have done little to ensure a fair ecological legacy, as is evinced by their extremely high greenhouse gas emissions.

#### Weak opportunities for participation in Chile, Mexico and Turkey

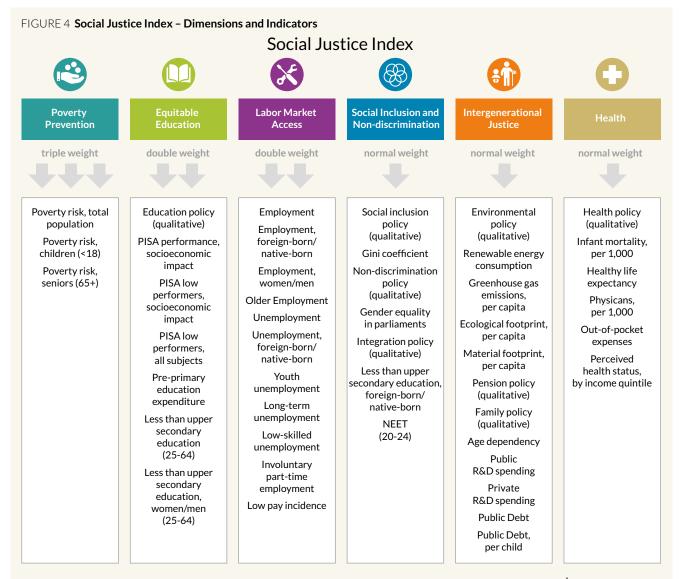
In addition to Greece, Bulgaria and Romania, Turkey (rank 40) and the South American countries of Chile (rank 37) and Mexico (rank 41) each offer the least in terms of opportunities for social participation, despite having recorded slight improvements in recent years. All three states are among the 10 worst countries in terms of poverty prevention, social inclusion and non-discrimination, and health. In terms of intergenerational equity, however, they number among the middle ranks. Yet we see major differences among them when it comes to ensuring labor market access. In Mexico, the unemployment rate is only 3.4% (rank 4) and youth unemployment 6.9% (rank 5), while the corresponding figures in Turkey are about three times as high at 11.1% (rank 39) and 20.2% (rank 34), respectively. Moreover, given that Turkey takes last place in the educational ranking and education is a key condition for access to the labor market, it seems unlikely that we will see any notable improvement in the country's labor market situation anytime soon. Currently, 62.6% of 25-64 year-olds in Turkey have no upper secondary degree, while in Lithuania, the best country for this indicator, this is true of only 5.2% of the population. The share of PISA low performers in all subjects is also enormously high in Turkey at 31.2% (rank 40). Perhaps most dramatically, Mexico and Turkey both have high infant mortality rates and receive by far the lowest scores for this indicator.

### (Not only) money does matter



A comparison of the economic performance of the 41 surveyed OECD and EU countries with the existing opportunities for participation in society shows a correlation between the two (cf. Fig. 3). Social justice tends to be stronger in those countries that have greater economic potential, as measured by their real GDP. The countries featuring the greatest opportunities for social participation – Norway, Denmark and Iceland – are among the wealthier nations, while poorer countries such as Mexico or Bulgaria are at the end of the social justice ranking. However, Fig. 3 also shows that economic performance alone is not the only determining factor. A comparison between the United States and the Netherlands, for example, shows that the opportunities for social participation are much better in the Netherlands – with a lower GDP – than in the United States. Measured by its economic performance, the United States is a clear underperformer in terms of social justice.

## 2. Key findings, by dimension



Source: Social Justice Index.

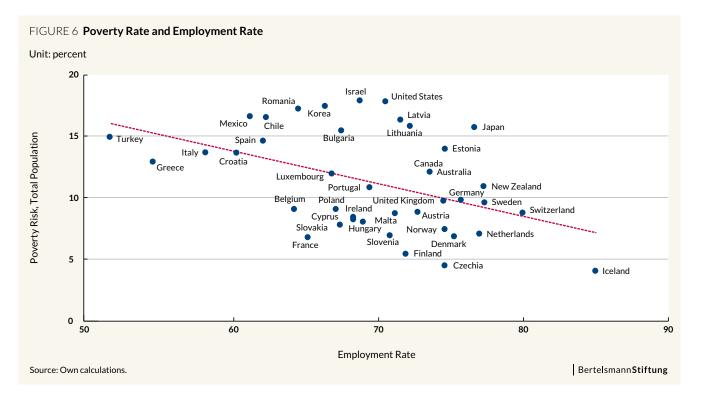
Bertelsmann Stiftung

## Continued improvements in the labor market increases opportunities for participation

In this year's edition of the SJI, we see that for many, the continued upward trend in the labor market has brought about slight improvements in opportunities for participation. In 38 of the 41 countries included in the survey, job opportunities have improved compared to the previous year. The average score of 6.91 for access to the labor market shows that the pre-crisis level (SJI 2009: 6.77) was for the first time surpassed. The same is true of the average unemployment rate among the OECD and EU countries, which is below pre-crisis levels (5.7%) and has fallen to 5.3% after having peaked at 8.4% in 2010. Nevertheless, striking differences remain among the 41 countries surveyed. The employment rate ranges between 85.1% in Iceland and 52% in Turkey, and unemployment in Greece is at 19.5%, which is more than eight times higher than that seen in Czechia (2.3%).



Another encouraging sign is that youth unemployment has continued to decrease in most countries. This applies as well to those countries hit hardest by the crisis in southern Europe. After peaking at almost 60% in 2013, unemployment in Greece has fallen to a current rate of 39.9%. In Spain, where youth unemployment reached a similarly high rate of 55.5% in 2013, youth unemployment is now at 34.3%. Nevertheless, young people in Spain, Greece and Italy continue to struggle with finding a job and run the risk of facing social exclusion. While Italy, Spain and Greece remain at the bottom of the labor market rankings, Iceland, Japan and New Zealand top the list.



# Despite improving job outlooks, numbers of those at risk of poverty have declined in only 16 countries

The increase in job opportunities is clouded by the fact that not all social groups benefit equally from this upward trend in the labor market. What's striking here is that in many cases, these increasing employment figures are not accompanied by a decline in the risk of poverty. Despite the fact that since 2013 in 40 of the 41 countries significantly more people are in employment, only 16 countries have been able to reduce their relative poverty rates. This troubling finding is particularly evident in the example of Lithuania, where the employment rate rose from 63.7% in 2013 to 72.4% in 2018, while the rate of the total population at risk of poverty rose from 13.1% to 15.8% for the same period.

Israel (17.9%), the USA (17.8%) and Korea (17.4%) are the worst performers in the poverty ranking. Each state has considerable problems in terms of protecting its population from poverty and thereby ensuring full social inclusion. On the other hand, poverty risk rates are lowest in Iceland and Czechia. In both countries, the already low at-risk-of-poverty rate for the total population was reduced further to 4% and 4.4%, respectively.

The growing dualization of labor markets is one factor that accounts for the fact that improving employment rates in many countries are not ushering in a reduction in the risk of poverty. For example, most country experts report that gaps in income and job quality have grown, which often results in a narrowed scope of opportunity to participate in society. One reason for this is the flexibilization of labor markets underway in almost all countries. While this trend has contributed significantly to the increase in employment, it also involves an increase in atypical, non-regular employment relationships, such as part-time work or fixedterm employment. For example, in 23 of the 41 countries surveyed by the SJI since 2008, the share of involuntary part-time work vis-a-vis total part-time work has increased, and in some cases, substantially so. This is true particularly of the crisis countries in southern Europe. In Greece, for example, the share of people working part-time involuntarily increased by 26 percentage points since 2008 to 70.1% (2018). In addition, in some countries, many people work in the low-wage sector, which means they are particularly susceptible to poverty. While the employment rate in the United States, for example, has risen slightly in recent years, rather than falling, the rate of those at risk of poverty has increased to 17.8%. One reason for this could be that almost a quarter of employees in the United States are in the low-wage sector.

### In 27 countries, the risk of poverty is higher for children and youth than it is for the elderly – social welfare systems must nevertheless do more to counter the growing risk of poverty in old age

Those groups particularly at risk of poverty include the elderly, children and youth. Whereas the risk of poverty among children has fallen in about half of the countries since the SJI 2009, the prospects of social inclusion for children and youth in the other half are significantly worse than before the crisis. Child poverty remains alarmingly high in many countries. The situation is particularly dramatic in Romania, where 24% of children are affected by poverty. In Turkey and Israel, the share is similarly high, with almost one in four children being at risk of poverty and social exclusion.

Notably, in 27 of the 41 countries surveyed, more children and youth are affected by poverty than those over 65. In many countries, including those with a strong welfare state such as Sweden, Norway and Denmark, child poverty is considerably higher than old-age poverty. Among the remaining 14 countries are Australia, Latvia, Estonia and Korea, where the situation for the older generation looks significantly worse in some cases. In Korea, where poverty among the elderly is by far the highest at 43.8% and child and youth poverty rates are also high, we nonetheless see a near 30-point spread between the two age groups. Even though in many cases old-age poverty did not worsen significantly during the crisis years (and in some cases even fell below pre-crisis levels), there have been clear signs in many countries of an increase in old-age poverty over the past one-to-two years as a result of growing demographic pressure. In Luxembourg, for example, old-age poverty doubled within one year from 3.3% (2015) to 6.7% (2016) and has reached 8.8% in 2018. While pensions in many countries have remained relatively high even in times of crisis, pension systems are now subject to profoundly intensifying pressure. In order to ensure a sustainable future, however, social welfare system reforms must be able to secure the standard of living of today's older generation while taking into account the interests of younger generations.

In addition to children and the elderly, the risk of poverty is also considerably higher among migrants and ethnic minorities than it is among other social groups. Poverty among Israel's Arab minority, for example, is visibly greater than it is among the rest of the population, and our country experts for Czechia and Slovakia also point to high poverty rates among the Roma in these two countries. These are just a few examples of several reports highlighting the markedly reduced opportunities for participation that are found among migrants and members of ethnic minorities.

#### Stalled development in intergenerational justice

The overall average score for intergenerational justice, which is well below that of the other five dimensions, remains at a standstill. In nearly every country included in the SJI, we see no progress being made in this area. In fact, compared to the previous year, more than half of the 41 OECD and EU states have even recorded slight setbacks in terms of intergenerational justice. In addition, we see large gaps in the findings for individual countries. While Nordic countries such as the absolute frontrunners Sweden, Denmark, Norway and Finland, are best at integrating the interests of younger and future generations into contemporary policymaking, Italy and Greece by far have the most difficulty in terms of intergenerational justice.

The lack of progress is worrying given the fact that, in all countries, low birth rates and increased life expectancy are increasing the percentage of people who are no longer of working age. Part of the challenge for these 41 countries is to meet the growing (monetary) demands on social security systems without imposing immense financial burdens on younger generations. And while the Nordic countries tend not to balk at introducing the necessary reforms for a sustainable family and pension policy, many other countries find it difficult to cope with demographically induced changes.

A large number of countries have once again been able to significantly reduce their debt levels since the crisis, thereby creating the financial breathing room needed for present and future generations. Nonetheless, we observe continued high levels of debt, particularly in Japan, the United States and the crisis-stricken countries of southern Europe such as Greece, Italy, Portugal and Cyprus. In Greece, for example, the country with the second highest debt level of 183.3% of GDP, we see an increase of 4 percentage points compared to previous year. With an extremely high national debt of 237.1% of GDP, Japan's debt level is heavy burden weighing in on future generations. Considered within the context of its demographic structure, Japan's high public debt draws even greater concern when the debt is calculated for each child. In that case, the debt currently amounts to 816.000I\$ per child. As it turns out, politically, the financial scope of action available to present and future generations in these countries is severely limited. In stark contrast to this is Estonia, which ranks at the top in terms of intergenerational justice with a debt ratio of only 8.1% of GDP. Equally diverse is the picture of R&D expenditure, which can potentially contribute to intergenerational equity by fostering innovations necessary for competitiveness. In addition to the top performers of Israel and Korea, Sweden, Switzerland, Austria, Denmark and Germany feature comparatively high expenditures on R&D in an effort to advance innovation and develop solutions to urgent problems. As in all 41 countries, private spending on R&D in these countries is significantly higher than government spending. In contrast, Bulgaria, Romania, Malta and Cyprus land at the bottom of the ranking with less than 0.3% of GDP being spent on research and development in the public sector.

The environmental legacy being passed on to younger generations is of grave concern. Although many of our country experts point to a growing tendency in politics to take environmental concerns more seriously, no quantum leap has been achieved in advancing environmental sustainability. The sad truth is that in 19 of the 41 countries assessed, greenhouse gas emissions have actually increased since the previous year. Australia, the United States and Canada, which continue to emit nearly 20 metric tons of greenhouse gases per capita, are among the biggest polluters. As in the overall ranking, we see a large divide when it comes to climate change and environmental protection policymaking. On the one side, we have ambitious countries such as Sweden, which has steadily reduced its carbon footprint to 5.24 metric tons per capita and is expanding its share of renewable energy, and on the other, we have those countries that do too little to curb the impact climate change and environmental degradation are destined to have on future generations. The latter are clearly in the majority, because only three of the 41 countries included in the sample obtain more than 50% of their energy needs from renewable sources. In addition, only eight countries feature a carbon footprint small enough to allow for a biocapacity able to bear the consumption of renewable resources.

#### Once again, little progress made on social inclusion and non-discrimination

On average, little has been done to advance social inclusion and non-discrimination in recent years. However, the fact that many countries have recorded slight improvements in gender equality gives rise to hope. Since the SJI 2018, 16 countries have increased their share of women in parliament, and only two countries saw a decrease. Women are most strongly represented in Mexico and Sweden, which have 48 and 46 women out of 100 seats, respectively. The ratio of women to men employed in the workforce has also been further equalized in some countries. Nonetheless, achieving genuine equality between women and men continues to demand greater effort. In nearly half of the countries examined, the representation of women in legislatures remains extremely low, with less than 25% of their representatives being female. In countries such as Turkey and Mexico, the percentage of women in paid employment remains only half that of men in paid employment. The lack of gender equality is seen clearly in the absence of equal pay for equal work and is even more damning when the hours for unpaid work such as care work are factored in.<sup>2</sup> The country experts report that in countries such as Austria, Czechia, Poland and Hungary, where traditional concepts of the family often dominate, the governments themselves are actually standing in the way of advancing equality between women and men. In Hungary, for example, the country experts report that the populist Fidesz government actively promotes discrimination against women in the world of work.

Populist governments are also responsible in many cases for discrimination against migrants, refugees, Muslims or other religious minorities, ethnic minorities, and supporters of the LGBTQ community. According to reports by our country experts in Austria, Italy, Hungary and Poland in particular, discrimination against these groups has continued to grow. Negative attitudes are often reflected in a failed integration policy. These countries, like the United States, continue to lose ground in terms of integration. Notably, model nations such as the Netherlands, Sweden and Finland are increasingly faltering in terms of counteracting social polarization and exclusion. This is manifest in the fact that while comparatively

<sup>2</sup> Although gender pay differentials and the number of hours in unpaid work are not included in the SJI 2019 calculation as a result of insufficient data, these factors are essential to gender equality. In the SGI country reports on social inclusion and non-discrimination policy, the experts address specific issues relating to gender equality policy. These reports are available at sgi-network.org.

fair, income distribution in these countries has grown increasingly unequal in recent years. Encouragingly, however, many of the 41 countries are closing in on their pre-crisis levels and income inequality has declined in 20 countries since the SJI 2009. Slovakia and Slovenia lead the ranking, while income in Bulgaria, Turkey, Chile and Mexico is very unevenly distributed by comparison.

#### Slight improvement in fair educational opportunities

OECD and EU countries have recorded a slight improvement in educational justice compared to previous years. For example, in almost all countries, the share of people with less than upper secondary education has declined, in some cases significantly. Nonetheless, countries continue to record significant differences in this indicator. While the share is below 8% in Lithuania, Czechia and Poland, the share remains very high in Mexico and Turkey, with each recording nearly 62%. However, the long-term trend remains positive in these countries as well. There are also remarkable discrepancies in educational attainment levels in terms of gender. While in Czechia, Korea and Austria the share of women without upper secondary education is more than 50% higher compared to men, in the Baltic states, the share of men is almost 40% higher than among women.

Unsurprisingly, the Nordic countries of Denmark, Norway and Sweden top the equitable education ranking. However, as is the case in the rest of the sample, socioeconomic background continues to have an impact on the educational success of students in these countries. In 18 countries, this influence has actually increased since the SJI 2009. This unequal distribution of opportunities draws concern in so far as educational success has a clear impact on labor market opportunities and thus also on social inclusion. There is an urgent need for action in this respect, particularly in Belgium, Bulgaria, Czechia, Hungary and France. In these countries, socioeconomic background has the strongest effect on student performance. Iceland, which features an education system that provides children form socioeconomically disadvantaged families near-equal opportunities as those provided to their counterparts from more well-off families, achieves the highest value for this indicator.

# II. Dimensions of social justice: empirical findings 2019

### 1. Poverty prevention

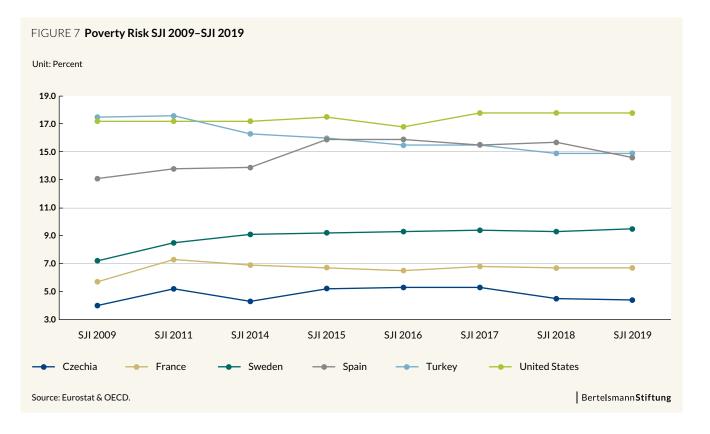
Compared to the SJI 2009, the rate of those at risk of poverty<sup>3</sup> has decreased in 16 of the 41 countries, while the risk of poverty has increased over the same time period in 24 countries. In absolute terms, the changes are relatively moderate. The largest increases over this period were recorded in Luxembourg (+5.3 percentage points), Estonia (+2.4 percentage points) and Sweden (+2.3 percentage points). The largest decreases over this period – though at a high baseline – were observed in Turkey (-2.6 percentage points), Latvia (-2.4 percentage points) and Mexico (-2.3 percentage points).

Trends in this area over the past five years are also worth noting. Although employment in 40 of the 41 countries surveyed – with the exception of Norway – has increased since the SJI 2014, the risk of poverty has declined in only 16 countries during the same period. This shows that not all social groups benefit equally from this upward trend in the labor market. In particular, many experts report a higher risk of poverty for migrants and large differences between regions.

Recent data show that Iceland, Czechia and Finland are currently the most successful in terms of preventing poverty. In these countries, the poverty rate of the total population ranges between 4% and 5.4%. The top-ten nations include two more northern European states, Norway and Denmark, three more eastern European states, Slovakia, Slovenia and Hungary, as well as France and the Netherlands.

Our experts attribute Czechia's high scores to its strong showing in terms of employment and the fact that its social policies are redistributive in nature. At the same time, however, they point to an increasing shortage of housing, debt problems in the population and considerable regional and ethnic inequalities: "Due to a favorable employment picture and a still rather redistributive social policy, income inequality and poverty in Czechia remain among the lowest in the OECD and the European Union. However, a growing proportion of the population are affected by the harsh legal process for punishing individuals who default on debt

<sup>3</sup> In previous editions of the SJI, data with the cut off point at 60% was used. This meant that those with an income below that of 60% of the median income in a given country were considered to be poor. However, since we've included this year both OECD and EU countries, and the OECD only reports poverty data for children and youth with a cut-off point at 50%, we use this reference value for the current SJI.



repayments. Under a law introduced in 2001, a court can order tough repayment requirements including confiscation of property, with a few exceptions such as wedding rings, which is then sold off to reduce the debt. The numbers required to comply with orders from a court grew by 3.4% in 2017, reaching 863,000 individuals. There are also substantial differences between regions and ethnic groups that have not been eliminated despite at the fact that they have been their recognized by at least parts of past governments. The Ministry of Labor and Social Affairs investigated areas of social exclusion in 2014-2015 and found 606 such areas with 95,000-115,000 inhabitants. These areas of social exclusion are defined as ones of any population size in which more than 20% of inhabitants live in inadequate conditions. In these areas, about 75% of residents are low-skilled, and the unemployment rate is 80%-85%. Half of the Roma residing in the Czech Republic live in social exclusion. No subsequent monitoring has been undertaken on that scale since 2014-2015. A further pressing problem of social inclusion is the lack of affordable housing and the growing number of homeless people, with estimates of 200,000 not having their own home."4.

Despite its relatively low risk of poverty, significant regional and ethnic disparities are observed in Slovakia as well: "As measured by the regional Gini coefficient, Slovakia stands out as the country with the highest regional disparities in the European Union. Roma and children from disadvantaged families continue to be the groups most at risk of social exclusion. The poverty rate among Roma is more than six times higher than for the general population and also higher than

4 Guasti, Mansfeldová, Myant and Bönker (2019), available at www.sgi-network.org.

### FIGURE 8 Poverty Prevention

Unit: Score

				So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	8.39	8.32	8.46	8.74	8.58	8.81	8.81	8.81	0.42
2	Denmark	8.23	7.57	8.08	8.40	8.18	8.34	8.26	8.36	0.13
3	Finland	7.64	8.28	8.25	8.38	8.57	8.67	8.60	8.33	0.70
4	Czechia	8.34	8.11	8.58	8.15	8.03	8.08	8.32	8.22	-0.12
5	Norway	7.82	8.19	8.60	8.39	8.36	8.10	8.04	8.08	0.26
6	Netherlands	8.21	8.45	8.42	8.28	8.27	7.92	7.89	7.79	-0.42
7	France	8.19	7.53	7.69	7.79	7.87	7.76	7.86	7.79	-0.41
8	Slovenia			6.53	6.56	6.76	6.88	7.17	7.33	
9	Hungary	7.90	7.96	7.00	6.76	6.99	7.49	7.91	7.28	-0.62
10	Ireland	7.06	7.45	7.14	6.92	7.15	6.80	7.27	7.27	0.21
11	Slovakia	7.80	7.27	7.35	7.20	7.16	7.19	7.25	7.25	-0.54
12	Poland	6.48	6.25	6.22	6.36	6.38	6.22	6.96	7.11	0.63
13	Sweden	7.57	7.35	6.91	7.07	6.94	6.76	6.85	6.81	-0.76
14	Belgium	6.93	6.86	7.08	6.87	7.26	6.98	7.09	6.73	0.21
15	Germany	6.93	6.88	6.95	6.56	6.66	6.67	6.83	6.64	-0.29
16	Austria	6.47	6.34	6.58	6.84	6.87	7.09	6.80	6.61	0.14
17	Cyprus			6.94	7.04	6.93	6.85	7.13	6.54	
18	United Kingdom	5.09	6.06	6.66	6.41	6.43	6.32	6.45	6.45	1.36
19	Malta			6.43	6.55	6.25	6.68	6.24	6.37	
20	Portugal	5.25	5.59	5.66	5.02	5.05	5.25	5.68	6.09	0.83
21	Switzerland	5.45	5.66	5.75	6.19	5.71	5.59	5.32	5.84	0.39
22	Greece	5.08	5.49	4.58	4.78	5.03	5.04	5.29	5.75	0.67
23	New Zealand	6.05	6.05	6.27	5.70	5.70	5.70	5.70	5.70	-0.35
24	Luxembourg	7.79	7.28	7.14	7.29	7.33	6.42	6.25	5.68	-2.11
	EU/OECD Average	6.08	6.00	5.84	5.80	5.70	5.68	5.70	5.67	
25	Canada	5.46	5.30	5.32	5.57	4.92	5.49	5.59	5.59	0.14
26	Italy	5.32	5.53	5.54	5.68	5.30	5.13	5.34	5.26	-0.07
27	Spain	4.26	4.53	5.19	4.77	4.69	4.83	4.53	4.84	0.58
28	Estonia			6.58	5.70	5.49	4.84	4.51	4.14	
29	Croatia			4.79	4.77	4.62	4.46	4.34	4.14	
30	Australia	3.74	3.74	3.74	3.89	3.89	4.11	4.11	4.11	0.38
31	Turkey	3.26	3.17	3.52	3.48	3.70	3.94	4.06	4.06	0.80
32	Japan	3.73	3.73	3.70	3.70	3.93	3.93	3.93	3.93	0.20
33	Bulgaria			3.44	3.52	3.42	3.50	3.18	3.55	
34	Latvia			5.71	5.14	4.13	3.87	3.48	3.44	
35	Romania			4.00	3.24	2.83	3.00	3.24	3.37	
36	Chile		3.28	3.46	3.46	3.53	3.53	3.27	3.27	
37	Lithuania			5.29	6.00	4.39	3.83	3.38	3.21	
38	Korea	2.93	2.93	2.93	2.93	2.93	3.00	3.10	3.10	0.17
39	Mexico	2.04	2.04	2.04	2.65	2.65	2.66	2.66	2.66	0.62
40	Israel			1.91	2.06	1.99	2.71	2.56	2.56	
41	United States	2.91	2.91	2.91	2.85	2.99	2.49	2.44	2.44	-0.47

Source: Social Justice Index.

Bertelsmann Stiftung

in other societies with sizable Roma populations. [...] Although showing slight improvements, access to the labor market, especially for women and people living in the east and north, has remained a challenge. The main reasons for this phenomenon are the combination of low growth and job creation in the country's poorer regions, as well as an insufficient infrastructure and incentives for regional labor mobility to job-rich areas."<sup>5</sup>

A strong welfare state and a relatively good system of measures protecting against poverty and social exclusion are common features among the Scandinavian countries. In Norway, for example, the country experts report: "Like other Scandinavian countries, Norway is a relatively equitable society. Poverty rates are among the lowest in the world. The Norwegian government has assumed responsibility for supporting the standard of living of disadvantaged and vulnerable groups. As a result, expenditures for social policy are well above the EU average. Government-provided social insurance is strong in almost all areas. Family-support expenditures exceed 3% of GDP, in the form of child allowances, paid-leave arrangements and child care. Social-insurance spending related to work incapacity (disability, sickness and occupational injury benefits) is also generous."

Finland enjoys a similar state of affairs although, as the country experts point out, there are regional differences and migrants are at high risk of poverty: "The Finnish constitution safeguards basic economic, social and educational rights for all people, with these rights guaranteed both by the state and by municipal authorities. However, reality does not entirely measure up to this ideal. While social policy largely prevents poverty and the income-redistribution system has proven to be one of the most efficient in the European Union, pockets of relative poverty and social exclusion still prevail. Furthermore, inequalities in well-being exist between regions and municipalities, depending on demographic composition and economic strength. [...] The government has placed a particular emphasis on programs for at-risk youth from 15 to 17 years old who experience social exclusion, as well as on programs to create equal opportunities for disabled individuals. Immigrants are another group that faces social exclusion, especially due to poor integration in the labor market. The explosive increase in the number of immigrants in 2016 and 2017 has added to these difficulties."<sup>6</sup>

In Denmark, the risk of poverty is also relatively low at 6.8% (rank 5). However, public debate on the country's welfare model has flared up as a number of social transfer measures have been reformed in an effort to strengthen incentives to take up work. As the country experts show: "Employment rates are high for men and women, but a distinguishing feature of the welfare model is that most people who are not in employment are entitled to some form of social transfer. Somewhat simplified, the debate is split between those arguing that the welfare state is creating a low incentive to work and those arguing that most unemployed people are unable to work due to various problems (e.g., social problems or a lack of qualifications) that make it difficult/impossible for them to find jobs. Most social transfers have recently been reformed with a greater focus on employment. The aim of these reforms is to strengthen the incentive to work, but it may result in

<sup>5</sup> Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.

<sup>6</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

poverty for those failing or unable to respond to these incentives. The reform of the disability pension scheme implies that disability pension cannot be granted to individuals below the age of 40 (except for cases of severe and permanent loss of work capability). Instead, the focus has shifted to using and developing an individual's remaining work capabilities. Likewise, the social assistance scheme has been reformed with a particular focus on improving the educational attainment of young workers (people below the age of 30). For other age groups, the system now offers more flexibility and individualized solutions. Eligibility for social assistance depends on both a residence requirement (with immigrants needing to have been resident in Denmark for nine out of the last 10 years) and a work requirement (225 hours paid work within the last year). Moreover, there is an upper cap on total support (social assistance, housing supplement, child supplement). Immigrants not satisfying the residence requirement receive the lower so-called introduction benefit."<sup>7</sup>

The French welfare model, which largely protects against poverty and social exclusion, receives good marks from the country experts. At the same time, however, they criticize the fact that some rural regions and migrants have subject to the effects of social exclusion: "By international and European standards, the French welfare state is generous and covers all possible dimensions affecting collective and individual welfare, not only of citizens but also of foreign residents. Poverty remains at a comparatively low level. Therefore, social inclusion in terms related to minimum income, health protection, support to the poor and to families is satisfactory and has permitted that, up to now, the impact of the economic crisis has been less felt in France than in many comparable countries. [...] The performance of the welfare state is less convincing when it comes to equal opportunities. The percentage of young people in neither education nor employment is persistently high, pointing to the difficulties in transitioning between the education system and the labor market. Furthermore, some groups or territorial units are discriminated against and marginalized. The so-called second-generation immigrants, especially those living in the suburbs, as well as less vocal groups in declining rural regions feel excluded from broader French society: abandoned to their fate, their situations combine poor education and training, unemployment and poverty." 8

In the Netherlands, the rate of people living in poverty (7.0%) also remains relatively low compared to most other countries (rank 7). Yet we also observe that some population groups are particularly affected by poverty: "Compared to other EU member states, the number of Dutch households at risk of social exclusion or poverty is still low. But since 2008, the beginning of the economic crisis, poverty in the Netherlands has increased by one-third. Single-parent families, ethnic-minority families, migrants, divorcees and those dependent on social benefits are overrepresented in this poverty-exposed income bracket. Since 2014, the risk of poverty is declining faster among migrants than among the general population."<sup>9</sup>

In Poland, Sweden, the United Kingdom and Germany, poverty rates lie somewhere between 9% and 10% and thus fall among the middle ranks of the 41 OECD and EU states surveyed. In Germany (rank 20), the current risk of poverty is at 9.8%,

<sup>7</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

<sup>8</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>9</sup> Hoppe, Krouwel and Bandelow (2019), available at www.sgi-network.org.

### FIGURE 9 Poverty Risk, Total Population

Unit: Percent

Onit. Fe				S	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	4.5	5.4	4.9	3.9	4.9	4.0	4.0	4.0	-0.5
2	Czechia	4.7	5.2	4.3	5.2	5.3	5.3	4.5	4.4	0.3
3	Finland	6.5	5.5	5.4	5.5	5.3	4.9	4.9	5.4	-1.1
4	France	5.7	7.3	6.9	6.7	6.5	6.8	6.6	6.7	1.0
5	Denmark	6.2	7.9	6.9	6.6	7.1	6.8	7.2	6.8	0.6
6	Slovenia	6.8	7.3	8.5	9.1	8.4	8.2	7.6	6.9	0.1
7	Netherlands	5.0	4.9	5.2	5.9	5.8	6.6	6.9	7.0	2.0
8	Norway	7.0	6.1	5.5	6.2	6.5	6.9	7.1	7.4	0.4
9	Slovakia	5.7	7.8	7.8	8.4	8.4	8.1	7.8	7.8	2.1
10	Hungary	6.4	6.0	9.2	9.2	9.0	7.8	6.7	8.0	1.6
11	Ireland	8.1	7.1	8.1	8.8	8.6	9.1	8.2	8.2	0.1
12	Cyprus	7.5	8.4	8.1	7.8	9.0	8.3	7.1	8.4	0.9
13	Malta	8.6	8.0	8.7	8.3	8.6	7.8	8.6	8.7	0.1
	Switzerland	9.2	8.7	8.1	7.8	8.9	8.9	9.7	8.7	┥ -0.5
15	Austria	8.8	9.1	8.6	8.2	8.3	8.1	8.8	8.8	0.0
16	Belgium	7.5	7.9	8.3	8.6	7.8	8.6	8.3	9.0	1.5
	Poland	10.2	10.5	10.8	10.7	10.7	11.1	9.5	9.0	-1.2
18	Sweden	7.2	8.5	9.1	9.2	9.3	9.4	9.3	9.5	2.3
19	United Kingdom	11.3	9.9	9.0	9.5	9.7	9.9	9.7	9.7	-1.6
20	Germany	9.2	9.2	9.4	10.5	10.2	9.7	9.4	9.8	0.6
21	Portugal	11.9	11.3	12.6	13.8	13.8	13.0	12.3	10.8	-1.1
22	New Zealand	9.8	9.8	9.9	10.9	10.9	10.9	10.9	10.9	1.1
23	Luxembourg	6.6	8.0	8.4	8.1	8.2	10.3	11.0	11.9	5.3
24	Australia	14.0	14.0	14.0	12.8	12.8	12.1	12.1	12.1	-1.9
	Canada	12.7	13.1	13.3	12.6	14.2	12.4	12.1	12.1	-0.6
26	Greece	12.7	12.4	16.6	15.8	15.0	15.3	14.5	12.9	0.2
27	Croatia	13.4	13.4	13.5	13.4	13.5	13.5	13.4	13.6	0.2
	Italy	11.9	12.1	12.8	12.7	13.4	14.2	13.4	13.6	1.7
29	Estonia	11.5	9.4	10.8	13.0	12.5	13.1	13.0	13.9	2.4
30	Spain	13.1	13.8	13.9	15.9	15.9	15.5	15.7	14.6	1.5
31	Turkey	17.5	17.6	16.3	16.0	15.5	15.5	14.9	14.9	-2.6
32	Bulgaria	14.4	15.2	15.1	15.9	15.5	16.5	16.0	15.4	1.0
33	Japan	16.0	16.0	16.1	16.1	15.7	15.7	15.7	15.7	-0.3
34	Lithuania	14.1	14.6	13.1	11.3	14.4	15.9	16.1	15.8	1.7
35	Latvia	18.7	14.5	12.9	13.2	14.7	14.4	15.4	16.3	-2.4
36	Chile	17.8	17.8	16.8	16.8	16.1	16.1	16.5	16.5	-1.3
37	Mexico	18.9	18.9	18.9	16.7	16.7	16.6	16.6	16.6	-2.3
38	Romania	16.8	15.3	16.7	19.1	19.8	19.2	17.6	17.2	0.4
39	Korea	17.5	17.5	17.5	17.5	17.5	17.6	17.4	17.4	-0.1
40	United States	17.2	17.2	17.2	17.5	16.8	17.8	17.8	17.8	0.6
41	Israel	18.1	18.1	18.6	18.6	19.5	17.7	17.9	17.9	-0.2
										0 2 4 6 8 10 12 14 16 18 20

Bertelsmann Stiftung

Source: Eurostat & OECD.

which is slightly higher than its pre-crisis level of 9.2%. Nevertheless, the country experts emphasize that the German labor market is and has been in generally good shape, which has led to a significant reduction in the number of households in need of support: "There are a variety of minimum income benefit schemes for unemployed ("Hartz IV"), disabled and elderly people, and asylum-seekers. The ongoing employment boom has considerably reduced the number of households in need of support. In November 2018, for the first time since the introduction of the Hartz system, the number of supported households ("Bedarfsgemeinschaften") has fallen below three million (2.996 million). This amounts to a reduction of 6.2% over the previous year. This positive development is even more remarkable as, since 2015, 750,000 refugees have become recipients of income support. The number of individual recipients of income support with a German passport has strongly declined from 5.74 million in 2008 to 3.9 million in 2018."<sup>10</sup>

In Portugal, Italy, Greece and Spain the risk of poverty initially has risen (significantly) with the onset of the economic and financial crisis. And although we've seen a slight improvement in all four countries, poverty rates in these countries, excepting Portugal, are still above pre-crisis levels with values between 10.8% (Portugal) and 14.6% (Spain). The SGI experts underscore the fact that the economic crisis has hit Europe's southern countries particularly hard, forcing governments to cut back on tax revenues, including social spending. The country experts for Portugal report: "Government social policies seeking to limit socioeconomic disparities do exist, but they are poorly funded and not very effective in preventing poverty. The 2011 - 2014 bailout led to the adoption of a number of austerity measures that sought to reduce public expenditure on social inclusion and contributions to poverty-reduction programs. This led to an increase in the share of those at risk of poverty after social transfers [...]. The Costa government has stated its intention to turn the page on austerity. However, the government has not relinquished its approach to budgetary consolidation to achieve this goal. As such, while there has been a reversal in austerity measures imposed on pension and welfare payments, the situation has not yet returned to pre-bailout levels."11

The country experts for Italy also point to the economic crisis, criticizing the fact that the social system – and particularly in the country's south – is ill-equipped to provide effective protection against poverty in the face of rising tax rates and reduced social transfers: "The impact of the economic crisis on the incomes of a significant percentage of households and the increasing levels of unemploy-ment – particularly among young people – have had important negative effects on social inclusion. The gap between the more protected sectors of the population and the less protected ones has increased. The traditional instruments of social protection (e.g., those guaranteeing unemployment benefits for workers with permanent labor contracts) do not cover a large part of the newly impover-ished population, while new policies are only slowly being implemented. [...] The progressive tax system and a series of deductions and benefits for low-income individuals – which should have accomplished redistributive functions – have largely ceased to work in this direction. The system's redistributive efforts have been curtailed by the rise in tax rates and the erosion of benefits and deductions,

<sup>10</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>11</sup> Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

as well as the large tax evasion among certain parts of the population. Moreover, the system's redistributive effects fail to reach that part of the population, which earns less than the minimum taxable income. An effective poverty reduction policy would require larger and more effective instruments. [...] On average, local social programs in the north of the country can deliver benefits three times higher than in the south. Italian family networks still constitute the most important though informal instrument of social welfare."<sup>12</sup>

Although the Gentiloni government has taken some steps to improve the situation, they are insufficient, as the SGI experts explain: "To address these problems the Gentiloni government has maintained some of the instruments adopted by the previous government, such as the  $\in$ 80 monthly tax credit for low-income earners, the 'Bonus bebé' (an allowance paid to families for each new baby) and the NASPI (a stronger unemployment allowance). It has also introduced a new maternity bonus for pregnant mothers and a new measure of integration income for families below the poverty line (Reddito di inclusione). These measures go in the right direction, but their impact is still insufficient. The new government has proposed a much larger program, 'reddito di cittadinanza' (citizenship income). Due to start in 2019, the program should reach a large proportion of young people not in education, employment or training, particularly in the south of Italy. The details of this program are not yet fully defined."<sup>13</sup>

In Greece, the country experts criticize the fact that social policy favors certain groups and that the measures taken are often unsustainable: "Another challenge is the enduring tendency of Greek governments to cater to the social needs of old-age pensioners much more than of any other category of welfare state beneficiaries. Typical government measures include distributing ad hoc social assistance benefits to selected categories of the population, hiring the poor and/or the unemployed in the public sector on temporary, five-month-long contracts, and counting on the family to fill in the gaps of a still inchoate social policy. Older family members, particularly if they are already retired, are expected to use their pension or other sources of income to live on, while also offering food and shelter to socially excluded relatives."14 The country experts point to the minimum income scheme introduced in 2017 as a key move to improve the situation, but warn of its uncertain financing: "Finally, since early 2017, after considerable delays and under pressure from the country's lenders, the government implemented a minimum income guarantee program called Social Solidarity Income (KEA) that is based on three pillars: 1) income support, 2) access to social services and goods, and 3) provision of support services for (re)integration into the labor market. The implementation of this long awaited national minimum income scheme is a positive development and undoubtedly a major improvement over all previous programs. However, the financing of the new scheme is not solidified and the program needs the establishment of permanent monitoring and impact assessment mechanisms to prevent the inefficient use of resources."15

15 Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.

<sup>12</sup> Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

<sup>13</sup> Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

<sup>14</sup> Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.

In Turkey, the poverty risk has been reduced from 17.5% to 14.9% since the SJI 2009, but remains high in comparison with other countries (rank 31). Positive economic developments in the country are cited by the country experts as the reason for this improvement. At the same time, the experts point out that some groups, such as homemakers, the elderly or the low-skilled, are particularly affected by poverty: "According to the World Bank (2018), Turkey has experienced a large reduction in poverty and substantial increase in shared prosperity. Between 2002 and 2014, the poverty rate fell from 44% to 18.5% and extreme poverty fell even more rapidly, from 13% to 3.1%. Both moderate and extreme poverty have decreased in rural as well as urban areas due to the economic growth experienced over the period. Poverty is particularly prevalent among people with lower educational attainment, workers in the informal sector, unpaid family careers and homemakers, and the elderly. Poverty reduction has been driven by the availability of more and better-paid jobs, with social transfers playing a minor role. The government has developed an integrated social-assistance system geared toward helping welfare recipients get out of poverty."16

The five countries with the highest poverty rates in the SJI 2019 are Mexico (16.6%), Romania (17.2%), Korea (17.4%), the USA (17.8%) and Israel (17.9%). According to the SGI country experts, the Mexican state's weak capacity to implement major reforms is a key reason for the country's high level of poverty. Although measures to combat extreme poverty were introduced in 2012, they have not yielded much: "Mexico is a socially hierarchical society along a number of dimensions: educational, racial and financial. While democratization has somewhat reduced the most flagrant social divisions, Mexican governments have not been capable or willing to bring substantial change. Moreover, the Mexican state is too weak to carry out major social reforms and there is strong resistance against wealth redistribution. [...] A government policy to address extreme poverty and the lack of adequate sources of food has been effective since 2012, called the Cruzada Nacional Contra el Hambre with its Food Support Program. The policy was intended to reach more than seven million people and has been praised for its effectiveness. It created a database of beneficiaries who were not receiving cash transfers through other government agencies. Nonetheless, in an official report from 2018, CONEVAL noted that the number of poor people had increased from 49.5 million in 2008 to 53.4 million in 2016. The organization has warned that the total of 6,491 social programs – which are carried out by national, regional and local administrations - should be critically reviewed. Poverty is highly concentrated among indigenous and rural populations, indicating another layer of inequality in Mexico. For this reason, there are generally strong regional inequalities in terms of the extent of poverty."17

High poverty rates have persisted in Korea since the SJI in 2009. The situation of older people is particularly dramatic, as nearly half of the country's citizens over 65 live in poverty.<sup>18</sup> The country experts see one reason for the high risk of poverty in the country in the low level of social transfers: "Poverty rates are still above OECD average and old-age poverty in particular is one of the country's urgent inequality issues. Almost half (47.7%) of its citizens aged over 65 currently

<sup>16</sup> Genckaya, Togan, Schulz and Karadag (2019), available at www.sgi-network.org.

<sup>17</sup> Muno, Faust and Thunert (2019), available at www.sgi-network.org.

<sup>18</sup> See also section "Poverty risk among the eldery".

live in relative poverty. In 2016, the poverty rate among Korea's elderly population was the highest in the OECD, at more than four times the OECD average of 12.1%. [...] The South Korean tax and welfare systems are not designed to reduce inequality, and their capacity to prevent poverty is very limited given the low level of social-transfer payments. Currently, Korea just spends 10.4% of its GDP for social purposes, the lowest such rate in the OECD, and just half of the group's average. The Moon administration has begun increasing welfare spending in areas such as the basic pension. The increase in the minimum wage and the substantial reduction in the maximum quantity of weekly working hours allowed, from 68 to 52 hours, are expected to improve social life and wellbeing of employees, although enforcing implementation of both policies beyond government agencies and big companies remains a problem."<sup>19</sup>

In Romania, the country experts note that the frequent changes of government in recent years have meant that important social policy issues have been neglected and the measures that have been taken have proven to be inadequate: "Romania's turbulent political scene and frequent changes in government have meant that efforts to address long-term, structural issues like poverty, health care, and education have floundered. The Cioloş government's comprehensive anti-poverty package issued in April 2016 is past the half-way point, but its efforts to address impoverished and excluded communities through integrated EU and national funds have been ineffective. Recurrent increases in the minimum wage fall short of addressing the complex causes of poverty and social exclusion in Romania."<sup>20</sup>

The poverty rate in the United States is 17.8%, making it the second highest among the countries surveyed. And it is also slightly above the pre-crisis level of 17.2%. There are no improvements to be expected on the horizon; instead, the recent cuts in social spending taken by the Trump administration raise fears that poverty will increase rather than decrease. As the country experts state: "A number of Obama-administration initiatives benefited low-income families, including the extension of health coverage to a larger share of the low-income population. However, deficit politics and Republican resistance to social spending led to cuts in the food-stamp program. About two-dozen Republican-led states declined to expand Medicaid health care for the poor. The number of children living in poverty rose, with 1.3 million children homeless. President Trump and the Republican Congress have made major cuts in programs for the poor-including health care, food stamps, student loans and disability payments. They have sought to exclude undocumented immigrants from receiving the Child Tax Credit or the Earned Income Tax Credit. They have sought to eliminate the expanded low-income health coverage under Obamacare."21

In Israel, which despite slight improvements has the highest poverty rate among the 41 countries considered, there are – as in many other countries – consider– able differences in the poverty risk between individual population groups. The country experts note: "The poverty rate within the Arab minority group is three times higher than in the Jewish majority group, with a similar rate evident in the ultra-orthodox Jewish group. Given this persistent polarization, it is difficult

- 19 Kalinowski, Rhyu and Croissant (2019), available at www.sgi-network.org.
- 20 Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.
- 21 Muno, Faust and Thunert (2019), available at www.sgi-network.org.

to identify significant social-policy successes in Israel in recent years. [...] In recent years, Israel's government launched a five-year comprehensive program aimed at economic and structural development within the Arab population. However, the original budget allocation of ILS 15.5 billion has been reduced to ILS 9.7 billion, excluding the education component. As of 2018, the program is progressing according to plan, with about one-third of the budget having been spent on various projects related to housing, jurisdiction mapping, education, the representation of Arabs in the public sector and the improvement in the quality of local Israeli-Arab authority personnel."22

#### Risk of poverty among children and the older people

In terms of social protections, children and older people over 65 are considered to be particularly vulnerable because they have either not yet entered or have already exited the labor market and therefore do not earn their own income. The inclusivity of a social system can therefore also be reflected to a large extent in the poverty rates of these age groups. A glance at the data shows substantial differences, both between the age groups and between the 41 OECD and EU countries.

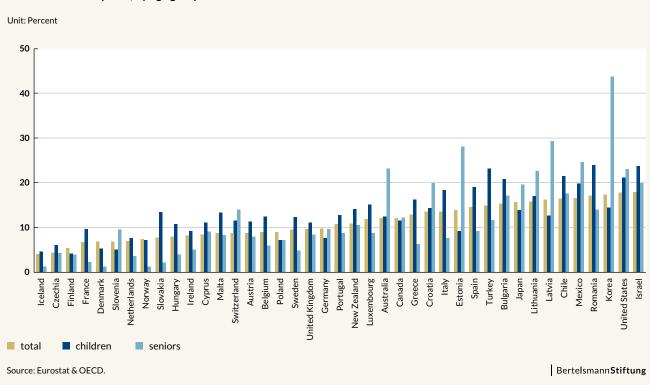


FIGURE 10 Poverty Risk, by age group

#### Children at risk of poverty

Compared to the SJI 2009, the poverty rate of the under-18s has fallen in 21 countries and, in 20 countries, child poverty rates exceed levels recorded 10 years ago. Cyprus shows the strongest increase, with child poverty rising from 5.1% to 11.1% in the past decade (rank 14). The largest decline can be observed in Poland, where the risk of poverty among young people was almost halved from 14.0% to 7.2% (rank 6). One reason for this improvement can be seen in the "Family 500" agenda that was introduced in 2016 and helps improve families' financial situation: "The PiS government has followed a more traditional approach, with the cornerstone of its family policy, which featured prominently in the 2015 election campaign, being the 'Family 500' program, which has been in effect since 1 April 2016. It increased family allowance for parents with two or more children to PLN 500 (€116) for each child irrespective of the parents' income. Departing from the original campaign pledges, only poor families are eligible to the PLN 500 already for the first child. The estimated costs amount to PLN 22.9 billion (about €5.3 billion) or 1.3% of Poland's GDP. While the measures have improved the financial situation of Polish families, critics fear that the Family 500 program will reduce labor-market participation rates among women without having positive effects on the birth rate. In its second year in office, the PiS government adopted a new program, For Life Plus, which includes support for families in difficult situations and with disabled children. This is expected to cost another PLN 3.7 billion."23

Reducing child and youth poverty remains an urgent matter in many countries and is reflected in the fact that child and youth poverty is higher than the poverty rate for the total population in 30 countries. Exceptions to this are Denmark, Estonia, Finland, Germany, Japan, Korea, Norway, Canada, Latvia, Poland and Slovenia. If we compare child poverty rates with old-age poverty, we see that in most countries, older people are hit less hard by poverty than are children. In fact, 27 of the 41 countries surveyed by the SJI 2019 feature child poverty rates that exceed those for people over 65. This is due in part to the fact that pensions in most countries did not fall as sharply during the crisis as did the incomes of younger generations. Currently, child poverty in Belgium, the Netherlands, Spain, Italy, Greece, Sweden and Hungary is at least twice as high as old-age poverty. In Iceland it is more than three times as high, in France and Denmark about four times as high and in Slovakia and Norway six times as high.

In the SJI 2019, child poverty rates vary considerably among the 41 countries surveyed, ranging from 4.2% in Finland to 24% in Romania. The country experts point to three key elements of Finnish family policy: "Finland's family-policy programs aim to create a secure environment for children and support parents' physical and mental resources. By and large, family policy has been successful. For example, child poverty has practically been eradicated. Support for families has three main elements: financial support for services and family leave, child benefits, and the provision of day care services. Access to public day care is guaranteed to all children under seven years of age, and allowances are paid for every child until they turn 17."<sup>24</sup>

<sup>23</sup> Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.

<sup>24</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

### FIGURE 11 Poverty Risk, Children (<18)

Unit: Percent

	rcent			S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Finland	5.8	3.6	3.7	3.7	3.4	3.4	4.0	4.2	-1.6
2	Iceland	4.1	6.5	6.4	5.1	6.0	4.6	4.6	4.6	0.5
3	Slovenia	5.6	7.2	8.3	10.0	8.5	6.6	6.4	5.1	-0.5
4	Denmark	5.2	6.3	4.8	3.3	6.2	5.3	5.4	5.3	0.1
5	Czechia	7.8	9.7	6.3	8.7	9.7	9.5	7.2	6.1	-1.7
6	Norway	5.3	6.6	4.5	4.8	5.6	7.1	7.6	7.2	1.9
	Poland	14.0	13.9	14.5	14.2	13.7	14.0	8.8	7.2	-6.8
8	Germany	8.3	9.4	7.2	8.2	7.8	7.8	6.9	7.6	-0.7
	Netherlands	5.4	5.9	5.7	5.4	6.3	7.6	7.5	7.6	2.2
10	Estonia	11.3	11.9	12.4	14.5	13.9	12.3	10.4	9.2	-2.1
	Ireland	10.0	7.9	8.1	9.0	9.0	11.0	9.2	9.2	⊣ -0.8
12	France	6.8	9.5	9.0	8.9	8.4	9.7	9.6	9.6	2.8
13	Hungary	9.9	10.0	14.7	16.6	14.3	10.2	6.3	10.8	0.9
14	Cyprus	5.1	5.9	9.1	7.5	9.9	8.9	7.2	11.1	6.0
	United Kingdom	13.7	10.1	9.3	10.1	9.6	10.2	11.1	11.1	-2.6
16	Austria	9.6	11.3	9.6	9.4	10.4	9.3	11.0	11.3	1.7
17	Switzerland	10.7	9.4	7.0	6.5	9.5	10.2	10.5	11.5	0.8
18	Canada	15.6	15.7	17.1	15.0	17.1	14.2	11.6	11.6	-4.0
19	Sweden	7.9	9.3	11.1	11.4	11.5	12.8	12.2	12.3	4.4
20	Belgium	8.9	10.3	10.1	10.8	9.6	10.0	10.5	12.4	3.5
21	Australia	12.9	12.9	12.9	13.0	13.0	12.5	12.5	12.5	-0.4
22	Latvia	17.1	20.1	16.3	17.0	17.1	12.2	13.5	12.7	-4.4
23	Portugal	15.7	15.2	17.4	19.1	18.3	16.7	15.6	12.8	-2.9
24	Malta	11.6	10.3	14.5	15.1	14.5	10.8	13.5	13.3	1.7
25	Slovakia	10.1	13.2	13.7	13.6	14.2	14.4	13.4	13.4	3.3
26	Japan	15.7	15.7	16.3	16.3	13.9	13.9	13.9	13.9	-1.8
27	New Zealand	14.0	14.0	12.8	14.1	14.1	14.1	14.1	14.1	0.1
28	Croatia	12.8	12.8	14.8	15.2	14.1	14.6	13.8	14.3	1.5
29	Korea	16.0	16.0	16.0	16.0	16.0	15.2	14.5	14.5	-1.5
30	Luxembourg	9.8	11.8	13.0	12.0	10.8	12.7	13.3	15.1	5.3
31	Greece	15.6	15.3	22.3	19.8	19.3	19.1	17.6	16.2	0.6
32	Lithuania	17.8	18.9	17.8	13.5	20.2	19.9	19.0	17.0	<mark>⊣</mark> -0.8
33	Italy	15.3	17.4	17.7	17.3	19.2	18.9	17.6	18.4	3.1
34	Spain	19.5	21.0	20.2	22.8	23.0	21.9	22.0	19.1	-0.4
35	Mexico	22.7	22.7	22.7	19.7	19.7	19.8	19.8	19.8	-2.9
36	Bulgaria	20.3	21.6	23.1	26.8	19.5	26.1	22.2	20.9	0.6
37	United States	20.5	20.5	20.5	20.2	19.9	20.9	21.2	21.2	0.7
38	Chile	23.0	23.0	22.5	22.5	21.1	21.1	21.5	21.5	-1.5
39	Turkey	25.0	24.9	24.3	24.0	23.5	23.4	23.2	23.2	
40	Israel	23.8	23.8	24.3	24.3	25.5	23.2	23.7	23.7	-0.1
41	Romania	25.5	24.5	26.4	31.4	31.5	30.2	26.2	24.0	
										0 5 10 15 20 25 30

Source: Eurostat & OECD.

Bertelsmann Stiftung

In addition to Finland, Iceland (4.6%), Slovenia (5.1%), Denmark (5.3%) and Czechia (6.1%) are among the top five performers for this indicator. Child poverty rates are most alarming in Bulgaria, the United States, Chile, Turkey, Israel and Romania. In each of these countries, more than 20% of children and youth live in poverty.

In the southern European countries of Spain, Italy and Greece, child poverty has risen in the wake of the economic crisis. Although there has been a slight upward trend in recent years, the rates remain at a persistently high level, ranging from 16.2 percent in Greece to 19.1 percent in Spain. Given that the economic crisis left these governments with limited spending capacity, inner-familial and intergenerational support has played a major role in this respect. This is clearly the case in Italy, as the SGI experts report: "Italian society has traditionally relied very much upon its very strong family institutions. The family (often in its extended version) remains even today a major provider of welfare for its weakest components – children, young couples with precarious jobs and elders. Within the family, significant amounts of economic redistribution take place, and important services are provided, such as the care of preschool age children by grandparents. Partly because of this reliance, state support for families has generally been weak. Apart from relatively generous rules on maternity leave (paid for by social insurance) and limited tax deductions for children, the state has not offered much. [...] Proposals recurrently advanced to introduce important changes to tax policies with respect to families have never materialized, including the "quoziente familiare," which would have divided taxable income by the number of family members. The crisis has left little space for such initiatives, which would strain the state's budget. As a result, only limited subsidies for families with children in the lowest income brackets have been introduced. Because of the economic crisis, the levels of children living in poverty are above average."25

In the United States, the Obama administration assembled a package of measures to improve the financial situation of poor families and single mothers: "Nevertheless, the United States provides significant support for families with children, largely through tax benefits. The policies have the greatest effect for poor families, especially single mothers, partly because of low governmental tolerance for welfare dependency. The Obama administration increased support provided through the Child Care and Development Fund (CCDF), a block grant going to state governments, by \$2 billion. As of 2011, tax benefits for families with children included a dependent-related exemption, a child tax credit, an earned-income tax credit and a child- and dependent-care tax credit, as well as two tuition-related tax benefits for post-secondary education. As a result, effective child care costs as a percentage of income were lower in the United States than in most OECD countries, and for low-income single mothers, much lower."<sup>26</sup> However, the data shows that the measures have had no effect on child poverty, which has remained high (20.5%–21.2%) for ten years.

<sup>25</sup> Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

<sup>26</sup> Muno, Faust and Thunert (2019), available at www.sgi-network.org.

#### Poverty risk among the eldery

Demographic change poses major challenges to most pension systems. Nearly across the board, governments in industrialized countries struggle with ensuring that people over 65 have an adequate income and reducing old-age poverty while making sure that pension systems are sustainable. The country experts note that many governments are too hesitant and do not take enough action to ensure long-term sustainability. This can in part be explained by the fact that the economic upswing of recent years in many countries has increased tax revenues or has reduced the burden placed on public budgets which, in turn, has eased pressures for reform.<sup>27</sup> Another reason cited by some country experts is the fact that demographic shifts are increasing the size of the over-65 age group, which is in turn gaining importance in elections. But this lack of action poses threats to the future and will place a heavy burden on future generations, who are already facing lower pension payments. Governments should also focus on reducing the gender gap in old-age income, as country experts in many countries observe that women are significantly more affected by old-age poverty than men.<sup>28</sup>

Compared to the SJI 2009, poverty rates for those over 65 have been reduced in 28 countries. Cyprus records the sharpest decline, with the old-age poverty rate falling from 24.9% to 9.1% in the past ten years. Reforms to the country's social security system, which include the introduction of a guaranteed minimum income, in part account for this improvement. Yet the country experts also point out that, while women in particular have benefited from these reforms, Cyprus nonetheless has one of the largest gender gaps in pensions within the EU: "A significant improvement in living conditions, in particular among citizens over 65 years of age, is visible in recent years. Elder groups no longer face a very high risk of poverty thanks to changes to various benefits schemes since 2012. [...] Reforms to the social-insurance system increased the retirement age, raised the rate of employers' and employees' contributions, provided special allowances to specific groups, and introduced a guaranteed minimum income (GMI). These measures have partially mitigated the economic crisis's worst ills affecting vulnerable groups. Pensioners, in particular women, appear to have benefited significantly from the GMI, improving their at risk of poverty or social exclusion rate. The European Commission noted in 2017 that the gender gap in pensions is the highest in the EU. It also expressed concerns about the high increase in inequality; it noted however a reverse trend in 2018."29

In Australia, poverty among those over 65 has also declined significantly since the SJI 2009 – by 10.3 percentage points – but nonetheless remains high at 23.2% (rank 37). However, the country experts note that Australian pensioners benefit from spending subsidies and tax breaks, which helps keep the rate of material deprivation relatively low: "Australia has two explicit pension systems, the public age pension and private employment-related pensions. The public age pension is funded from general taxation revenue, and because it is means-tested, it effec-

<sup>27</sup> See also OECD (2017), Pensions at a glance 2017.

<sup>28</sup> The following addresses only the extent to which pension systems adequately protect older generations from poverty. For more on the sustainability and equity of pension systems, see the section titled "Intergenerational justice."

<sup>29</sup> Christophorou, Axe and Karadag (2019), available at www.sgi-network.org.

tively acts as a social safety net. Pensioners enjoy additional benefits such as access to universal health care, concessions on pharmaceutical and other government services, and tax concessions. Currently, the public age pension is still the dominant source of income for retirees. Approximately 70% of pensioners receive a means-tested pension from the government. About 41% of pensioners receive a reduced government pension due to their own assets. The result is that Australian pensioners' income is the second lowest in the OECD compared to the income of the working population. Measured income poverty of pensioners replying on public age pensions is therefore relatively high. However, over 80% of pensioners own their home. This, combined with the large expenditure subsidies they receive, means that broader poverty measures that take wealth and expenditure subsidies into account show low rates of deprivation among this group."<sup>30</sup>

Developments in old-age poverty in the Baltic States are worth noting. In all three countries, poverty among the elderly was significantly reduced between the SJIs of 2009 and 2014. Since then, however, rates in these countries have risen dramatically and now exceed levels recorded before the economic crisis. As a result, Lithuania (22.6%, rank 35), Estonia (28.1%, rank 39) and Latvia (29.4%, rank 40) are at the bottom of the SJI 2019 rankings for the "old-age poverty" indicator. For Estonia, the country experts point to low pensions and changes in the income tax system as drivers of a high rate of old-age poverty: "Old-age pension benefits are indexed, which guarantees slight annual increases based on social tax revenues and the cost of living. In 2018, this indexation resulted in an average pension-payment increase of 5.1%. Due to the low absolute level of benefits (€415 per month), elderly people still struggle to make ends meet. Because wages grow faster than pensions, the senior citizen poverty rate has increased substantially in recent years. The well-being of working pensioners has been hit by changes in the income tax system, which have added pension income to earnt income when calculating income tax."31

For Latvia, too, the country experts point to persistently low pensions as the cause of a high old-age poverty rate: "The average monthly pension in 2017 was €289.40. According to the Central Statistics Bureau, the at-risk-of-poverty rate among retired persons continues to grow rapidly, reaching 44.2% in 2016 compared to 38.1% in 2015 and 27.6% in 2013. In a 2018 report, OECD highlighted the need for Latvia to strengthen the social safety net for elderly people, and raise the basic state pension in order to reduce poverty among pensioners (especially among women) and address the challenge of a rapidly declining population. Latvia's old-age poverty rate is the second highest in the OECD – more than 25% of people aged 65 and over have an income below the relative poverty line. The basic pension level is very low and has not risen in nominal terms for more than a decade. [...] However, the tax reform of 2017/2018 signals a willingness to address some of the problems in the system. The tax reform introduces a progressive taxation of personal income, including pensions. In addition, the non-taxable minimum is higher for pensioners (€235 per month in 2017 up to €300 per month in 2020) than for the working age population (€75 per month in 2017 up to €250 per month in 2020)."32

- 30 Kalinowski, Rhyu and Croissant (2019), available at www.sgi-network.org.
- 31 Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.
- 32 Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

### FIGURE 12 Poverty Risk, Seniors (65+)

Unit: Percent

Unit: Pe	rcent			s	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Denmark	3.0	5.5	3.8	2.8	1.6	1.4	1.5	1.2	-1.8
	Norway	5.3	2.3	1.4	2.1	1.3	1.7	1.5	1.2	-4.1
3	Iceland	4.5	2.1	1.6	1.5	1.0	1.3	1.3	1.3	-3.2
4	Slovakia	2.9	2.2	1.2	1.8	1.6	1.5	2.2	2.2	0.7
5	France	2.5	3.8	3.4	2.9	2.9	2.3	1.8	2.3	-0.2
6	Netherlands	4.3	2.1	2.2	2.8	2.2	3.0	3.0	3.6	-0.7
7	Finland	6.9	4.7	5.0	3.8	2.8	2.4	2.5	3.9	-3.0
	Hungary	1.5	1.4	1.6	1.9	2.2	3.0	4.1	3.9	2.4
9	Czechia	1.6	1.3	1.4	1.8	1.8	1.6	2.5	4.3	2.7
10	Sweden	4.9	4.1	5.4	3.8	4.6	4.9	4.8	4.8	-0.1
11	Ireland	6.2	6.0	7.2	7.4	5.8	6.4	5.1	5.1	-1.1
12	Belgium	8.8	7.8	5.8	6.5	5.3	6.3	5.4	5.9	-2.9
13	Greece	12.3	9.6	6.5	7.8	7.1	6.9	7.0	6.3	-6.0
14	Poland	5.2	6.8	6.2	5.5	5.7	6.3	6.5	7.2	2.0
15	Italy	11.5	7.9	6.8	6.1	6.8	7.5	7.8	7.6	-3.9
16	Austria	10.5	9.8	9.8	8.4	7.2	6.6	6.7	8.0	-2.5
17	Malta	12.4	9.5	6.8	5.8	8.4	8.9	9.3	8.3	-4.1
18	United Kingdom	15.3	12.1	9.0	9.8	9.8	10.0	8.4	8.4	-6.9
19	Portugal	11.7	10.1	6.3	8.7	9.1	9.7	8.0	8.7	-3.0
20	Luxembourg	2.2	3.1	2.8	2.7	3.3	6.7	6.8	8.8	6.6
21	Cyprus	24.9	21.8	7.9	8.8	6.4	8.6	9.1	9.1	-15.8
22	Spain	15.1	11.0	6.3	5.3	5.8	6.0	8.1	9.2	-5.9
23	Slovenia	12.4	11.4	11.4	9.1	9.5	10.4	8.9	9.5	-2.9
24	Germany	7.5	7.0	8.0	9.1	9.0	9.4	9.2	9.7	2.2
25	New Zealand	9.1	9.1	8.2	10.6	10.6	10.6	10.6	10.6	1.5
26	Turkey	13.7	14.4	13.5	14.4	13.6	11.8	11.7	11.7	-2.0
27	Canada	9.3	10.0	8.5	9.0	10.7	10.5	12.2	12.2	2.9
28	Romania	16.2	9.8	7.5	9.2	11.7	11.0	12.8	14.0	
	Switzerland	17.2	17.2	19.1	16.4	16.5	16.9	17.9	14.0	-3.2
30	Bulgaria	18.3	22.1	16.5	11.9	19.2	12.0	18.3	17.1	⊣ -1.2
31	Chile	14.9	14.9	15.0	15.0	16.3	16.3	17.6	17.6	2.7
32	Japan	19.4	19.4	19.0	19.0	19.6	19.6	19.6	19.6	0.2
33	Croatia	19.2	19.2	14.4	14.3	16.3	17.2	18.9	19.9	0.7
	Israel	23.8	23.8	24.1	22.6	21.2	19.4	19.9	19.9	
35	Lithuania	14.5	3.7	8.4	8.3	12.1	15.2	19.3	22.6	8.1
36	United States	20.6	20.6	20.6	21.0	20.9	22.9	23.1	23.1	2.5
37	Australia	33.5	33.5	33.5	25.7	25.7	23.2	23.2	23.2	-10.3
38	Mexico	27.0	27.0	27.0	25.6	25.6	24.7	24.7	24.7	-2.3
39	Estonia	17.2	3.7	5.1	8.0	10.7	16.5	20.8	28.1	10.9
40	Latvia	37.2	6.1	6.5	10.1	16.4	22.9	25.0	29.4	-7.8
41	Korea	44.3	44.3	44.3	44.3	44.3	45.0	43.8	43.8	
										0 5 10 15 20 25 30 35 40 45

Source: Eurostat & OECD.

In this year's SJI, we see a wide range in old-age poverty rates among the 41 OECD and EU countries, varying between 1.2% in Denmark and Norway and 43.8% in Korea. In addition to Denmark and Norway, less than three percent of those over 65 in Iceland, Slovakia and France are affected by poverty. A unique feature of the Icelandic pension system is that it is financed exclusively through taxes. As the country experts state: "Iceland's pension system is a fully funded one rather than pay-as-you-go. Pension policy is based on a tax-financed, means-tested social security program supported by tax incentives to encourage participation in occupational pension funds and voluntary savings schemes. The pension funds, which are based on employee contributions of 4% of total wages and employer contributions of 8%, are designed to provide a pension equivalent to 56% of an individual's average working-life wage. In addition, employees can opt to pay a further 4%, with a further employer contribution of 2%, into a voluntary savings program."<sup>33</sup>

In contrast, the Danish pension systems is based on three pillars, as is the case in many other countries. The combination of these pillars protects older people from poverty and provides pensioners with an income that is commensurate with their income they've earned over the course of their lives. As the country experts explain: "The Danish pension system is well-structured in accordance with the World Bank's three-pillar conceptual framework. Concerning the first pillar, Denmark has public pensions in the form of a universal base pension with means tested supplements. For the second pillar, labor market pensions are negotiated in the labor market but mandatory for the individual. The contribution rate has been increased over the years and is now 12% or more for most employees. As for the third pillar, it is comprised of both tax-subsidized pension arrangements (tied until retirement) offered by insurance companies, pension funds and banks as well as other forms of savings (for most households in the form of housing wealth). The combination of the different pillars of the pension scheme creates a pension system that both protects against low income for the elderly (distributional objective) and ensures that most have a pension which is reasonable in relation to the income earned when the pensioner was active in the labor market (high replacement rates). [...] The division of work between the public and private pension systems, however, has its problems. The means testing of public pension supplements implies that the net gain from additional pension savings or later retirements can be rather low (high effective marginal tax rates) for a broad segment of income earners. Moreover, the system is very complicated. In addition, there is the problem of citizens outside the mandatory labor market pensions (the "residual" pension group)."34

The French pension system is also relatively generous and largely keeps the elderly from living in poverty (2.3%, rank 5). However, the country experts note that the system is complex and not without its injustices: "First, the so-called general regime applies to all private employees and is complemented by additional voluntary systems, in particular in large companies. Second, some professions are affiliated to "special regimes" which are characterized by shorter periods of contribution and higher generosity in pension payments. These systems usually

<sup>33</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

<sup>34</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

cover employees working in public companies or groups highly subsidized by the public budget (coal mines, public transport, sailors and fishermen, for example). Finally, public servants usually benefit from higher payments as their pension payments are based on their final salary (last six months), and not on an average (e.g., best 25 years)."<sup>35</sup> In order to ensure the sustainability of the pension system, the French governments have continuously introduced reform measures over the last ten years: "Pension contributions have been raised, the number of years of contribution needed to get a full pension has been risen to 43 years, and the peculiarities or privileges granted to a some professional groups ("special regimes") have been downsized. Macron has deliberately chosen to reduce the advantages enjoyed by the pensioners in order to increase the income of people in work. This has been done by increasing a universal tax paid (CSG, Cotisation sociale général-isée – Universal Social Contribution) and eliminating a social contribution paid only by salaried people. The government has also decided that in 2019, pensions will be increased by only 0.3%, while the inflation estimate for 2018 is 1.6%."<sup>36</sup>

In Hungary, poverty among the elderly is also low at 3.9%, but this rate is almost twice as high as the rate registered by the SJI 2016. The country experts attribute this development to reforms brought on by the Orban government: "Hungary introduced a three-pillar pension system along World Bank guidelines in 1997 that featured a strong mandatory, fully funded second pillar. Upon coming to office, the second Orbán government abolished this second pillar and confiscated its assets. It also shifted disability pensions to the social assistance scheme, eliminated some early-retirement options and did not reverse the shift from Swiss indexation (which adjusts outstanding pensions by the average of the price and wage indices) to price indexation, as it had been introduced by the previous government in the context of the great recession. As a result, pensioners have not benefited from the strong recent growth in wages. These changes have improved the financial sustainability of the first pension pillar but have also increased poverty among pensioners."<sup>37</sup>

Overall, the risk of poverty among older people varies widely in eastern Europe. While poverty rates among those over 65 is relatively low in Slovakia, Czechia, Hungary and Poland (2.2%-7.2%), substantially higher rates are recorded in Croatia (19.9%), Bulgaria (17.1%) and Romania (14.0%). For Romania, country experts report not only of low pensions, but also severe discrimination against women and the unequal treatment of "ordinary citizens" and those who are deemed to be politically connected: "Poverty among pensioners remains a problem as well. The situation is particularly dire in the agricultural sector, where workers of the former agricultural cooperatives were left with very low pensions following the dissolution of these cooperatives after 1990. As a result, many retirees live below or near the poverty limit, and many more rely on support from relatives to supplement their pensions. In part due to their lower pension-eligibility age, women typically have considerably lower pensions than men, and therefore have double the poverty-risk rates. A further problem is that the pension system is not equitable at all, as there are huge differences between the pensions of ordinary citizens and the pensions of the politically connected. The latter often benefit from

<sup>35</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>36</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>37</sup> Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.

additional pension claims based on positions in public administration or public enterprises that involve very little effort, but are primarily used for syphoning off government resources to loyal party supporters."<sup>38</sup>

In Korea, almost every second person (43.8%) over 65 years of age is at risk of poverty and has been since the SJI 2009. This makes Korea's old-age poverty rate by far the highest in the country sample. Low pensions and the state pension system's limited reach are cited as reasons for this situation: "Old-age poverty is a major problem in Korea, as pensions are small, and most elderly people today lack coverage under a national pension system that did not cover a large share of the workforce until its expansion in 1999. The government has also failed to enforce mandatory participation in the system, and many employers fail to register their employees for participation. The level of the national pension benefit is still very low, and employees in private companies are often pressured to retire long before the legal retirement age of 60 (which will gradually increase to 65 by 2033). Thus, pension reform has been one of the Moon administration's top priorities, although changes have to date been slow. The basic pension will gradually increase to KRW 300,000 a month by 2021, from its current maximum of KRW 206,050, with benefit eligibility coming at the age of 65. This pension will be provided to the 70% of elderly classified as low-income."39

The limited reach of Mexico's pension system is also the main factor in the fact that nearly one in four of the elderly lives in poverty. Low pension contributions paid by employees and employers is another contributing factor. However, the country experts express the fear that an increase in contributions could lead to a decrease in regular employment and a further increase in informal employment: "Mexico is slowly shifting from a pensions system based on contributions and corporate identity to one that is more universalistic in character, operated by government-approved financial agencies called Afores. Some Mexican states have in recent years introduced noncontributory old-age pensions based on universal eligibility. A pension reform plan is now underway to introduce a universal old-age pension for Mexicans over the age of 65. [...] While improving, the current system is not robust enough to cope with the growing population of elderly people. Historically, Mexico's pensions policy has been based on the principle of contributions, which has not provided any, let alone an adequate, safety net for the elderly poor. However, some parts of Mexico, notably the capital district, now have a limited old-age pension system based on a universal entitlement. One of the key problems with the current pension system in Mexico is its low coverage: in 2016, only 27% of the working age population had a pension account, a rate below that of countries like Chile, Costa Rica and Uruguay. Moreover, increasing mandatory contributions is not a viable solution in the Mexican context, as it would further incentivize informal employment. An increase in mandatory contribution would have to be accompanied by more comprehensive measures that account for the complexity of the Mexican labor market and the government's fiscal capacity. The new finance minister, Carlos Urzua, announced a reform of the pension system that will be introduced during the new government's six-year term. Urzua discussed the low employer and employee pension contributions that lag far behind other OECD countries in terms of the percentage of total wages."40

- 38 Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.
- 39 Kalinowski, Rhyu and Croissant (2019), available at www.sgi-network.org.
- 40 Muno, Faust and Thunert (2019), available at www.sgi-network.org.

Things look only marginally better in the United States where poverty among the aged is widespread (23.1%, rank 36). The country experts attribute this in part to the fact that many Americans do not have access to firm-based pension schemes. In addition, the financial crisis has hit many pension funds hard which has resulted and will result in payment defaults: "The Social Security retirement program is the main public pension system, complementing various employer-based pension plans, tax-subsidized retirement saving plans (401k plans) and private retirement accounts. Social Security is funded by mandatory employee and employer contributions, totaling 12.4% of wages, on wages up to approximately \$120,000 per year. The wage replacement rate of the public system is on average 45%, below the OECD average, though with higher rates for people with lower incomes. Benefits from company-based and private accounts raise the wage-replacement rate to 80%. However, 78 million Americans have no access to company-based retirement plans. In addition, the financial crisis hit the asset base of pension funds, resulting in current or expected future failures to make full payments by many private employers."41

The SJI 2019 records Germany's poverty among the aged at 9.7% (rank 24). Recent reforms in the country have targeted improving the situation for homemakers with children and people with disabilities. In addition, increases to pensions have been quite generous in recent years, thanks to the employment boom and increasing salaries. The country experts also report that the German government has taken steps to curb a fall in pension levels and an increase in old-age poverty due to demographic change: "First, the government reduced the retirement age by two years for workers who have contributed to the pension system for at least 45 years. Second, it provided a catch-up for housewives with children born before 1992 relative to those with children born after 1992. The calculation will now include two additional years of (fictive) contributions. It is expected that about seven million mothers will benefit and is the most expensive measure within the reform package. Pensions for people with disabilities were improved. [...] The largest challenge for the system's stability is demographic change, with the baby-boomer generation reaching retirement age in the 2020s. This will dramatically increase the ratio of pensioners to the active workforce. This trend would automatically lead to cuts in the level of pensions (relative to the average wage level) and may increase the risk of poverty in old age. To address this challenge, in 2018 the government agreed to establish the so-called double stop-line. This includes the double guarantee that the contribution rate will not increase above 20% and the pension level will not fall below 48% of the average wage. However, these guarantees will only hold to 2025, while the strong increase in the pensioner-to-worker ratio will occur after that."42

In the southern European countries of Italy, Spain, Portugal and Greece, old-age poverty is significantly lower than ten years ago. Currently, it ranges between 6.3% in Greece (rank 13) and 9.2% in Spain (rank 22). The Greek pension system in particular has undergone major reforms in recent years, which include the introduction of a basic pension. However, the country experts are critical of the system's lack of sustainability and point to planned pension cuts: "The latest

<sup>41</sup> Muno, Faust and Thunert (2019), available at www.sgi-network.org.

<sup>42</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

2016 reform (Law 4387) abolished all special arrangements, unified all pension fund schemes as well as rules on contributions and benefits under a new body (EFKA). This latest reform also established a general system of defined benefit pension plans and the introduction of a basic pension financed by general tax revenue. According to the law, the main pension is made up of a national pension (set at  $\in$  384 at the full rate and financed by the state budget) and a "redistributive" pension calculated on the basis of the average reference wage over the whole working life, the length of contributions, and the replacement rate. [...] In May 2016, the government passed legislation which increased social insurance contributions and reduced the supplementary pensions for retirees. New pension legislation has cut pension payments by up to 30%, while poor policy design led to continuous legislative amendments of the 2016 pension reform. The last phase of this reform is expected to take place in January 2019, when, based on the Memorandum of Understanding signed between Greece and its creditors in the summer of 2015, the government should implement further cuts on pensions."43



## 2. Equitable education

In recent years, the average score for the equitable education dimension across the 41 EU and OECD countries has risen by only a small amount. However, this increase has been steady. Overall, a total of 31 countries show a higher score today than in the SJI 2014. The most significant increases in this period, although beginning from a relatively low level, were evident in Slovakia (+1.05), Chile (+0.86) and Portugal (+0.72). Education-related scores have also risen by more than 0.5 points since 2014 in Germany, Israel and Denmark. The most adverse developments have taken place in Czechia and Hungary, where already-low scores deteriorated again. Scores in Iceland, Estonia, Lithuania, Belgium, Japan, Luxembourg, the Netherlands and Turkey are also slightly lower than five years ago.

More encouragingly, the percentage of people who have completed less than an upper-secondary level of education has decreased over the last five years in 36 of the 41 countries reviewed – in some cases quite significantly.<sup>44</sup> However, the range of values seen for this measure remains very broad, varying between 5.2% of the population in Lithuania and 62.6% in Turkey. In addition, some countries exhibit large sex-specific differences for this indicator. For instance, in Austria, Korea and Czechia, the percentage of women who do not have at least an upper-secondary-level education is more than 50% above the corresponding value for men. The contrary is true in the Baltic states. In Estonia, Latvia and Lithuania, the share of the female population that has not completed at least an upper-secondary-level education is more than 40% lower than the corresponding percentage in the male population.

<sup>43</sup> Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.

<sup>44</sup> For Japan, no comparison with 2014 is possible, as the most current data for this indicator comes from 2010.

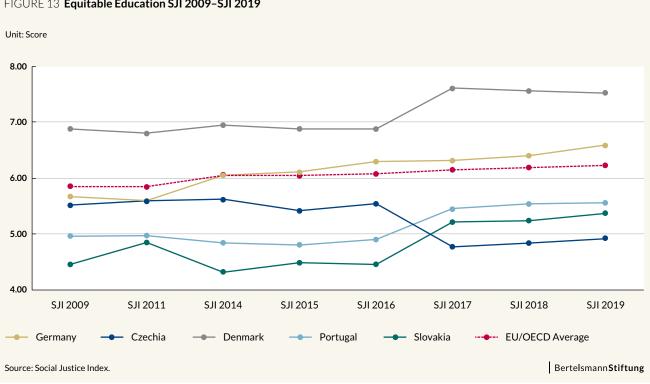


FIGURE 13 Equitable Education SJI 2009-SJI 2019

The foundations for future educational successes are laid in early childhood. In this context, it is fundamentally encouraging that 26 of the 41 countries surveyed have expanded their financial commitments to this educational segment since the SJI 2009. However, the increase in expenditure amounts to more than 0.1 percentage point of GDP in just 15 of these countries. Sweden has expanded its investment in pre-primary education most significantly, with its expenditure level increasing from 0.59% of GDP in the SJI 2009 to 1.29% (rank 1) in the SJI 2019. By contrast, the largest decline was evident in Malta, where state expenditure in this area fell from 1.02% of GDP to 0.53% over the same time period. The United Kingdom, Australia, Japan and Ireland spend the least in this sector, investing less than 0.25% of GDP in preschool education.

The extent to which social justice is realized within an education system can be seen particularly in the degree to which it offers equal opportunities for a successful educational career to all children and young people. In this regard, it is a matter of continuing concern that in many countries, students' socioeconomic backgrounds continue to have great influence on educational outcomes. In 18 countries, this influence has even increased in comparison to the SJI 2009. This unequal distribution of opportunities is worrying insofar as success within the education system has a significant effect on labor-market opportunities, and thus also on future opportunities for social participation. Urgent action is needed in this area particularly in Belgium, Bulgaria, Czechia, Hungary and France. These are the countries in which educational outcomes depend most strongly on socioeconomic background. The best results for this indicator are found in Iceland, Turkey, Norway, Cyprus and Estonia.

### FIGURE 14 Equitable Education

Unit: Score

				So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Denmark	6.88	6.81	6.95	6.88	6.88	7.62	7.57	7.52	0.64
2	Norway	6.93	6.93	7.14	7.30	7.34	7.50	7.47	7.51	0.58
3	Sweden	6.99	6.98	7.21	7.36	7.32	7.45	7.44	7.39	0.39
4	Canada	7.03	7.04	7.13	7.14	7.13	7.40	7.32	7.31	0.28
5	Iceland	7.45	7.70	7.59	7.25	7.32	7.60	7.53	7.28	-0.17
6	Finland	7.18	7.20	7.04	7.44	7.29	7.13	7.05	7.06	-0.12
7	Slovenia			6.66	6.53	6.48	6.97	6.96	7.00	
8	Israel			6.27	6.23	6.40	6.63	6.77	6.94	
9	New Zealand	5.97	5.94	6.26	6.24	6.15	6.73	6.89	6.76	0.79
10	Estonia			7.03	6.89	6.94	6.72	6.72	6.73	
11	United Kingdom	5.76	5.75	6.37	6.38	6.45	6.72	6.82	6.69	0.93
12	Latvia			6.31	6.65	6.31	6.81	6.70	6.68	
13	Poland	6.03	6.44	6.60	6.75	6.76	6.78	6.83	6.63	0.60
14	Germany	5.67	5.60	6.05	6.12	6.30	6.32	6.40	6.60	0.93
15	Switzerland	5.43	5.83	6.13	6.18	6.24	6.19	6.44	6.56	1.13
16	United States	5.78	6.10	6.46	6.46	6.44	6.55	6.54	6.55	0.78
17	Croatia			6.40	6.40	6.36	6.20	6.30	6.50	
18	Lithuania			6.85	6.71	6.65	6.34	6.33	6.46	
19	Cyprus			6.31	6.32	6.29	6.32	6.43	6.33	
20	Netherlands	6.41	6.24	6.40	6.43	6.44	6.25	6.30	6.31	-0.09
21	Korea	6.12	5.93	6.17	6.20	6.25	5.76	5.82	6.31	0.19
22	Australia	5.49	5.86	6.05	5.95	5.99	6.00	6.15	6.27	0.78
	EU/OECD Average	5.85	5.85	6.05	6.05	6.08	6.15	6.19	6.23	
23	Spain	6.04	6.00	6.04	5.87	5.83	6.03	6.03	6.15	0.12
24	Japan	6.51	6.31	6.37	6.37	6.37	5.99	5.99	6.14	-0.37
25	Italy	6.27	6.13	6.03	6.04	6.18	6.06	6.10	6.08	0.19
26	Belgium	6.08	5.93	6.10	5.99	6.05	5.97	5.99	6.01	-0.06
27	Chile		5.10	5.11	5.37	5.47	6.18	6.00	5.97	
28	Bulgaria			5.34	5.26	5.43	5.94	5.86	5.82	
29	Ireland	5.55	5.27	5.47	5.48	5.51	5.81	5.76	5.78	0.23
30	Luxembourg	4.75	5.13	5.90	5.60	5.86	5.43	5.59	5.73	0.98
31	Greece	5.15	5.21	5.32	5.63	5.65	5.48	5.54	5.58	0.42
32	Mexico	5.09	5.22	5.44	5.44	5.48	5.36	5.54	5.57	0.48
33	Portugal	4.96	4.97	4.84	4.80	4.90	5.46	5.54	5.56	0.60
	Malta			5.12	5.26	5.27	5.38	5.49	5.53	
	France	5.21	5.29	5.16	5.16	5.28	5.31	5.46	5.50	0.29
	Austria	5.04	4.67	5.15	5.06	5.17	5.34	5.47	5.43	0.39
	Slovakia	4.46	4.85	4.32	4.49	4.46	5.22	5.24	5.37	0.91
38	Romania			5.11	4.83	4.87	5.16	5.22	5.23	
	Hungary	5.47	5.01	5.43	5.09	5.17	4.79	4.88	4.97	-0.50
	Czechia	5.52	5.60	5.63	5.42	5.54	4.77	4.84	4.92	-0.60
	Turkey	4.41	4.39	4.82	4.96	4.95	4.56	4.59	4.70	0.29

Source: Social Justice Index.

The top position in the SJI 2019's education ranking is held by Denmark. Norway, Sweden, Canada and Iceland all follow closely behind. By contrast, educational opportunities are distributed least equitably in Slovakia, Romania, Hungary, Czechia and Turkey.

Investing 1.25% of GDP in the area of pre-primary education, Denmark shows the second-strongest financial commitment in this area, trailing close behind Sweden. Also reflecting well on Denmark's education quality is the fact that the country's percentage of PISA low performers in all subjects has fallen to just 7.5%, with only five of the 41 countries surveyed performing better. Moreover, the influence of socioeconomic background on education outcomes has been cut nearly in half as compared to the SJI 2014; currently, Denmark sits at 11th place in the country sample for this indicator. According to the country experts, these improvements stem in large part from an education reform passed in 2013: "These improvements are partly attributable to recent reforms, including reforms to the primary and lower-secondary school systems. A major reform in 2013 granted more discretionary power to the school principal to allocate teacher resources and keep pupils in school for more hours. Since 2014, school days have become longer, there is more assisted learning, there are more lessons in Danish and math, and the teaching of foreign languages has been strengthened (English made compulsory from level 1, German and French from level 5). To strengthen the continued development of teachers' competencies the government has allocated one billion DKK from 2014 to 2020."45

However, more work is needed with regard to the integration of children with a migrant background into the Danish educational system. On the "PISA low performers according to socioeconomic background" indicator, the northern European country sits at just 22<sup>nd</sup> place, despite some slight improvements: "One problem is the fact that immigrant students score markedly lower than Danish students, a problem particularly pronounced among boys. However, second-generation students do relatively better than first-generation students, especially girls.<sup>46</sup>

Norway numbers among the countries in which education outcomes depend least on students' socioeconomic backgrounds (rank 3). According to the country experts, "Like other Scandinavian countries, the Norwegian government spends a comparatively significant share of its budget on public education. The emphasis of the primarily public school system is on free access and ensuring equal opportunities. Students with difficulties in learning or socialization receive a high level of attention."<sup>47</sup>

In Sweden, despite the overall very good performance, the country experts see potential for improvement. They note that "recent studies suggest that Swedish students' knowledge in key subjects are falling behind students in other countries. Notwithstanding, this remains an alarmingly poor ranking for a country relying on knowledge-intensive sectors for its economic growth and competitiveness [...] Critics also point to the high level of youth unemployment, which suggests

<sup>45</sup> Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

<sup>46</sup> Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

<sup>47</sup> Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org.

## FIGURE 15 PISA Performance, Socioeconomic Impact

Unit: Standardized Scale

				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	1.20	1.67	1.87	1.87	1.87	1.35	1.35	1.35	0.15
2	Turkey	4.02	5.51	4.30	4.30	4.30	1.83	1.83	1.83	-2.19
3	Norway	2.97	3.10	2.07	2.07	2.07	1.98	1.98	1.98	-0.99
4	Cyprus	2.83	2.83	2.83	2.83	2.83	2.01	2.01	2.01	-0.82
5	Estonia	2.21	2.20	1.76	1.76	1.76	2.24	2.24	2.24	0.03
6	United States	8.40	7.06	4.20	4.20	4.20	2.52	2.52	2.52	-5.88
7	Mexico	4.03	3.63	2.27	2.27	2.27	2.54	2.54	2.54	-1.49
8	Latvia	2.90	2.99	5.00	5.00	5.00	2.64	2.64	2.64	-0.26
9	Canada	3.47	2.75	2.41	2.41	2.41	2.76	2.76	2.76	-0.71
10	United Kingdom	5.25	6.03	4.75	4.75	4.75	3.10	3.10	3.10	-2.15
11	Denmark	3.48	5.22	5.99	5.99	5.99	3.22	3.22	3.22	-0.26
	Spain	2.82	3.94	3.92	3.92	3.92	3.22	3.22	3.22	0.40
13	Italy	2.25	3.78	2.98	2.98	2.98	3.63	3.63	3.63	1.38
14	Finland	2.21	2.42	2.47	2.47	2.47	3.70	3.70	3.70	1.49
15	Portugal	5.85	4.95	5.18	5.18	5.18	3.98	3.98	3.98	-1.87
16	Japan	2.88	3.44	2.99	2.99	2.99	4.13	4.13	4.13	1.25
17	Israel	3.26	5.38	4.96	4.96	4.96	4.16	4.16	4.16	0.90
18	Chile	7.05	5.80	6.37	6.37	6.37	4.20	4.20	4.10	-2.85
19	Lithuania	5.43	4.49	3.56	3.56	3.56	4.22	4.22	4.22	2.39
20	Korea	1.84	3.52	2.57	2.57	2.57	4.23	4.23	4.23	
21	Slovenia	5.91	5.58	5.62	5.62	5.62	4.28	4.28	4.28	-1.63
22	Croatia	3.31	3.52	3.75	3.75	3.75	4.47	4.47	4.47	1.16
23	Greece	3.67	4.25	4.06	4.06	4.06	4.48	4.48	4.48	0.81
24	Ireland	4.63	4.91	5.89	5.89	5.89	4.49	4.49	4.49	-0.14
25	Australia	4.84	5.84	4.98	4.98	4.98	4.52	4.52	4.52	-0.32
26	Sweden	3.05	5.76	3.45	3.45	3.45	4.57	4.57	4.57	1.52
27	Poland	5.57	5.77	4.77	4.77	4.77	4.80	4.80	4.80	-0.77
28	Germany	7.51	7.88	5.61	5.61	5.61	4.86	4.86	4.86	-2.65
29	Netherlands	5.47	4.74	4.17	4.17	4.17	4.89	4.89	4.89	-0.58
30	Switzerland	5.54	5.64	5.22	5.22	5.22	5.06	5.06	5.06	
31	New Zealand	7.26	8.63	8.51	8.51	8.51	5.19	5.19	5.19	-2.07
32	Malta	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	0.00
33	Romania	3.49	4.90	6.33	6.33	6.33	5.57	5.57	5.57	2.08
34	Austria	5.99	7.97	6.42	6.42	6.42	6.57	6.57	6.57	0.58
35	Luxembourg	8.48	7.20	5.82	5.82	5.82	7.54	7.54	7.54	-0.94
36	Slovakia	6.63	5.99	13.39	13.39	13.39	7.57	7.57	7.57	0.94
37	Belgium	7.59	9.07	6.30	6.30	6.30	7.77	7.77	7.77	0.18
38	Bulgaria	12.47	10.30	11.52	11.52	11.52	8.17	8.17	8.17	-4.30
39	Czechia	6.43	5.70	6.76	6.76	6.76	9.48	9.48	9.48	3.05
40	Hungary	8.71	12.48	8.47	8.47	8.47	10.25	10.25	10.25	1.54
41	France	7.93		10.90	10.90	10.90		10.49	10.49	2.56

Source: OECD PISA.

that the education system fails to provide skills and knowledge demanded by the contemporary labor market [...] A final criticism is that the skills required to enter into a teachers' education program at universities today are relatively low, hence there is very little competition to enter those programs. As a result, new teachers may have only a limited aptitude to teach successfully [...] Nevertheless, equitable access to education is realized to a great extent for adult education. Sweden is rather successfully targeting the ambitious goals of life-long-learning as a high percentage of adults are regularly in contact with further education organizations."<sup>48</sup>

Canada scores well particularly due to the high quality of its educational system. Only 8.4% of the country's 25- to 64-year-olds have less than an upper-secondary-level education. In addition, only 5.9% of students fell into the category of low performers in all subjects in the last PISA study (rank 3). According to the country experts, "Equity in access to education is impressive. Canada has the highest proportion of the population aged 20 to 64 with some post-secondary education, thanks to the extensive development of community colleges. There are many educational second chances for Canadian youth. The high school completion rate is also high and rising. Socioeconomic background represents a much lower barrier to post-secondary education in Canada than in most other countries. [...] The federal government has recently increased grant money for students from low- and middle-income families by 50%."49 By contrast, the experts see a need for improvement with regard to the expansion of educational opportunities for the indigenous population. "Despite the strengths of the Canadian education and training system, there are challenges, the biggest of which is the gap in educational attainment between the indigenous and non-indigenous populations. Schools on reserves are funded federally through Indigenous and Northern Affairs Canada. A recent evaluation carried out for the ministry found that education opportunities and results are not comparable to those off the reserves, that the comparatively lower quality of teacher instruction and curriculum is affecting student success, and that funding gaps relative to provincially funded regular (off-reserve) schools persist, especially in isolated, low-population communities. The 2016 federal budget included CAD 2.6 billion for First Nations schooling, grades primary to twelve, in an effort to narrow the education gap. Furthermore, in December 2016, an agreement was reached to establish a First Nations School System in Manitoba. However, the largest portion of this spending will not be allocated until the 2020 - 2021 fiscal year."50

In the neighboring United States, data indicates that the quality of education is lower than in Canada. For example, the share of PISA low performers in all subjects in the United States, at 13.6% (rank 25), is more than twice as high as that of its northern neighbor. The low level of expenditure in the area of pre-primary education is also striking. The United States invests just around 0.3% of GDP (rank 34) in this area – thus, less than a quarter of the corresponding share expended by countries such as Sweden or Denmark. On the positive side, the social selectivity of the education system has declined steadily since the SJI 2009 (rank 6). Never-

<sup>48</sup> Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

<sup>49</sup> Kessler, Sharpe and Thunert (2019), available at www.sgi-network.org.

<sup>50</sup> Kessler, Sharpe and Thunert (2019), available at www.sgi-network.org.

theless, the country experts identify large differences between wealthy and poorer areas, and note declining opportunities to obtain a university degree for youth from socially disadvantaged families: "The performance of primary and secondary education in the United States has long been disappointing. [...] High school students' performance in science, math and reading remains below most wealthy OECD countries. Yet the educational system is generously funded. Its shortcomings are the result of several factors, including the impact of deficiencies in the home environments of many children in low- income/minority neighborhoods, severe inequalities in school quality between wealthy and low-income areas, a lack of accountability for outcomes in the fragmented system, and effective resistance to school reforms by powerful teachers' unions. Whereas Federal engagement became more extensive and ambitious during the Obama administration, the Trump administration cut federal education programs by more than \$10 billion. Under Education secretary Betsy DeVos, the administration has redirected funding to support school-choice initiatives, which seek to improve education by enhancing accountability to parents while reducing the power of teachers' unions and state-level education bureaucracies [...]. As college and university costs have increased, financial aid for low-income students has failed to keep up. As a result, students from the top income quintile are now at least three times as likely to graduate as those from the lowest quintile. Trump has cut budgets for college loan programs and has relaxed accreditation requirements for the often-predatory for-profit higher education sector."51

In Finland, equal access for all to high-quality education and training programs is required by law. However, students' educational outcomes are increasingly dependent on their socioeconomic backgrounds (rank 14), and significant regional and gender-specific differences in student performance are evident: "By and large, Finland's education system has proved successful and in recent years ranked at the top of the OECD's Program for International Student Assessment. However, while Finland remains among the top performers, the ranking of the country appears to be slipping as gender and regional disparities in student performance significantly grow. [...] In 2016, new curricula for compulsory basic education was introduced, designed to increase equality in compulsory education, enhance pupil participation in goal-setting and evaluation, and integrate more technology in teaching. While the curricula reflect more thoroughly the growing needs of a knowledge society, it has been criticized for the short period of transition involved with implementing it and the lack of resources and training for teachers. Additionally, partial restrictions on the right to day care for children whose parents are not participating in the labor market undermine equal access to early education in some communities, especially in socially vulnerable families."52

The country experts for New Zealand offer a strong review of that nation's educational system: "New Zealand's education policy continues to deliver high quality, equitable and efficient education and training. According to the OECD's Education at a Glance 2018 Report, performances across all levels of New Zealand's education sector compare well with those in other developed countries, especially in relation to early childhood achievement. Young New Zealanders are more likely to leave

<sup>51</sup> Quirk, Lammert and Thunert (2019), available at www.sgi-network.org.

<sup>52</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

school sooner, entering the workforce and perhaps returning to further education when they're older.[...] While New Zealand spends less per student than the OECD average, as a percentage of total public expenditure it remains one of the highest in the OECD. Literacy and problem–solving in technology–rich environments are higher than OECD averages across all education levels, while numeracy skills are closer to the OECD average. [...] Participation in vocational programs is also high, as are levels of part-time study and adult participation rates in non–formal education. While today's adults are significantly more educated than their parents across all OECD countries, New Zealand's educational upward mobility has been faster than OECD average, which partly reflects higher levels of qualified immigrants in New Zealand than in most other OECD countries."<sup>53</sup>

The performance of Estonia's education system has also been impressive (rank 10). The influence of socioeconomic background on educational outcomes there is low (rank 5). In addition, despite a slight increase compared to the SJI 2016, Estonia shows the SGI 2019's lowest overall percentage of PISA low performers in all subjects, at just 4.7%. The country experts highlight a number of strengths within the country's education system: "Particular system strengths include the small number of low achievers and low school-level variance in student achievement. Enrollment rates at various education levels, including lifelong learning courses, are above the international average. Estonia has already reached some of the European Union's Education and Training 2020 (ET 2020) benchmarks and is close to achieving other benchmarks. [...] Recent policy measures strengthening links between education and training and the labor market (e.g., involving companies and social partners in VET curricula development, including entrepreneurship skills in university curricula, and providing adults with low skills better access to lifelong learning) have sought to ensure that the provision of education keeps pace with the changing needs of the economy."54

In Germany, the influence of social background on educational performance has declined significantly in recent years. However, it remains significantly greater than in most other countries (rank 28): "Since the first PISA study in 2000, the OECD has often repeated its criticism that access to education in Germany is stratified and educational attainment is dependent on pupils' social backgrounds. Educational opportunities are particularly constrained for children from low-income families and for immigrants. PISA results from 2012, however, had shown significant improvements, reflecting possibly a catalytic effect of the "PISA shock" in the early 2000s. Germany ranked above the OECD average in mathematics, reading and science, and the importance of students' socioeconomic background had lessened."<sup>55</sup>

One strength of the German education system can be found in the country's excellent vocational-training system: "In general, Germany's education system is strong in terms of vocational training, providing skilled workers with good job and income prospects. The rate of post-secondary vocational education and training is about 20%, much higher than the OECD average. The employment rate for vocation graduates aged 25–34 years old is almost as high as for those with

<sup>53</sup> Croissant and Miller (2019), available at www.sgi-network.org.

<sup>54</sup> Toots, Sikk and Jahn (2019), available at www.sgi-network.org.

<sup>55</sup> Rüb, Heinemann and Zohlnhöfer (2019), available at www.sgi-network.org.

# FIGURE 16 Pre-primary Education Expenditure

Unit: Percent of GDP

					ocial Jus					
lank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Sweden	0.59	0.67	0.72	1.29	1.29	1.30	1.29	1.29	0.7
2	Denmark	0.87	0.90	1.61	1.25	1.25	1.25	1.25	1.25	0.38
3	Bulgaria	0.74	0.85	0.88	0.89	1.03	1.05	0.97	0.95	0.21
4	Iceland	1.04	1.13	1.12	0.93	0.90	0.93	0.90	0.85	-0.19
5	Israel	0.62	0.62	0.59	0.55	0.71	0.72	0.80	0.83	0.21
6	Latvia	0.67	0.85	0.82	1.13	0.82	0.86	0.81	0.80	0.13
7	Hungary	1.00	0.96	0.89	0.65	0.65	0.65	0.78	0.77	-0.23
8	Finland	0.34	0.36	0.40	0.78	0.77	0.77	0.77	0.76	0.42
9	Norway	0.50	0.51	0.55	0.73	0.73	0.69	0.72	0.74	0.24
10	Belgium	0.71	0.75	0.78	0.68	0.71	0.70	0.70	0.71	0.00
11	France	0.64	0.64	0.66	0.65	0.70	0.70	0.70	0.69	0.05
12	Croatia	0.57	0.60	0.66	0.66	0.66	0.66	0.66	0.66	0.09
13	Poland	0.53	0.57	0.54	0.56	0.59	0.61	0.61	0.64	0.11
14	Lithuania	0.59	0.52	0.71	0.63	0.63	0.50	0.56	0.63	0.04
15	Chile	0.32	0.43	0.53	0.64	0.64	0.84	0.64	0.61	0.29
16	Luxembourg	0.50	0.51	0.75	0.65	0.53	0.57	0.57	0.57	0.07
17	Canada	0.25	0.25	0.42	0.42	0.42	0.54	0.54	0.54	0.29
18	Malta	1.02	0.37	0.42	0.46	0.44	0.52	0.53	0.53	-0.49
	Mexico	0.52	0.58	0.53	0.53	0.53	0.53	0.53	0.53	0.01
20	Slovenia	0.51	0.49	0.65	0.68	0.61	0.65	0.56	0.52	0.01
21	Austria	0.40	0.46	0.59	0.47	0.47	0.48	0.49	0.50	0.10
22	Czechia	0.51	0.49	0.66	0.54	0.54	0.55	0.52	0.49	-0.02
	Slovakia	0.47	0.53	0.53	0.42	0.44	0.49	0.49	0.49	0.02
24	New Zealand	0.22	0.34	0.51	0.49	0.47	0.44	0.48	0.48	0.26
25	Germany	0.47	0.50	0.56	0.43	0.44	0.44	0.46	0.46	-0.01
	Spain	0.55	0.64	0.68	0.50	0.48	0.48	0.47	0.46	-0.09
27	Italy	0.50	0.49	0.44	0.45	0.45	0.46	0.48	0.45	0.05
28	Korea	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.42	0.39
29	Switzerland	0.31	0.28	0.28	0.18	0.18	0.24	0.41	0.41	0.10
30	Portugal	0.53	0.48	0.47	0.39	0.42	0.42	0.39	0.39	-0.14
31	Estonia	0.35	0.55	0.44	0.43	0.35	0.35	0.35	0.35	0.00
	Netherlands	0.41	0.39	0.41	0.41	0.38	0.37	0.36	0.35	-0.06
33	Cyprus	0.34	0.35	0.41	0.38	0.35	0.35	0.35	0.33	-0.01
34	United States	0.32	0.32	0.32	0.32	0.32	0.33	0.32	0.32	0.00
35	Romania	0.65	0.77	0.67	0.29	0.30	0.34	0.33	0.31	-0.34
36	Greece	0.11	0.11	0.11	0.24	0.25	0.27	0.26	0.27	0.16
37	Turkey	0.02	0.02	0.17	0.17	0.17	0.17	0.17	0.25	0.23
38	Australia	0.02	0.02	0.11	0.12	0.14	0.15	0.17	0.23	0.18
39	United Kingdom	0.05	0.27	0.32	0.12	0.31	0.10	0.26	0.20	-0.09
40	Japan	0.27	0.09	0.32	0.10	0.10	0.20	0.10	0.10	0.01
40	Ireland	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.07

Source: Eurostat, UNESCO, Atkinson Centre, IMF & OECD.

tertiary education. All in all, the German education system excels in offering competencies relevant for labor market success, resulting in a very low level of youth unemployment (rank second among OECD countries)."<sup>56</sup>

In Australia, the country experts criticize the very low level of expenditure on pre-primary education (rank 38). In addition, they note an increasing degree of inequity in the education system overall, produced by state subsidies for private educational institutions: "Regarding equity, the continued high level of government subsidies to non-government schools means inequity in schooling outcomes is high. Unsurprisingly, given the high levels of government subsidy of private education, rates of enrollment in private schools in Australia are significantly higher than the OECD average. Despite subsidies, tuition fees at private school are often beyond the means of less affluent parents, creating inequality. Moreover, inequity has increased, as government funding per student in non-government schools has increased at a faster rate than government funding per student in government schools. The 2017 budget took steps toward reducing inequity, boosting funding to government schools and reducing funding to some non-government schools in the period of 2017 - 2027. However, following a backlash from the Catholic school sector, which accounts for approximately half the non-government school sector, in September 2018 the government announced an increase in funding to Catholic schools of AUD 4.5 billion over 10 years."57

In the eastern European countries of Hungary, Slovakia, Czechia and Bulgaria, education systems are also marked by significant social selectivity. These four countries consequently take the bottom ranks on the "influence of socioeconomic background on educational outcomes" indicator. PISA results offer another indication of the lack of educational quality here. For these countries, the share of PISA low performers in all subjects ranges between 13.7% in Czechia (rank 26) and 29.6% in Bulgaria (rank 39). In Bulgaria, the country experts find an inequitable distribution of opportunities both between ethnic groups and between the country's urban and rural populations.: "The level of equity in the Bulgarian education system is average to low. Many children in upper-income families are able to attend private schools, which show better results in the external evaluations after fourth, seventh and 12th grades. In addition, the school dropout rate among minorities, especially Roma, is significantly higher than the average, meaning that schools do not provide the same opportunities for all ethnic groups. Finally, geographic variance in the quality of the education provided by secondary and tertiary schools is very large, with schools in smaller towns and villages and in less populated areas unable to attract high-quality teaching staff."<sup>58</sup> However, the relatively high level of expenditure on pre-primary education represents a more positive sign. For this indicator, Bulgaria is ranked third in the overall country sample, spending about 1% of GDP.

In Czechia too, members of the Roma ethnic group have relatively little prospect of obtaining a high-quality education: "While educational mobility of children with a non-academic background is limited, educational outcomes and the employability of graduates with a secondary education are good. [...] The early school leaving

56 Rüb, Heinemann and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>57</sup> Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org.

<sup>58</sup> Ganev, Popova and Bönker (2019), available at www.sgi-network.org.

# FIGURE 17 Less Than Upper Secondary Education (25-64)

Unit: Percent

				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Lithuania	9.6	8.1	6.6	6.7	6.5	5.4	5.2	5.2	-4.4
2	Czechia	9.1	8.1	7.2	6.8	6.8	6.6	6.2	6.1	
3	Poland	12.9	11.5	9.9	9.5	9.2	8.7	7.9	7.6	-5.3
4	Slovakia	10.1	9.0	8.1	9.0	8.6	8.1	8.6	8.3	-1.8
5	Canada	13.0	11.7	10.5	10.0	9.6	9.4	8.9	8.4	-4.6
6	United States	11.3	11.0	10.4	10.4	10.5	9.9	9.4	9.2	2.1
7	Latvia	14.1	11.4	10.6	10.5	9.9	9.3	9.6	9.3	-4.8
8	Estonia	11.6	10.7	9.4	11.8	11.3	10.9	11.2	10.8	-0.8
	Finland	18.9	17.0	14.1	13.5	12.3	11.9	11.7	10.8	-8.1
10	Switzerland	13.2	15.0	13.6	12.8	12.7	12.6	12.2	11.6	-1.6
11	Korea	20.9	19.6	16.3	15.0	14.2	13.1	12.4	11.8	-9.0
12	Slovenia	18.0	16.7	14.5	14.3	13.2	12.7	12.1	11.9	-6.1
13	Israel	18.8	17.9	15.0	14.7	14.5	13.2	12.6	12.6	-6.1
14	Germany	14.7	13.9	13.3	13.1	13.2	13.5	13.5	13.4	-1.3
15	Sweden	20.0	18.8	16.8	16.3	15.7	15.0	14.7	14.4	-5.6
16	Austria	19.1	17.6	17.0	16.1	15.4	15.5	15.0	14.7	-4.4
17	Croatia	23.3	22.7	18.7	17.3	16.9	17.3	16.2	14.9	-8.4
18	Hungary	20.4	18.8	17.5	16.9	16.8	16.6	16.0	15.1	
19	Ireland	29.6	26.9	22.9	19.7	18.9	18.6	17.5	16.8	-12.8
20	Norway	20.0	19.1	17.6	17.3	17.3	17.7	17.8	17.0	
21	Bulgaria	22.5	20.9	18.2	18.9	18.1	17.7	17.2	17.4	-5.1
22	Cyprus	26.9	26.0	21.5	22.4	22.1	20.5	18.9	17.8	-9.1
23	Australia	30.1	26.8	24.3	22.9	21.0	20.1	19.0	18.1	-12.0
24	Denmark	26.2	24.4	21.7	20.4	19.6	19.3	18.7	18.4	-7.8
25	New Zealand	25.9	25.9	25.9	25.9	25.3	23.4	21.1	19.5	-6.4
26	United Kingdom	26.6	23.9	21.7	20.8	20.3	20.5	19.9	19.6	-7.0
27	Japan	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	0.0
28	France	30.5	29.3	25.0	23.3	22.5	21.9	21.6	20.6	-9.9
29	Netherlands	28.6	27.6	24.2	24.1	23.6	22.9	21.6	21.0	-7.6
30	Luxembourg	32.1	22.3	19.5	18.0	24.0	21.6	23.6	21.4	
31	Romania	24.7	26.1	24.3	27.2	25.0	23.3	22.1	21.5	
32	Belgium	30.4	29.5	27.2	26.4	25.3	24.9	23.2	21.8	-8.6
33	Iceland	35.9	33.5	27.8	26.4	25.0	21.8	22.7	22.0	-13.9
34	Greece	38.7	37.3	32.8	31.6	29.6	28.2	27.1	26.4	-12.3
35	Chile	43.5	43.5	38.6	38.6	35.1	35.1	32.6	32.6	-10.9
36	Italy	46.7	44.9	41.8	40.7	40.1	39.9	39.1	38.3	-8.4
37	Spain	48.9	47.1	44.5	43.4	42.6	41.7	40.9	39.9	-9.0
38	Malta	72.2	67.0	58.8	55.9	54.0	51.6	48.9	46.7	
39	Portugal	71.9	68.3	60.2	56.7	54.9	53.1	52.0	50.2	
40	Mexico	70.1	67.9	65.2	64.9	64.3	63.4	62.3	60.9	-9.
41	Turkey	72.6	71.6	68.1	67.4	65.8	64.4	63.6	62.6	

Bertelsmann Stiftung

Source: Eurostat, OECD & UNESCO.

rate remains among the lowest in the EU, but regional disparities are significant and the rate has been increasing steadily since 2010. It currently exceeds the 5.5% national target for 2020. A particularly vulnerable group are Roma. Around 25% of Roma children are educated in "special schools" (populated almost exclusively by Roma), before being placed in practical schools with lower learning standards."<sup>59</sup>

In Slovakia, Czechia's neighboring nation, the government has tried to improve educational opportunities for Roma children by means of anti-segregation legislation. However, the country experts report that this effort has met with little success to date: "There are huge regional disparities in teaching outcomes, and students from socially disadvantaged groups tend to achieve only half the points of their peers from socially more favourable environments. [...] The implementation of the anti-segregation legislation adopted mid-2015 in order to improve education for Roma children has been hindered by low teacher participation and a lack of teachers able to teach in multicultural settings."<sup>60</sup>

The country experts in Czechia, Slovakia and Romania see teaching's lack of appeal as a profession as one contributor to the comparatively low education quality. They note that low teacher salaries in these countries make it difficult to recruit and retain qualified teaching personnel. In Czechia, the government has thus increased teachers' salaries: "The new Babis government has continued the policies of the Sobotka government and has increased teachers' wages. However, the low salaries of Czech teachers and school heads remain an issue and have fostered the feminization and aging workforce of the education sector. Low salaries in tertiary education have made it difficult to recruit and retain high-quality staff."<sup>61</sup>

The Romanian government too has sought to counteract the drain of qualified teachers from the sector by offering higher salaries: "The Dancila government's approach to education policy has been two-pronged, largely focusing on investments in infrastructure and increases in teachers' wages. In 2018, the government reported that it had completed investments in 145 schools and 45 child care and daycare facilities. Furthermore, teachers' incomes experienced an increase by nearly 40% increase. Both changes might help to limit the drain of qualified teachers, a key obstacle to improving education in Romania. However, their effects are limited by the failure of the government to launch a more comprehensive reform of the education system and to address structural issues such as the outdated curriculum and the disparate access in rural and urban areas."<sup>62</sup>

In Poland, while the link between social background and educational outcomes is stronger than in most other countries (rank 27), this relationship is significantly weaker than in the other above-cited eastern European countries. However, the country experts fear that inequality in educational outcomes will increase in the future, and criticize the education policies implemented in recent years. The country experts awarded Poland seven points for its education policies in the SJI 2016, but this has fallen to just four points in the SJI 2019. Only Hungary

- 59 Guasti, Mansfeldová, Myant and Bönker (2019), available at www.sgi-network.org.
- 60 Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.
- 61 Guasti, Mansfeldová, Myant and Bönker (2019), available at www.sgi-network.org.
- 62 Wagner, Stan and Bönker (2019), available at www.sgi-network.org.

and Turkey perform more poorly in this area. In explaining their assessment, the experts cite reforms implemented by the Law and Justice (PiS) government over the course of recent years: "As one of its first measures, PiS had reversed the controversial obligatory lowering of the school age and made it possible for parents to send their children to school at the age of seven, as was the case until 2014. On 4 September 2017, with the start of the new school year, another new law on education entered into force, despite massive protests against it by the teachers' union ZNP (Związek Nauczycielstwa Polskiego), which collected more than 900,000 signatures for a referendum against the reform. Under the terms of the new law, the lower secondary or middle schools (gimnazjum) introduced in 1999, will be closed by 2019, and the previous two-tier school system (eightyear primary school followed by upper secondary school for another four years or vocational education) will be reinstated. The reform has been badly prepared, and the costs of this lack of preparation will be borne by local administrations at the lowest (gmina) level, and teachers, parents and students. Most experts fear that the reduction in the duration of universal general education will increase inequality in educational outcomes. Criticism has also been levelled against government attempts to change the curricula with a view to rewriting Polish history, removing many liberal and cosmopolitan texts and values from the core of teaching programs, and returning to old-fashioned teaching methods."63

A look at the education systems in the southern European states of Italy, Spain, Portugal and Greece reveals a number of similarities. All four countries fall into the lower-middle ranks of the SJI 2019 education ranking, and their education systems all show a more or less middling degree of social selectivity in comparison to the other nations surveyed. Moreover, the low level of expenditure on pre-primary education is striking in each. While Sweden, the top-ranked country for this indicator, invests around 1.3% of GDP in this educational segment, Italy (around 0.5%), Spain (around 0.5%), Portugal (around 0.4%) and Greece (around 0.3%) all expend significantly less for preschool education. In addition, the level of educational attainment is relatively low in all four countries. While the share of 25- to 64-year-olds lacking an upper-secondary-level educational degree has declined significantly over the past decade in all four countries, it remains at a high level, with percentages ranging between 26.4% in Greece (rank 34) and 50.2% in Portugal (rank 39). For the purposes of comparison, just 5.2% of Lithuania's population within this age cohort has failed to complete at least an upper-secondary-level education. In Greece, the share of PISA low performers in all subjects has also risen over time (20.7%; rank 34).

In Portugal, the country experts see a number of factors leading to the education system's comparatively poor performance: "First, there is significant variation in the quality of education between schools. The average score in the 2017 national exams ranged from 12.87 (out of 20) for the highest rated public school to 7.08 in the lowest rated public school. The variance is even greater when we consider all schools, thus encompassing private schools also, with the best performing school presenting an average of 15.04 – more than twice the average for the lowest rated school. Indeed, anecdotal evidence suggests that the quality of education is often unequal within schools. Second, these differences reflect policy failures, includ-

<sup>63</sup> Matthes, Markowski and Bönker (2019), available at www.sgi-network.org.

#### Unit: Percent Social Justice Index Rank Country 2015 2016 2019 change to 2009 2009 2011 2014 2017 2018 1 Estonia 4.7 1.5 32 32 3.2 3.2 3.2 4.7 4.7 2 Japan 55 55 55 55 5.5 5.6 5.6 5.6 0.1 -0.2 3 Canada 6.2 6.2 6.2 6.2 6.2 5.9 5.9 5.9 0.9 4 Finland 5.3 5.3 5.3 5.3 5.3 6.3 6.3 6.3 0.0 5 Ireland 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6 Denmark 9.3 9.3 9.3 9.3 9.3 7.5 7.5 7.5 -1.9 7 Korea 4.4 4.4 4.4 4.4 4.4 7.7 7.7 7.7 3.3 -1.7 8 Slovenia 9.9 9.9 9.9 9.9 9.9 8.2 8.2 8.2 2.6 9 Poland 5.7 5.7 5.7 5.7 5.7 8.3 8.3 8.3 10 Norway 11.0 11.0 11.0 11.0 11.0 8.9 8.9 8.9 -2.1 1.1 11 Germany 8.8 8.8 8.8 88 88 98 98 9.8 12 United Kingdom 11.2 11.2 11.2 11.2 10.1 10.1 10.1 -1.1 11.2 Switzerland 10.1 10.1 10.1 2.6 13 7.5 7.5 7.5 7.5 7.5 0.0 14 Spain 10.4 10.4 10.4 10.4 10.4 10.3 10.3 10.3 2.2 15 Latvia 10.5 10.5 10.5 8.3 8.3 8.3 8.3 8.3 16 New Zealand 11.1 11.1 11.1 11.1 11.1 10.6 10.6 10.6 - -0.6 -1.8 Portugal 12.6 12.6 12.6 12.6 12.6 10.7 10.7 10.7 17 Netherlands 8.6 8.6 8.6 8.6 8.6 10.9 10.9 10.9 2.3 18 19 Australia 9.1 9.1 9.1 9.1 9.1 11.1 11.1 11.1 2.0 20 Sweden 15.0 15.0 15.0 15.0 15.0 11.4 11.4 11.4 -3.6 0.4 11.9 12.2 21 Italy 11.9 11.9 11.9 11.9 12.2 12.2 22 11.5 11.5 11.5 12.7 12.7 12.7 1.1 Belgium 11.5 11.5 23 Iceland 13.6 13.6 13.6 13.6 13.6 13.2 13.2 13.2 -0.4 2.8 24 Austria 10.7 10.7 10.7 10.7 10.7 13.5 13.5 13.5 1.3 25 United States 122 122 122 122 122 136 136 13.6 4.7 26 Czechia 8.9 8.9 8.9 8.9 8.9 13.7 13.7 13.7 2.8 27 Croatia 11.7 11.7 11.7 11.7 11.7 14.5 14.5 14.5 12.7 12.7 12.7 14.8 2.1 28 France 12.7 12.7 14.8 14.8 3.3 29 Lithuania 12.1 12.1 12.1 12.1 12.1 15.3 15.3 15.3 30 Luxembourg 14.4 14.4 14.4 14.4 14.4 17.0 17.0 17.0 2.6 185 185 18.5 54 31 Hungary 131 131 131 131 131 32 Slovakia 18.8 18.8 18.8 18.8 18.8 20.1 20.1 20.1 1.3 33 18.5 18.5 18.5 18.5 18.5 20.2 20.2 20.2 1.7 Israel 15.7 15.7 15.7 15.7 15.7 20.7 20.7 20.7 4.9 34 Greece Malta 21.9 21.9 21.9 0.0 35 21.9 21.9 21.9 21.9 21.9 Chile 24.6 24.6 24.6 24.6 24.6 23.3 23.3 23.3 -1.3 36 24.3 0.3 37 Romania 24.0 24.0 24.0 24.0 24.0 24.3 24.3 0.0 38 Cyprus 26.1 26.1 26.1 26.1 26.1 26.1 26.1 26.1 1.0 39 Bulgaria 28.6 28.6 28.6 28.6 28.6 29.6 29.6 29.6 15.6 40 Turkey 15.6 15.6 15.6 15.6 15.6 31.2 31.2 31.2 41 Mexico 31.0 31.0 31.0 31.0 31.0 33.8 33.8 33.8 2.8 0 5 10 15 20 25 30 35

#### FIGURE 18 PISA Low Performers, All Subjects

Source: OECD PISA.

ing the lack of effective accountability mechanisms and incentives, weak lifelong training, and inefficient management systems. Third, considerable instability in the sector – with substantial changes from year to year – means that the educational system is unpredictable and the impact of changes is limited."<sup>64</sup>

With regard to Greece, the country experts also criticize the lack of continuity in education policy, along with inequities in access to higher education: "Access to tertiary education is, however, not equitable, as students from middle- and upper-class backgrounds are more likely to successfully pass entrance examinations. Moreover, to the extent their parents can afford it, Greek high school students receive extensive private tutoring before nationwide university entrance examinations. This reflects a cultural contradiction. While tertiary education is an entirely public-sector activity (i.e., university students pay neither tuition fees nor textbook costs and private universities are officially banned), success in entering universities depends on private tutoring. [...] In 2016 and 2017, the Syriza-ANEL government shifted more resources to education (for hiring new University lecturers), but other reforms have stalled or even reversed – especially in tertiary education. [...] In summary, Greece's education system is one of the most centralized among OECD countries, with education policy suffering from politicization and lack of policy continuity. The economic crisis and government policy have further exacerbated the mismatch between the allocation of resources and actual needs. Thus, the divergence between employment and education trends has worsened (for more, see Labor Market Policy). "

It is striking that France (rank 35) and Austria (rank 36), two relatively wealthy countries, are among the low performers in the equitable education dimension. The poor result for France is particularly due to the high degree of social selectivity in the country's education system. In no other country is the influence of social background on the educational outcomes of children and youth greater. In addition, the quality of education leaves much to be desired; 14.8% of students (rank 28) fall into the category of PISA low performers in all subjects, a share about three times as high as that in Estonia. According to the country experts, "An alarming result of the PISA assessment is that, more than in any other OECD country, individual success depends on the socioeconomic background of students. Secondary education is rather good but uneven, excessively costly and, in recent years, has fallen behind other OECD countries. Higher education is dual, with a broad range of excellent elite institutions (prestigious lycées and grandes écoles) and a large mass university system, which is poorly funded and poorly managed, and does not prepare its students well for a successful entry to the labor market."<sup>65</sup> However, the experts also report that the Macron government has addressed the issue and introduced several measures designed to ensure improved and more fair access to education: "Many significant measures have been taken and immediately implemented. First, these measures placed greater emphasis on training young people from less affluent backgrounds. In areas with significant social problems, the government has decided to immediately cut in half the number of students per elementary school class, bringing down the maximum number of students to 12 per class. Second, most of the disputed reforms put in place by the Hollande-Valls

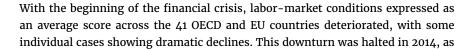
<sup>64</sup> Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

<sup>65</sup> Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

government are being dismantled (for instance the 'bi-langues'classes have been reintroduced in secondary schools and more emphasis is put on the fundamentals). Third, international evaluations and rankings (such as the PISA report) have been taken into account and will likely form the basis for further changes. Finally, an immediate action program has been launched, mobilizing  $\in$ 15 billion for job training measures (targeting the long-term unemployed and young people leaving school without diploma), and a far-reaching renewal of the professional training system was passed in 2018.<sup>w66</sup>

The Austrian education system too is flawed with respect to the equitable distribution of opportunity. For example, the influence of social background on educational outcomes is strong. Indeed, only seven countries score more poorly on this indicator. In addition, educational opportunities for women and men are distributed extremely unequally. The percentage of women who have not completed at least an upper-secondary-level education is around 60% greater than the corresponding share within the male population. According to the country experts, "The Austrian educational system still does not perform to its potential. Considering Austria's economic position, the country should have a significantly higher number of university graduates. The reason for this underperformance is seen by research institutions and experts such as the OECD to lie with the early division of children into multiple educational tracks, which takes place after the fourth grade. Despite the fact that there has been some improvement and partly as a result of the increasing role of the "Fachhochulen" (universities of applied science, polytechnics), the Austrian educational system still is highly socially selective. Parents' social (and educational) status is reflected in students' ability to access higher education, more so than in comparable countries. This state of affairs violates the concept of social justice and time fails to exploit the population's talents to the fullest. [...] Access to the Austrian university system is still highly unequal, with children of parents holding tertiary education degrees and/ or having higher incomes enjoying better odds of graduating from university. The introduction of access restrictions for specific careers such as medicine in 2005 has increased the odds of children from high-education backgrounds gaining access to these careers."67 The experts also see shortcomings with regard to the integration of migrants within the Austrian education system: "A particular challenge is the significant number of children of first-generation immigrants who don't have German as their mother tongue. The Austrian educational system has not fully succeeded in guaranteeing that immigrant children after nine years of schooling are able to read and write German fluently. As for reading and writing, deficits are not only a problem in immigrant communities, it is obvious that the system's underperformance is not only the result of migration."68

## 3. Labor market access

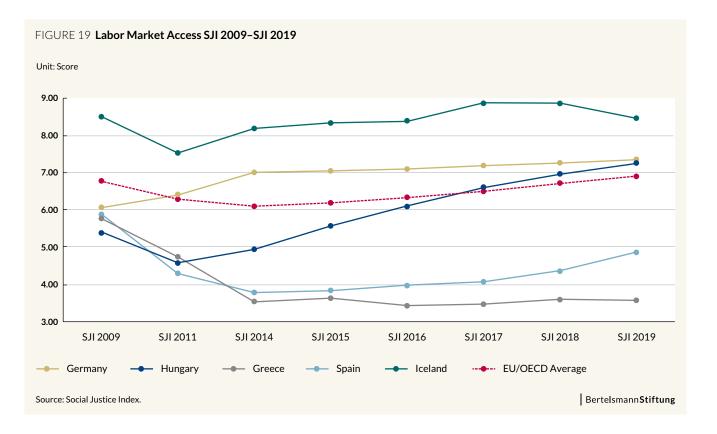


66 Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>67</sup> Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org.

<sup>68</sup> Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org.

the global economic recovery took hold. Since then, a clear upward trend has been evident. Today's average score of 6.91 points has climbed above the pre-crisis level of 6.77 for the first time. However, this average-based perspective masks quite varied developments in the individual countries. For a total of 19 of the 30 countries included in the SJI 2009, the SJI 2019 reveals improvements in labor-market participation opportunities as compared to the situation a decade ago. This is particularly true for the eastern European countries of Poland, Hungary and Czechia, which - like Germany - have been able to increase their score by more than a point in comparison to the SJI 2009. By contrast, Italy, Spain and Greece, all countries hit particularly hard by the crisis, remain below their pre-crisis levels. Greece is the lowest-ranking country in the sample group, by some distance. However, labor-market access has also deteriorated significantly in France, Sweden, Finland and Norway as compared with the SJI 2009. Developments over the past five years show a more encouraging picture. For example, labor-market participation opportunities have improved in 38 out of the 41 countries. Only Norway, Finland and Turkey show slightly lower scores than in the SJI 2014.



The average unemployment rate across the 41 EU and OECD countries was 5.67% in the SJI 2009, at the beginning of the crisis. This had risen to 8.37% by the SJI 2011. Since that time, unemployment rates have fallen steadily. The average rate today is 5.33%, the first time it has fallen beneath its pre-crisis level. However, significant differences between the individual countries are also evident here. About half of the countries today have a lower unemployment rate than was the case 10 years ago. In the other half, these rates remain higher than those reported in the SJI 2009. Unemployment rates have fallen most dramatically in Germany

and Hungary. Both countries have seen their rates fall by more than four percentage points in the last decade, in each case to less than 4% overall. The greatest increase, along with the highest level of unemployment overall, can be found in Greece. Here, the unemployment rate is currently 19.5%, whereas just 7.9% of Greeks were out of work before the beginning of the crisis.

The average employment rate across the sample group today has also exceeded its pre-crisis level. After a decline in most countries - in some cases by quite a significant amount - a clear increase has been evident since the SJI 2014. Indeed, the rate has risen in 40 of the 41 countries surveyed over the last five years, with Norway marking the only exception. However, employment rates in eight countries remain lower than their 2009 levels. The strongest such decrease has been seen in Greece, where today's rate remains 6.5 percentage points lower than its 2009 mark. The largest increases in employment rates over the past decade were in Hungary (+12.8 percentage points) and Malta (+15.9 percentage points), although both started this period at levels quite low in comparison to their peers. Romania, Poland, Slovakia, Lithuania, Czechia, Japan, Germany and Turkey all saw their employment rates increase by more than five percentage points over this period. All countries with the exception of Iceland and Greece have been able to integrate more older people (between 55 and 64 years of age) into the labor market since the beginning of the crisis. This has been particularly true in Germany, Lithuania, the Netherlands, Czechia, Poland, Slovakia, Malta, Austria, Belgium and Italy, in each of which the employment rate among older people has risen by more than 15 percentage points. The strongest gains have been in Hungary, where the rate has risen from 30.9% in 2009 to 54.4% today. However, despite this positive trend, the gap between countries remains enormous. For example, the employment rate among 55- to 64-year olds varies between 80.7% in Iceland and 35.3% in Turkey.

Employment opportunities for women have also seen positive developments. With the exception of Romania, the ratio between employment rates for women and men has slightly improved over the last decade in all EU and OECD countries. However, this encouraging tend is marred by the fact that the principle of equal pay remains far from being realized in most countries. Many country experts cite significant pay gaps between women and men.<sup>69</sup>

For youth too, the labor-market environment has seen significant improvements. While the unemployment rate among young people rose between 2009 and 2014 – quite dramatically in some locations – conditions in most countries have noticeably eased. For example, youth-unemployment rates have declined in 37 countries since the SJI 2014 and have even fallen below their pre-crisis levels in 23 countries. However, labor-market conditions for young people remain a very serious concern particularly in Italy (youth-unemployment rate of 32.2%), Spain (34.3%) and Greece (39.9%). In Cyprus, Turkey, Portugal, France and Croatia too, more than 20% of young people are out of work.

<sup>69</sup> In choosing the indicators to be included in the SJI, data availability and data quality proved to be a limiting factor. Some indicators which would have been desirable in the SJI had to be left out either because of too many missing values or because of problems with data comparability between different sources. Amongst others, the gender pay gap is such an indicator.

#### FIGURE 20 Labor Market Access

Unit: Score

				So	cial Jus	tice Ind	ex			
ank (	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1 1	celand	8.51	7.53	8.19	8.34	8.38	8.88	8.87	8.46	-0.05
2 J	Japan	7.47	7.27	7.59	7.73	7.83	7.92	8.06	8.21	0.75
3 N	New Zealand	7.88	7.50	7.67	7.76	7.87	7.92	8.05	8.20	0.32
4 C	Czechia	6.78	6.24	6.31	6.52	6.78	6.98	7.64	7.85	1.08
5ι	United Kingdom	7.26	6.88	6.77	7.12	7.35	7.57	7.70	7.82	0.56
6 L	United States	7.53	6.65	6.96	7.20	7.39	7.51	7.59	7.76	0.24
7 S	Switzerland	7.62	7.38	7.40	7.46	7.49	7.46	7.59	7.65	0.03
8 A	Australia	7.57	7.47	7.38	7.35	7.37	7.43	7.45	7.57	-0.00
9 l	srael			6.98	7.05	7.18	7.22	7.41	7.57	
10 0	Canada	7.36	6.98	7.21	7.21	7.28	7.32	7.50	7.56	0.20
11 E	Estonia			6.72	6.95	7.22	7.21	7.58	7.49	
12 C	Denmark	7.59	7.00	7.02	7.07	7.06	7.34	7.35	7.44	-0.15
13 N	Norway	8.00	7.45	7.55	7.53	7.22	7.41	7.34	7.39	-0.62
14 S	Slovenia			5.90	6.01	6.27	6.43	7.03	7.38	
15 C	Germany	6.06	6.40	7.01	7.05	7.10	7.19	7.26	7.35	1.30
16 N	Netherlands	6.98	6.97	6.58	6.55	6.61	6.80	7.03	7.30	0.32
17 F	Hungary	5.41	4.58	4.94	5.57	6.11	6.60	6.96	7.25	1.84
	Malta			5.81	6.24	6.55	6.78	6.90	7.24	
19 k	Korea	6.90	6.78	7.09	7.02	7.06	7.08	7.16	7.18	0.27
20 L	Lithuania			5.45	5.80	6.30	6.54	6.87	7.15	
21 I	Ireland	7.03	5.32	5.11	5.54	5.97	6.38	6.79	7.06	0.03
22 F	Poland	5.52	5.42	5.49	5.68	6.02	6.32	6.55	7.00	1.49
23 L	Luxembourg	6.47	6.70	6.43	6.48	6.54	6.52	6.82	6.99	0.52
	Mexico	6.61	6.34	6.64	6.76	6.79	6.95	6.92	6.96	0.35
	Austria	6.85	6.92	6.89	6.82	6.74	6.63	6.69	6.93	0.08
E	EU/OECD Average	6.77	6.29	6.10	6.19	6.33	6.50	6.71	6.91	
	Finland	7.11	6.56	6.88	6.62	6.48	6.41	6.56	6.79	-0.31
	Latvia			5.49	5.81	6.02	6.19	6.39	6.78	
	Portugal	6.31	5.67	4.69	4.99	5.42	5.71	6.22	6.71	0.41
	Belgium	5.95	5.68	5.75	5.73	5.86	5.98	6.33	6.63	0.68
	Sweden	7.06	6.51	6.45	6.46	6.43	6.48	6.55	6.62	
	Bulgaria	/.00	0.01	4.64	4.87	5.15	5.76	6.20	6.45	
	Cyprus			4.62	4.29	4.73	5.30	5.73	6.44	
	Romania			5.84	5.65	5.62	5.72	6.08	6.42	
	Croatia			4.23	4.39	4.63	5.20	5.52	6.09	
35 0			5.73	5.95	5.93	6.13	6.08	6.07	6.09	
	Slovakia	5.35	4.65	4.36	4.57	5.03	5.51	5.85	6.08	0.72
	Turkey	6.05	5.94	6.35	6.17	5.99	5.89	5.98	6.05	-0.00
	France	6.42	6.07	5.78	5.70	5.51	5.50	5.70	5.96	
39 l		5.77	5.31	4.50	4.41	4.66	4.82	4.98	5.10	
										-1.02
41 C	Greece	5.77	4./4	3.53	3.63	3.43	3.47	3.60	3.57	
	Spain Greece	5.89 5.77	4.29 4.74	3.78 3.53	3.83 3.63	3.98 3.43	4.07 3.47	4.37 3.60	4.87 3.57	

Source: Social Justice Index.

However, the overall positive labor-market trend has in many countries been associated with a growing dualization of labor markets. For example, a majority of the country experts report that inequality with regard to incomes and job quality has increased. One driver of this phenomenon is the increasing flexibility within labor markets evident in nearly all countries. On the one hand, this has made a significant contribution to the increase in employment rates. However, it has also led to a rise in atypical, non-regular employment contracts such as part-time or fixed-term employment. For example, the volume of involuntary part-time work as a share of all part-time work has risen in 23 of the 41 countries surveyed since the SJI 2009, in some cases quite significantly. This has been particularly true within the counties hit hardest by the crisis, including Spain, Italy, Cyprus and Greece. Nearly all countries are simultaneously experiencing an increasing shortage of skilled workers.

Rapid technical progress is another factor driving this rising labor-market polarization. This offers rich opportunities for highly qualified people and also in part for low-skilled workers, but represents a significant challenge especially for medium-skilled workers: "Employment in the manufacturing sector has declined by 20% over the past two decades, while employment in services grew by 27%. This has contributed to labour market polarisation: the shares of low-skilled and (particularly) high-skilled jobs have increased, while there has been a hollowing out of middleskilled jobs. This trend has also been driven by skill-biased technological change, a process in which technological change mainly benefits workers with higher skills."<sup>70</sup>

In the SJI 2019, top performers in the labor-market access dimension include Iceland, Japan, New Zealand, Czechia and the United Kingdom. Iceland, with an employment rate of 85.1%, has the highest such rate within the general population; its employment rate among older people is also the highest, at 80.7%. The country also numbers among the top three performers for the unemployment, long-term unemployment and youth-unemployment indicators. By contrast, it is less of a leader with regard to integrating its foreign-born population into the labor market. For example, the unemployment rate among foreign-born residents is about twice as high as that among native-born residents.

In Czechia too, the labor market has developed positively in recent years. The unemployment rate is currently 2.3%, the lowest such rate among the 41 countries surveyed here. In addition, the employment rate has risen from 66.6% in the SJI 2009 to its present level of 74.8% (rank 9 in cross-national comparison). However, the growing skilled-worker shortage is a problematic sign, as is the still-quite-high unemployment rate of 9.4% among low-skilled workers. According to the country experts, "The labor market situation in the Czech Republic has improved considerably since 2014, but broadly stabilized after 2017 and has seen little change in 2018. The unemployment rate was the lowest in the EU in 2018 and the lowest in the Czech Republic since 1998. However, the government has done little to address the substantial differences in unemployment with regard to regions and qualifications and the growing labor shortages reported across the economy. In 2018, the number of vacancies reached almost three times the

number of active job seekers. The shortage of skilled labor is a major constraint on the manufacturing industry, discouraging inward investors from moving more demanding activities into the Czech Republic. Complex regulations complicate the employment of foreigners from outside the EU, the European Economic Area and Switzerland."<sup>71</sup>

Japan, which holds second place in the labor-market ranking, shows the SJI 2019's second-lowest unemployment rate, at 2.6%, and the lowest youth-unemployment rate, at 3.8%. The employment rate among older people is also high, at 75.2% (rank 4). However, the country experts in Japan, as in many other countries, note an increase in non-regular employment that has particularly affected young people: "The Japanese labor market has witnessed a significant deterioration in the quality of jobs. Retiring well-paid baby boomers have more often than not been replaced by part-timers, contractors and other lower-wage workers. The incidence of non-regular employment has substantially risen to about 40%. A major concern is that young people have difficulty finding permanent employment positions, and are not covered by employment insurance. Moreover, because of the non-permanent nature of such jobs, they lack appropriate training to advance into higher-quality jobs. Most economists argue that the conditions for paying and dismissing regular employees have to be liberalized to diminish the gap between both types of employment."<sup>72</sup>

The development of the labor market in Germany deserves special note. The Federal Republic is the only country in which the score for this dimension has improved steadily since 2009 despite the economic crisis. Currently, the country has the fifth-lowest unemployment rate among the countries surveyed in the SJI 2019, at 3.5%, and the seventh-highest employment rate, at 75.9%. Also noteworthy has been the rise in the employment rate among older people from 53.7% in the SJI 2009 to its level of 71.4% today (rank 7). The youth-unemployment rate has also been reduced and has currently reached the very low level of 6.2% (rank 3). Similarly, the long-term unemployment rate has been more than halved since the SJI 2009, from 4.0% to 1.5%. However, this remains relatively high in cross-national comparison (rank 23). The country experts explain the reduction in the long-term unemployment rate as follows: "Germany has a comprehensive toolbox of active labor market programs, which includes financial support for vocational training programs, support for self-employed individuals, provision of workfare programs and the subsidized employment of long-term unemployed individuals. Traditional instruments, such as job creation and training programs, are now seen as combinable. Tailored to individual needs, these instruments are designed to facilitate the reintegration of long-term unemployed individuals into the labor market."73

- 72 Pascha, Köllner and Croissant (2019), available at www.sgi-network.org.
- 73 Rüb, Heinemann and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>71</sup> Guasti, Mansfeldová, Myant and Bönker (2019), available at www.sgi-network.org.

### FIGURE 21 Employment Rate

Unit: Percent

				2	ocial Jus	tice inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	83.6	78.2	81.1	82.9	84.7	86.6	86.1	85.1	1.5
2	Switzerland	79.5	77.3	78.4	78.8	79.2	79.6	79.8	80.1	0.6
3	Sweden	74.3	72.1	74.4	74.9	75.5	76.2	76.9	77.5	3.2
4	New Zealand	74.6	72.2	72.9	74.2	74.3	75.6	76.9	77.5	2.9
5	Netherlands	74.9	73.9	73.6	73.1	74.1	74.8	75.8	77.2	2.3
6	Japan	70.7	70.1	71.7	72.7	73.3	74.3	75.3	76.8	6.1
7	Germany	70.1	71.3	73.5	73.8	74.0	74.7	75.2	75.9	5.8
8	Denmark	77.9	73.3	72.5	72.8	73.5	74.9	74.2	75.4	-2.5
9	Czechia	66.6	65.0	67.7	69.0	70.2	72.0	73.6	74.8	8.2
	Estonia	70.1	61.2	68.5	69.6	71.9	72.1	74.1	74.8	4.7
	Norway	78.0	75.3	75.4	75.2	74.8	74.3	74.0	74.8	
12	United Kingdom	71.5	69.4	70.5	71.9	72.7	73.5	74.1	74.7	3.2
13	Canada	73.5	71.5	72.4	72.3	72.5	72.6	73.4	73.8	0.3
14	Australia	73.2	72.4	72.0	71.6	72.2	72.4	73.0	73.8	0.6
15	Austria	70.8	70.8	71.4	71.1	71.1	71.5	72.2	73.0	2.2
16	Lithuania	64.4	57.6	63.7	65.7	67.2	69.4	70.4	72.4	8.0
17	Finland	71.1	68.1	68.9	68.7	68.5	69.1	70.0	72.1	1.0
18	Latvia	68.2	58.5	65.0	66.3	68.1	68.7	70.1	71.8	3.6
19	Malta	55.5	56.2	62.2	63.9	65.1	67.2	69.2	71.4	15.9
20	Slovenia	68.6	66.2	63.3	63.9	65.2	65.8	69.3	71.1	2.5
21	United States	70.9	66.7	67.4	68.2	68.7	69.4	70.1	70.7	-0.2
22	Portugal	68.0	65.3	60.6	62.6	63.9	65.2	67.8	69.7	1.7
23	Hungary	56.4	54.9	58.1	61.8	63.9	66.5	68.2	69.2	12.8
24	Israel	65.5	65.2	67.1	67.9	68.3	68.6	69.0	69.0	3.5
25	Cyprus	70.9	68.9	61.7	62.1	62.7	63.7	65.6	68.6	-2.3
	Ireland	69.7	61.0	61.7	63.1	64.8	66.4	67.7	68.6	-1.1
27	Bulgaria	64.0	59.8	59.5	61.0	62.9	63.4	66.9	67.7	3.7
28	Slovakia	62.3	58.8	59.9	61.0	62.7	64.9	66.2	67.6	5.3
29	Poland	59.2	58.9	60.0	61.7	62.9	64.5	66.1	67.4	8.2
30	Luxembourg	63.4	65.2	65.7	66.6	66.1	65.6	66.3	67.1	3.7
31	Korea	64.0	63.4	64.6	65.6	65.9	66.1	66.6	66.6	2.7
32	France	64.9	64.0	64.0	63.7	63.8	64.2	64.7	65.4	0.5
33	Romania	59.0	60.2	60.1	61.0	61.4	61.6	63.9	64.8	5.8
34	Belgium	62.4	62.0	61.8	61.9	61.8	62.3	63.1	64.5	2.1
35	Chile	58.6	59.3	62.3	62.2	62.4	62.2	62.7	62.6	4.0
36	Spain	64.5	58.8	54.8	56.0	57.8	59.5	61.1	62.4	-2.1
37	Mexico	60.7	59.7	60.8	60.4	60.8	61.1	61.1	61.5	0.9
38	Croatia	60.0	57.4	52.5	54.6	56.0	56.9	58.9	60.6	0.6
39	Italy	58.6	56.8	55.5	55.7	56.3	57.2	58.0	58.5	-0.1
40	Greece	61.4	59.1	48.8	49.4	50.8	52.0	53.5	54.9	-6.5
41	Turkey	44.9	46.3	49.5	49.5	50.2	50.6	51.5	52.0	7.1

Source: Eurostat & OECD.

One challenge in Germany is to integrate more refugees into the labour market. The unemployment rate among foreign-born residents is more than twice as high as that within the native-born population. This ratio is worse in only six of the countries surveyed: "The enormous increase in refugees claiming asylum in Germany was and still is a key challenge for future labor market policymaking. Reducing barriers to labor market access, especially to the regular labor market, as well as support for training and education will be crucial for the successful integration of refugees."<sup>74</sup> Another critical aspect is that many jobs in Germany are in the low-wage sector.

As in Germany, the US American labor market presents a two-tiered aspect. The 3.9% unemployment rate reflected in the SJI 2019 is significantly lower than the rate of 10 years ago (5.9%) and is also lower than the EU/OECD average (5.3%). The youth-unemployment rate, at 8.6%, is also comparatively low, and the long-term unemployment rate is 0.5%. On the other hand, the United States has the second-largest share of low-income earners among the 41 countries surveyed. Nearly one-quarter of employed people (24.5%) earn less than two-thirds of the median income.

Hungary has demonstrated the greatest improvement in the area of labor-market access in comparison to the SJI 2009, although its level of performance at the beginning of this baseline period was initially quite low. The country's employment rate has risen from 56.4% to 69.2% over the last decade, while its unemployment rate has fallen from 7.9% to 3.7% (rank 6). The youth-unemployment rate too has been roughly halved to its current level of 10.2% (rank 15). The country experts nevertheless express some criticism of this development, as it has been primarily based on an expansion of public, often precarious employment: "However, low unemployment has largely been achieved by controversial public-works programs and an increase in the number of Hungarians working abroad. The public-works programs have [...] seldom resulted in the integration into the first labor market. Participants perform unskilled work under precarious conditions and for very modest remuneration."75 In addition, the emigration of many well-qualified Hungarians overseas continues to represent a major challenge. This brain drain has led to an increasing shortage of skilled workers: "The number of Hungarians working abroad is estimated at 600,000, many of them highly educated and skilled. The resulting brain drain has become a major obstacle to the acquisition of FDI and to economic development in general. The salary boom in the first labor market during the last years has been driven by the lack of qualified labor, arguably the main current challenge to labor market policy, and the resulting increase in competition among companies to find a qualified workforce. Approximately 80.000 open jobs are waiting for employees. The government's "coming home" programs have so far failed to turn the tables."76

Poland has shown the second-greatest improvement in labor-market performance in comparison to the SJI 2009, trailing only Hungary. The country's positive economic development has been the most significant factor driving this trend: "Poland's favorable overall economic record has been associated with a marked

<sup>74</sup> Rüb, Heinemann and Zohlnhöfer (2019), available at www.sgi-network.org.

<sup>75</sup> Ágh, Dieringer and Bönker (2019), available at www.sgi-network.org.

<sup>76</sup> Ágh, Dieringer and Bönker (2019), available at www.sgi-network.org.

decline in unemployment. The unemployment rate has fallen further and reached 3.9% in 2018, a historic low since 2008 and one of lowest such rates in the EU. The employment rate has slowly but constantly increased during the last years and has now nearly reached the EU-28 average."77 The country experts nonetheless see an urgent need for further action, particularly with regard to increasing the employment rate among women, reducing the youth-unemployment rate and reducing the incidence of precarious employment: "Temporary employment contracts represent another problem, as Poland still has the highest rate of such agreements in the European Union. The PiS government has done little to foster the integration of youth, less-skilled workers and women in the labor market, who still earn 17% less than men, and to increase the share of regular employment contracts. Since the PiS government's introduction of the generous "500+" child allowance policy, it is esteimated that over 100,000 women have withdrawn from the labor market. The government's main reform project in the field of labor market policy has been the increase of the minimum wage. Following strong rises in the past, the latter was further increased from PLN 13.70 per hour and PLN 2,100 per month in 2018 to PLN 14.70 and PLN 2,250 in 2019, a rise of more than 7%. While these politically popular moves have improved the financial situation of low-wage earners, they have raised concerns about negative employment effects and a rise in the shadow economy. In some parts of the country and for some professions, labor shortages have become an increasingly pressing issue, and the decrease in the pension age will contribute to an even lower labor-force participation rate, especially among women."78

In Malta too, labor-market access has improved significantly in recent years. The employment rate has risen from 55.5% in SJI 2009 to today's 71.4%, placing the country in the middle ranks of the EU and OECD sample group. Unemployment rates both in the general population and among low-skilled workers have fallen. The country now figures among the country sample's top-ten performers for both indicators. The country experts cite a range of factors in explaining this success: "This is largely attributable to a broad range of measures undertaken by the gov-ernment to reduce unemployment. These include a Strategy for Active Aging, the Youth Employment Guarantee Scheme, extended training programs, a reduction in income tax, tapering of social benefits and an in-work benefit scheme. While Malta possesses a consolidated support system for the unemployed consisting of social benefits and retraining opportunities, schemes to help low-skilled individuals find employment have only been introduced recently."<sup>79</sup>

Despite the upward trend, there remains a need for improvement with regard to the labor-market integration of the older population. The employment rate among 55- to 64-year-olds has risen from its 2009 level of 30.1% to 49.7%; however, this rate remains low in cross-national comparison, with only seven countries showing a lower value. Much the same is true of the employment rate among women. This too has increased significantly, but remains relatively low in comparison with that of other countries. In order to increase women's participation in the labor market, the Maltese government has put together a comprehensive package of measures: "Various measures have also been introduced to increase female labor market participation rates. Policies worth noting include

77 Matthes, Markowski and Bönker (2019), available at www.sgi-network.org.

<sup>78</sup> Matthes, Markowski and Bönker (2019), available at www.sgi-network.org.

<sup>79</sup> Pirotta, Calleja and Colino (2019), available at www.sgi-network.org.

### FIGURE 22 Older Employment Rate

Unit: Percent

						tice Inde				
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	82.9	79.8	81.1	84.8	84.8	84.6	83.9	80.7	⊣-2.
2	New Zealand	71.6	73.2	74.3	76.2	75.2	76.1	78.2	77.9	6.3
3	Sweden	70.1	70.4	73.6	74.0	74.5	75.5	76.4	77.9	7.8
4	Japan	66.3	65.2	66.8	68.7	70.0	71.4	73.3	75.2	8.9
5	Switzerland	68.4	66.2	69.3	69.2	70.3	71.5	72.2	72.6	4.2
6	Norway	69.2	68.6	71.1	72.2	72.2	72.6	71.9	72.0	2.8
7	Germany	53.7	57.8	63.6	65.6	66.2	68.6	70.1	71.4	17.7
8	Denmark	58.4	58.4	61.7	63.2	64.7	67.8	68.9	70.7	12.3
9	Estonia	62.3	53.8	62.6	64.0	64.5	65.2	68.1	68.9	6.6
10	Lithuania	53.0	48.3	53.4	56.2	60.4	64.6	66.1	68.5	15.5
11	Netherlands	50.0	52.9	59.2	59.9	61.7	63.5	65.7	67.7	17.7
12	Israel	58.3	59.6	64.6	65.1	66.2	66.5	66.8	67.3	8.9
13	Korea	60.6	60.9	64.4	65.8	66.0	66.2	67.5	66.8	6.3
14	Chile	56.2	58.0	64.0	64.2	64.5	63.8	65.3	65.6	9.4
15	Finland	56.5	56.2	58.5	59.1	60.0	61.4	62.5	65.4	8.9
	Latvia	59.1	47.8	54.8	56.4	59.4	61.4	62.3	65.4	6.3
17	United Kingdom	58.0	57.2	59.8	61.0	62.2	63.4	64.1	65.3	7.3
18	Czechia	47.6	46.5	51.6	54.0	55.5	58.5	62.1	65.1	17.5
19	Australia	57.3	60.6	61.4	61.4	62.1	62.5	63.6	63.8	6.5
20	United States	62.1	60.3	60.9	61.4	61.5	61.8	62.5	63.1	0.9
21	Canada	57.2	58.1	60.3	60.4	60.9	61.6	62.2	63.0	5.7
22	Cyprus	54.8	56.3	49.6	46.9	48.5	52.2	55.3	60.9	6.1
23	Bulgaria	46.0	44.9	47.4	50.0	53.0	54.5	58.2	60.7	14.7
24	Ireland	53.8	50.2	51.2	52.6	55.4	56.8	58.4	60.4	6.6
25	Portugal	50.7	49.5	46.9	47.8	49.9	52.1	56.2	59.2	8.5
26	Mexico	53.8	53.5	55.0	55.0	54.7	55.0	54.9	55.3	1.5
									54.4	
27	Hungary	30.9	33.6	37.9	41.7	45.3	49.8	51.7		23.5
28	Slovakia	39.2	40.5	44.0	44.8	47.0	49.0	53.0	54.2	15.0
29	Austria	38.8	41.2	43.8	45.1	46.3	49.2	51.3	54.0	15.2
30	Italy	34.3	36.5	42.7	46.2	48.2	50.3	52.2	53.7	19.4
31	Spain -	45.5	43.5	43.2	44.3	46.9	49.1	50.5	52.2	6.7
32	France	38.2	39.7	45.6	46.9	48.7	49.8	51.3	52.1	13.9
33	Belgium	34.5	37.3	41.7	42.7	44.0	45.4	48.3	50.3	15.8
34	Malta	30.1	31.9	37.1	39.5	42.3	45.8	47.2	49.7	19.6
35	Poland	31.6	34.1	40.6	42.5	44.3	46.2	48.3	48.9	17.3
36	Slovenia	32.8	35.0	33.5	35.4	36.6	38.5	42.7	47.0	14.2
37	Romania	43.1	40.7	41.8	43.1	41.1	42.8	44.5	46.3	3.2
38	Croatia	37.1	39.1	37.8	36.2	39.2	38.1	40.3	42.8	5.7
39	Greece	43.0	42.4	35.6	34.0	34.3	36.3	38.3	41.1	1.9
40	Luxembourg	34.1	39.6	40.5	42.5	38.4	39.6	39.8	40.5	6.4
41	Turkey	27.5	29.6	31.5	31.4	31.8	33.4	34.4	35.3	7.8

Source: Eurostat & OECD.

the introduction of free child-care centers in 2014, along with the strengthening of breakfast and after-school clubs. Paid leave maternity, adoption and assisted procreation policies are all now well established. The government has also established a collective maternity fund financed by the private sector, with the goal of reducing discrimination. The in-work benefit scheme has also been extended for single-earner households with children, with 2,684 individuals receiving benefits as of January 2018."<sup>80</sup>

Labor-market access is most problematic in the southern European states of Italy, Spain and Greece, which are at the bottom of the sample's rankings. While a slight but steady upward trend has been evident in Italy and Spain since the SJI 2015, labor-market conditions in Greece remain distressing. Although the employment rate has risen since 2013, and the unemployment rate has declined, the country still has the country sample's highest unemployment rate (19.5%) by some distance, along with the second-lowest employment rate (54.9%). The country experts point to several factors that have contributed to the slight recovery: "The recorded progress in tackling unemployment is owed to several factors, including low wages, a rise in part-time or rotation jobs, growth in the tourism sector (where jobs are available during the long Greek summer, lasting from April to October each year), and an increase in emigration (of both skilled workers and migrants)."<sup>81</sup>

To make matters worse, a large proportion of unemployed Greeks have been out of work for more than a year. The long-term unemployment rate is 13.7%, about four times as high as the corresponding rate a decade ago (3.7%), and more than twice as high as that in Spain and Italy, whose rate of 6.4% for this indicator places these countries at the second-to-last place: "Most of these long-term unemployed people lose their skills and are unable to find new jobs. They are thus led to poverty and social exclusion or leave the country."<sup>82</sup> The job opportunities open to young people in Greece also remain highly limited. While the youth-unemployment rate has been significantly reduced in recent years, around 40% of young people in Greece remain without work.

The slight improvement in Greek labor-market conditions has also been clouded by a further rise in the incidence of precarious employment. Involuntary parttime employment accounts for a 70.1% share of all part-time employment, while 21.7% of the working population are low-income earners: "The pre-crisis division of insiders and outsiders has remained acute. Public sector employees, most of whom enjoy job security, have more or less successfully adapted to lower living standards. In contrast, private sector employees are faced with the recurring problem of unemployment. Moreover, as in the previous period under review, there has been a rise in part-time and short-term labor contracts. In summary, the slight improvement in the overall unemployment rate in the period under review is a sign of progress. This progress, however, is endangered by a combination of adverse macroeconomic constraints, rise in precarious work, continued brain drain and degradation among the long-term unemployed."<sup>83</sup>

- 80 Pirotta, Calleja and Colino (2019), available at www.sgi-network.org.
- 81 Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.
- 82 Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.
- 83 Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.

## FIGURE 23 Employment Rate, Women/Men

Unit: Ratio

	tio			S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Lithuania	0.92	1.04	0.97	0.98	0.98	0.98	0.99	0.98	0.0
2	Sweden	0.94	0.93	0.95	0.96	0.96	0.97	0.96	0.96	0.03
3	Finland	0.94	0.96	0.97	0.98	0.98	0.96	0.96	0.96	0.02
4	Latvia	0.91	1.02	0.95	0.94	0.95	0.97	0.95	0.95	0.04
5	Norway	0.94	0.95	0.95	0.95	0.95	0.96	0.96	0.94	0.01
6	Iceland	0.91	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.03
7	Denmark	0.91	0.94	0.93	0.92	0.92	0.93	0.93	0.93	0.02
8	Israel	0.85	0.88	0.88	0.90	0.89	0.91	0.91	0.93	0.08
9	Canada	0.91	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.02
10	Portugal	0.85	0.87	0.91	0.91	0.91	0.91	0.91	0.92	0.07
11	Estonia	0.90	0.99	0.92	0.91	0.91	0.91	0.92	0.91	0.01
12	Slovenia	0.88	0.90	0.88	0.89	0.88	0.91	0.91	0.91	0.02
13	Germany	0.85	0.87	0.88	0.89	0.90	0.90	0.91	0.90	0.06
14	France	0.87	0.88	0.89	0.90	0.90	0.90	0.89	0.90	0.03
15	Luxembourg	0.77	0.78	0.82	0.83	0.85	0.86	0.89	0.90	0.13
16	Switzerland	0.86	0.86	0.88	0.89	0.89	0.90	0.89	0.90	0.04
17	Bulgaria	0.87	0.89	0.91	0.91	0.91	0.90	0.89	0.89	0.03
18	Netherlands	0.83	0.86	0.88	0.87	0.88	0.88	0.89	0.89	0.06
19	Belgium	0.82	0.84	0.86	0.88	0.89	0.87	0.87	0.89	0.07
20	New Zealand	0.85	0.85	0.87	0.87	0.87	0.88	0.88	0.89	0.04
21	United Kingdom	0.85	0.87	0.87	0.87	0.88	0.88	0.89	0.89	0.04
22	Austria	0.84	0.86	0.88	0.89	0.89	0.90	0.90	0.89	0.04
23	Australia	0.84	0.84	0.86	0.86	0.86	0.87	0.87	0.88	0.05
24	Cyprus	0.79	0.84	0.85	0.89	0.88	0.86	0.88	0.88	0.08
25	United States	0.86	0.88	0.86	0.86	0.85	0.86	0.86	0.86	0.00
26	Croatia	0.78	0.83	0.86	0.85	0.86	0.85	0.85	0.85	0.07
27	Ireland	0.81	0.88	0.86	0.85	0.84	0.85	0.85	0.85	0.05
28	Spain	0.76	0.81	0.85	0.84	0.84	0.84	0.84	0.84	0.08
29	Japan	0.73	0.75	0.77	0.78	0.79	0.80	0.81	0.83	0.10
30	Slovakia	0.78	0.80	0.80	0.80	0.80	0.82	0.84	0.83	0.05
31	Czechia	0.76	0.77	0.79	0.79	0.80	0.81	0.82	0.83	0.06
32	Poland	0.79	0.81	0.80	0.81	0.82	0.82	0.82	0.82	0.03
33	Hungary	0.80	0.84	0.83	0.82	0.82	0.82	0.82	0.82	0.01
34	Romania	0.80	0.77	0.78	0.78	0.77	0.76	0.78	0.77	0.03
35	Korea	0.71	0.71	0.70	0.70	0.73	0.70	0.75	0.75	0.04
36	Malta	0.52	0.54	0.65	0.68	0.68	0.70	0.72	0.75	0.23
37	Chile	0.52	0.65	0.69	0.71	0.00	0.70	0.72	0.74	0.14
38	Italy	0.67	0.68	0.72	0.71	0.71	0.72	0.73	0.74	0.06
	Greece	0.67		0.72					0.73	0.05
39			0.68		0.71	0.72	0.71	0.71		0.05
40	Mexico	0.54	0.55	0.57	0.57	0.57	0.57	0.57	0.58	
41	Turkey	0.35	0.39	0.43	0.42	0.44	0.45	0.46	0.46	0.11

Bertelsmann Stiftung

Source: Eurostat & OECD.

In Italy too, labor-market conditions remain difficult despite positive trends. At 58.5%, the employment rate has returned to pre-crisis levels; however, it remains the third-lowest in the country sample. The unemployment rate, at 10.8% (rank 38), is also significantly higher than before the beginning of the crisis (6.8%). By contrast, it is encouraging that significantly more older people are employed today. The employment rate among 55- to 64-year-olds has increased over the last decade from 34.3% to 53.7%. For young people too, the situation has improved somewhat. However, it remains unfavorable overall. After rising from 21.2% to 42.7% in the course of the crisis, the youth-employment rate has since declined back to 32.2%.

The country experts point to an increase in labor-market flexibility as one key factor driving these developments. "Starting in 2014, the Renzi and Gentiloni governments have shown the willingness to tackle this problem more resolutely. After some more limited but immediate measures to make the hiring of young people easier, the government launched a systematic revision of the labor code aimed at encouraging firms to adopt more flexible but also stable labor contracts. The law, informally called the Jobs Act, has given the government broad discretion to define specific labor market norms and has been accompanied by fiscal measures that should make the hiring of new workers more convenient for firms. During the period under review, the government has continued along the same path, gradually expanding the scope of this law and encouraging a new type of labor contract. This new labor contract increases employers' ability to hire and fire, while also encouraging a shift from precarious to long-term contracts. During for workers on short-term contracts and independent workers."<sup>84</sup>

Turkey exhibits the lowest employment rates of any country in the SJI 2019, both among the general population (52%) and among older people (35.3%). The unemployment rate too is quite high, at 11.1%. Only Spain and Greece show worse values. Particularly striking is Turkey's labor-market participation rate among women, which is lower than any other country in the SJI 2019 sample. Indeed, the employment rate among women is less than half that among the male population (rank 41). The unemployment rate among young people, at 20.2%, is also very high, with only six countries showing a higher rate: "A major medium-term challenge facing the government is the need to create more and better paying jobs for Turkey's young and growing population, since many young people (15 to 24 years old) are not in employment, education or training. The unemployment rate of young people increased from 17.7% in June 2015 to 19.4% in June 2018. Another major medium-term challenge for Turkey involves boosting women's participation rate in the labor force. Despite notable job-creation successes in recent years, almost half of Turkey's working-age population fails to enter the labor market, a problem largely attributable to women's low participation rates."85

Despite slight improvements in recent years, France sits at the fourth-lowest place in the labor-market rankings. Only the crisis-torn countries of Italy, Spain and Greece perform more poorly. For example, the employment rate in France is

<sup>84</sup> Cotta, Maruhn and Colino (2019), available at www.sgi-network.org.

<sup>85</sup> Genckaya, Togan, Schulz and Karadag (2019), available at www.sgi-network.org.

# FIGURE 24 Unemployment Rate

Unit: Percent

onne. r ei				S	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Czechia	4.4	7.4	7.0	6.2	5.1	4.0	2.9	2.3	-2.1
2	Japan	4.2	5.3	4.3	3.8	3.5	3.3	3.0	2.6	-1.6
3	Iceland	3.0	7.7	5.5	5.1	4.2	3.1	2.9	2.8	-0.2
4	Mexico	4.0	5.5	5.1	5.0	4.5	4.0	3.6	3.4	-0.6
5	Germany	7.6	7.1	5.3	5.1	4.7	4.2	3.8	3.5	-4.1
6	Hungary	7.9	11.3	10.2	7.8	6.8	5.1	4.2	3.7	-4.2
7	Malta	6.0	6.9	6.2	5.8	5.4	4.7	4.1	3.8	-2.2
	Netherlands	3.7	5.1	7.3	7.5	6.9	6.1	4.9	3.8	0.1
9	Norway	2.6	3.6	3.5	3.6	4.4	4.8	4.3	3.9	1.3
	Poland	7.2	9.7	10.5	9.1	7.6	6.2	5.0	3.9	-3.3
11	Korea	3.3	3.8	3.2	3.6	3.7	3.8	3.8	3.9	0.6
12	United States	5.9	9.8	7.5	6.3	5.4	4.9	4.4	3.9	-1.9
13	Israel	7.8	8.6	6.3	6.0	5.3	4.9	4.3	4.1	-3.7
14	United Kingdom	5.7	7.9	7.7	6.3	5.4	4.9	4.4	4.1	-1.6
15	Romania	6.1	7.3	7.4	7.1	7.0	6.1	5.1	4.3	-1.8
16	New Zealand	4.3	6.7	6.5	6.0	6.0	5.4	4.9	4.5	0.2
17	Austria	4.2	4.9	5.4	5.7	5.8	6.1	5.6	4.9	0.7
	Switzerland	3.4	4.9	4.9	5.0	4.9	5.1	5.0	4.9	1.5
19	Denmark	3.5	7.6	7.2	6.8	6.3	6.3	5.9	5.1	1.6
20	Slovenia	4.5	7.4	10.3	9.9	9.1	8.1	6.7	5.2	0.7
21	Bulgaria	5.7	10.3	13.0	11.5	9.2	7.7	6.2	5.3	-0.4
22	Estonia	5.6	17.1	8.9	7.5	6.3	7.0	5.9	5.4	-0.2
23	Australia	4.3	5.3	5.8	6.2	6.2	5.9	5.8	5.5	1.2
24	Luxembourg	5.1	4.4	5.9	5.9	6.7	6.3	5.5	5.6	0.5
25	Canada	6.2	8.2	7.2	7.0	7.0	7.1	6.4	5.9	-0.3
	Ireland	6.9	14.8	14.0	12.1	10.1	8.6	6.9	5.9	-1.0
27	Belgium	7.0	8.4	8.5	8.6	8.6	7.9	7.1	6.0	-1.0
28	Lithuania	5.9	18.1	12.0	10.9	9.3	8.1	7.3	6.3	0.4
29	Sweden	6.3	8.8	8.2	8.1	7.6	7.1	6.9	6.5	0.2
30	Slovakia	9.5	14.4	14.3	13.2	11.5	9.7	8.2	6.6	-2.9
31	Portugal	8.0	11.4	17.0	14.5	12.9	11.5	9.2	7.3	-0.7
32	Chile	9.5	8.4	6.2	6.6	6.5	6.8	7.0	7.4	-2.1
33	Finland	6.4	8.5	8.3	8.8	9.6	9.0	8.8	7.5	1.1
34	Latvia	8.0	19.8	12.1	11.1	10.1	9.9	8.9	7.6	-0.4
35	Croatia	8.7	11.9	17.5	17.5	16.4	13.3	11.3	8.5	-0.2
36	Cyprus	3.8	6.5	16.1	16.3	15.2	13.2	11.3	8.6	4.8
37	France	7.1	8.9	10.0	10.3	10.4	10.1	9.5	9.1	2.0
38	Italy	6.8	8.5	12.3	12.9	12.1	11.9	11.4	10.8	4.0
39	Turkey	9.9	10.9	8.9	10.1	10.4	11.1	11.1	11.1	1.2
40	Spain	11.3	20.0	26.2	24.6	22.2	19.7	17.3	15.4	4.1
41	Greece	7.9	12.9	27.7	26.7	25.1	23.7	21.7	19.5	11.6
										0 2 4 6 8 10 12 14 16 18 20

Source: Eurostat & OECD.

## FIGURE 25 Long-term Unemployment Rate

Unit: Percent

Unit: Pe	rcent			s	ocial Jus	tice Inde	×			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Korea	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
	Mexico	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.0
3	Iceland	0.4	1.3	1.0	0.6	0.5	0.5	0.3	0.3	-0.1
4	Israel	1.8	1.9	0.8	0.6	0.6	0.7	0.5	0.3	-1.5
5	United States	0.6	2.8	1.9	1.4	1.0	0.8	0.7	0.5	-0.1
6	New Zealand	0.2	0.6	0.8	0.8	0.8	0.7	0.7	0.6	0.4
7	Canada	0.4	1.0	0.9	0.9	0.8	0.8	0.8	0.6	0.2
8	Czechia	2.2	3.0	3.0	2.7	2.4	1.7	1.0	0.7	-1.5
9	Japan	1.3	1.9	1.7	1.4	1.2	1.2	1.0	0.8	-0.6
10	Chile	1.2	1.2	0.6	0.6	0.7	0.9	1.0	1.0	-0.2
11	Australia	0.8	1.0	1.1	1.2	1.2	1.1	1.1	1.0	0.2
12	Norway	0.3	0.7	0.7	0.8	1.1	1.3	1.3	1.1	0.7
	Poland	2.4	3.0	4.5	3.9	3.0	2.2	1.6	1.1	-1.4
14	Denmark	0.5	1.5	1.8	1.7	1.7	1.4	1.3	1.1	0.6
	United Kingdom	1.4	2.6	2.8	2.3	1.7	1.3	1.1	1.1	-0.3
16	Malta	2.6	3.1	2.8	2.8	2.4	1.9	1.6	1.2	-1.4
17	Estonia	1.7	7.7	4.0	3.4	2.4	2.2	2.0	1.3	-0.4
18	Sweden	0.8	1.6	1.5	1.5	1.6	1.4	1.4	1.3	0.5
19	Luxembourg	1.6	1.3	1.8	1.6	1.9	2.2	2.1	1.4	-0.3
20	Netherlands	1.3	1.4	2.6	3.0	3.0	2.6	2.0	1.4	0.1
21	Austria	1.0	1.3	1.3	1.6	1.7	2.0	1.9	1.4	0.4
22	Hungary	3.7	5.5	5.0	3.7	3.1	2.4	1.7	1.4	-2.2
23	Germany	4.0	3.4	2.4	2.3	2.1	1.7	1.6	1.5	-2.5
24	Finland	1.2	2.0	1.7	2.0	2.4	2.3	2.2	1.6	0.5
25	Switzerland	1.1	1.6	1.5	1.8	1.8	1.8	1.8	1.8	0.7
26	Romania	2.5	2.5	3.3	2.9	3.1	3.1	2.1	1.9	-0.6
27	Lithuania	1.3	7.6	5.2	4.9	4.0	3.1	2.8	2.0	0.8
28	Ireland	1.8	7.1	8.2	6.8	5.6	4.5	3.2	2.2	0.4
29	Slovenia	1.9	3.2	5.3	5.4	4.8	4.3	3.2	2.2	0.3
30	Turkey	2.4	2.8	1.9	2.1	2.2	2.3	2.4	2.5	0.1
31	Cyprus	0.5	1.3	6.2	7.8	6.9	5.9	4.6	2.7	2.2
32	Belgium	3.3	4.1	3.9	4.3	4.5	4.1	3.5	2.9	-0.4
	Bulgaria	2.9	4.8	7.5	6.9	5.6	4.5	3.4	3.1	0.2
34	U	3.8	6.0	9.6	8.6	7.4	6.4	4.6	3.2	
35	Latvia	1.9	8.9	5.9	4.8	4.6	4.1	3.3	3.2	1.3
36	Croatia	5.4	6.7	11.1	10.2	10.4	6.7	4.6	3.4	-2.0
37	France	2.6	3.6	4.0	4.6	4.6	4.6	4.3	3.8	1.2
38	Slovakia	6.6	9.2	10.0	9.3	7.6	5.8	5.1	4.1	-2.5
39	Italy	3.1	4.1	7.0	7.9	7.1	6.9	6.7	6.4	3.3
40	Spain	2.0	7.3	13.0	13.0	11.5	9.5	7.7	6.4	4.4
41	Greece	3.7	5.8	18.6	19.6	18.3	17.0	15.8	13.7	
										0 2 4 6 8 10 12 14

Source: Eurostat, OECD & ILOSTAT.

# FIGURE 26 Youth Unemployment Rate

Unit: Percent

onne. r e				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Japan	7.2	9.2	6.9	6.3	5.5	5.1	4.6	3.8	-3.5
2	Iceland	8.2	16.2	10.6	9.8	8.8	6.5	7.9	6.1	-2.1
3	Germany	10.6	9.8	7.8	7.7	7.2	7.1	6.8	6.2	-4.4
4	Czechia	9.9	18.3	19.0	15.9	12.6	10.5	7.9	6.7	-3.2
5	Mexico	7.7	9.8	9.5	9.5	8.6	7.7	6.9	6.9	0.8
6	Israel	12.5	14.3	10.5	10.6	9.3	8.6	7.3	7.2	-5.3
7	Netherlands	8.6	11.1	13.2	12.7	11.3	10.8	8.9	7.2	-1.4
8	Switzerland	7.0	8.2	8.7	8.6	8.8	8.6	8.1	7.9	0.9
9	United States	12.8	18.4	15.6	13.4	11.6	10.4	9.2	8.6	-4.2
10	Slovenia	10.4	14.7	21.6	20.2	16.3	15.2	11.2	8.8	-1.6
11	Malta	11.7	13.2	12.7	11.7	11.6	10.7	10.6	9.2	-2.5
12	Austria	8.5	9.5	9.7	10.3	10.6	11.2	9.8	9.4	0.9
	Denmark	8.0	14.0	13.1	12.6	10.8	12.0	11.0	9.4	1.4
14	Norway	7.5	9.3	9.1	7.9	9.9	11.2	10.4	9.7	2.2
15	Hungary	19.5	26.4	26.6	20.4	17.3	12.9	10.7	10.2	-9.3
16	Korea	9.3	9.7	9.3	10.0	10.5	10.7	10.3	10.5	1.2
17	Lithuania	13.3	35.7	21.9	19.3	16.3	14.5	13.3	11.1	-2.2
18	Canada	11.6	14.9	13.7	13.5	13.2	13.1	11.6	11.1	-0.5
19	United Kingdom	15.0	19.9	20.7	17.0	14.6	13.0	12.1	11.3	-3.7
20	New Zealand	11.4	17.4	16.3	15.0	14.7	13.2	12.7	11.5	0.1
21	Poland	17.3	23.7	27.3	23.9	20.8	17.7	14.8	11.7	-5.6
22	Australia	8.8	11.6	12.2	13.3	13.1	12.6	12.6	11.8	3.0
23	Estonia	12.0	32.9	18.7	15.0	13.1	13.4	12.1	11.8	-0.2
24	Latvia	13.6	36.2	23.2	19.6	16.3	17.3	17.0	12.2	-1.4
25	Bulgaria	12.7	21.9	28.4	23.8	21.6	17.2	12.9	12.7	0.0
26	Ireland	13.5	28.1	26.7	23.4	20.2	16.8	14.4	13.8	0.3
27	Luxembourg	17.9	14.2	15.5	22.6	17.3	18.9	15.4	14.2	-3.7
28	Slovakia	19.0	33.6	33.7	29.7	26.5	22.2	18.9	14.9	-4.1
29	Belgium	18.0	22.4	23.7	23.2	22.1	20.1	19.3	15.8	-2.2
30	Romania	18.6	22.1	23.7	24.0	21.7	20.6	18.3	16.2	-2.4
31	Sweden	20.2	24.8	23.5	22.9	20.4	18.9	17.9	16.8	-3.4
32	Finland	16.5	21.4	19.9	20.5	22.4	20.1	20.1	17.0	0.5
33	Chile	23.7	18.6	16.1	16.5	15.5	15.7	16.8	17.6	-6.1
34	Cyprus	9.0	16.6	38.9	36.0	32.8	29.1	24.7	20.2	11.2
	Turkey	18.5	19.7	16.9	17.8	18.5	19.5	20.5	20.2	1.7
36	Portugal	16.7	22.8	38.1	34.8	32.0	28.0	23.9	20.3	3.6
37	France	18.3	22.5	24.1	24.2	24.7	24.6	22.3	20.8	2.5
38	Croatia	23.7	32.4	50.0	45.5	42.3	31.3	27.4	23.7	0.0
39	Italy	21.2	27.9	40.0	42.7	40.3	37.8	34.7	32.2	11.0
40	Spain	24.5	41.5	55.5	53.2	48.3	44.4	38.6	34.3	9.8
41	Greece	21.9	33.0	58.3	52.4	49.8	47.3	43.6	39.9	18.0
										0 5 10 15 20 25 30 35 40

Source: Eurostat & OECD.

just 65.4% (rank 32). Moreover, only four countries perform worse than France on the unemployment, long-term unemployment and youth-unemployment indicators. The country experts explain the country's inability to reduce youth unemployment further by pointing to insufficient and inadequate labor-market policies. "According to a report released in 2017 by the National Accounting Office, the labor market policy measures currently in place to support young people are costly (€10.5 billion annually), inefficient (most young people do not find a job at the end of their publicly funded training program) and messy (there are too many unattractive and poorly managed programs). Most young people are hired on short-time contracts (two-thirds of the contracts have a duration of less than one month). The Macron government has decided to get rid of the cosmetic measures adopted in order to artificially lower unemployment, such as subsidized jobs for young people and a special focus on training and employability. In 2018, the rate of unemployment continued to decline, although a very low margin in spite of unfilled job vacancies across various sectors of the economy. More and more unskilled jobs are filled by non-EU migrants or workers from Eastern and central Europe recruited on temporary contracts in particular in the building or agriculture sectors. [...] The government has also launched immediate measures to improve job qualifications of long term unemployed and of young people who left school without a diploma, a programme involving €15billion over five years. Furthermore, a reform of the job training system has been adopted in 2018, which will upgrade apprenticeship schemes which suffer from a poor reputation"86

A look at the northern European countries of Denmark, Finland, Sweden and Norway reveals a divided picture. Employment rates in the Nordic countries remain high, ranging from 72.1% in Finland to 77.5% in Sweden (rank 3). Laborforce participation rates among older people are also high, ranging today between 65.4% in Finland (rank 15) and 77.9% in Sweden (rank 3). A further commonality can be seen in women's exceedingly good labor-market integration in all four countries. The employment rate among women in the four Nordic countries ranges between 93% and 96% of the corresponding level for men. Finally, the share of low-income workers is low in all four countries, ranging from 8.6% in Denmark (rank 8) to 2.6% in Sweden (rank 2). By contrast, foreign-born residents' as-yet-insufficient integration into the labor market represents a commonality of a more concerning variety. In this regard, the situation is most encouraging in Finland, where the unemployment rate among migrants is "only" twice as high as that among the native-born population (rank 32). Conditions are particularly dramatic in Sweden, where foreign-born residents have an unemployment rate about four times that among the native-born (rank 41). According to the Swedish country experts, "The more long-term challenge of integrating refugees into the labor market still looms large. One of the key problems is matching the recently arrived refugees to the often knowledge-intensive jobs that are available in the job market. Also, language skills remain a significant barrier for the recently arrived job seekers. Nevertheless, more and more asylum-seekers successfully enter the labor market."87

86 Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

87 Pierre, Jochem and Jahn (2019), available at www.sgi-network.org

# FIGURE 27 Involuntary Part-time Employment Rate

Unit: Percent

Unit: Per				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	United States	5.5	8.7	9.4	9.3	8.3	7.3	6.3	4.4	-1.0
2	Estonia	13.4	22.1	18.5	15.1	13.3	10.1	7.5	5.8	-7.6
3	Czechia	14.0	15.8	16.9	21.1	16.4	14.2	9.1	6.5	-7.5
	Slovenia	6.8	7.5	10.6	9.6	13.0	14.1	10.6	6.5	-0.3
5	Belgium	14.4	11.4	9.5	10.1	10.0	8.8	7.8	6.8	-7.6
6	Netherlands	4.5	5.6	9.8	10.9	9.9	9.9	8.2	7.0	2.5
7	Israel	17.0	16.5	13.8	14.0	12.4	10.9	10.7	7.0	-10.0
8	Switzerland	5.8	7.2	7.7	8.1	8.3	8.6	8.7	8.3	2.5
9	Malta	15.8	19.6	16.5	15.3	16.4	11.9	11.1	9.6	-6.2
10	Korea	16.8	23.2	11.7	14.8	14.0	14.1	11.3	10.0	-6.8
11	Germany	23.0	21.7	15.6	14.5	13.8	12.0	11.3	10.2	-12.8
12	Mexico	26.1	29.7	23.8	15.8	15.4	16.9	12.3	10.3	-15.8
13	Austria	11.2	11.6	11.8	11.5	12.4	13.0	12.4	10.5	-0.7
14	Denmark	12.7	15.6	18.3	16.9	15.7	13.8	13.8	12.1	-0.6
15	Luxembourg	9.4	7.9	10.6	12.9	14.8	11.6	13.4	12.5	3.1
16	Turkey	7.9	8.6	7.0	8.5	9.2	11.2	12.6	12.7	4.8
17	United Kingdom	10.6	10.6	20.3	18.8	17.9	16.0	14.6	13.7	3.1
18	Poland	18.5	21.7	30.9	32.3	30.5	25.4	20.8	15.9	-2.6
19	Iceland	8.7	21.7	17.6	19.7	14.9	13.0	13.2	17.4	8.7
20	Japan	24.8	30.8	22.7	21.1	20.6	19.5	17.7	17.5	-7.3
21	Ireland	13.6	31.9	42.3	40.7	37.2	30.8	23.6	17.7	4.1
22	Norway	16.3	17.8	18.8	20.3	20.6	20.6	20.6	20.6	4.3
23	Canada	22.5	27.8	27.1	27.3	26.2	25.0	24.2	21.8	-0.7
24	Hungary	28.4	35.8	43.2	41.1	36.9	29.8	26.8	22.9	-5.5
25	Sweden	26.1	28.1	29.7	29.8	29.4	28.3	27.0	23.9	-2.2
26	Lithuania	22.4	39.2	32.7	31.3	31.9	31.6	30.6	24.4	2.0
27	New Zealand	17.1	20.4	21.7	21.8	20.5	24.5	25.5	26.0	8.9
28	Slovakia	23.0	27.7	32.4	33.4	29.9	34.6	31.6	26.5	3.5
29	Australia	22.5	25.3	26.5	28.2	28.7	27.9	28.7	28.5	6.0
30	Finland	27.5	27.9	26.1	29.0	31.4	34.2	31.7	32.1	4.6
31	Latvia	31.3	42.3	40.7	38.1	32.7	35.9	34.5	33.1	1.8
32	Croatia	21.8	23.1	24.8	25.5	26.4	30.7	36.1	33.8	12.0
33	France	34.9	34.8	39.4	42.4	43.7	44.2	43.1	41.8	6.9
34	Portugal	40.3	42.1	48.8	49.3	50.1	48.7	47.5	45.2	4.9
35	Chile	56.5	56.5	50.6	49.5	47.6	48.1	48.1	47.6	-8.9
36	Romania	51.8	53.0	55.9	56.9	59.0	57.8	55.8	54.2	2.4
37	Spain	36.0	50.1	63.3	64.0	63.2	61.9	61.1	55.8	19.8
38	Bulgaria	51.0	52.7	61.8	63.2	60.6	58.7	58.7	56.9	5.9
39	Cyprus	30.3	34.7	55.8	64.9	68.9	69.4	67.6	63.9	33.6
40	Italy	41.3	50.2	62.8	65.4	65.6	64.3	62.5	65.7	24.4
41	Greece	44.1	54.7	68.2	71.2	72.6	72.0	70.2	70.1	26.0
										0 15 30 45 60 75

Source: Eurostat & OECD.

Concerning the remaining labor-market indicators, there are significant differences between Denmark and Norway on the one hand, and Finland and Sweden on the other. For example, the unemployment rate in Finland, at 7.5% (rank 33), is nearly twice as high as that in Norway, where the current rate is 3.9%. The two country groups also exhibit considerable differences with regard to youth unemployment. While Denmark and Norway fall into the top third of the 41 countries surveyed on this indicator, each with a youth-unemployment rate around 9.5%, Finland and Sweden both fall into the lowest third, with rates around 17%. A similar picture emerges when examining unemployment rates among low-skilled workers. For this indicator too, Norway (6.3%) and Denmark (6.4%) show considerably better values than Finland (11.5%) and Sweden (16.1%).

According to the Danish country experts, the relatively high minimum wage impedes the emergence of better employment opportunities for low-skilled people. "The main challenge in the Danish labor market remains among groups with limited qualifications. Since minimum wages are relatively high, it is difficult for individuals with limited qualifications to find stable jobs."88 Recent Danish labor-market policy reforms aim to improve job-seekers' skills, and increase incentives to take up work. "Following recommendations from the Kock Group, a recent reform offers less rigid participation rules for programs aimed at better matching the characteristics of the individual with the needs of the labor market. The social assistance scheme has changed to ensure that young people (below the age of 30) attain a labor market relevant education rather than receiving passive support. Additional work incentives for other groups on social assistance include both a cap on total transfers and an employment requirement to maintain support. Active labor market policies have become less rigid, but it is debatable to what extent these policies are sufficiently used. A controversial issue is whether the economic incentive to work is sufficiently strong: "does it pay to work?" Reforms of both the social assistance scheme and the tax system have been implemented to increase gains from work, and further initiatives are being discussed."89

While active labor-market policies have traditionally played a strong role in Denmark's flexicurity approach, Finland has only recently shown a shift from passive to more active labor-market policies: "Importantly, the Sipilä government has reformed the unemployment benefit system, with first amendments coming into force 1 January 2017. The first part of the reform cut the duration of earnings-related unemployment benefits from a maximum of 500 to 400 days, set stricter conditionalities for the unemployed in accepting job offers and sought to personalize employment services by interviewing job-seekers regularly. In January 2018, additional activation measures came into force, as a result unemployment benefits will be reduced for jobseekers who fail to meet a number of activation requirements. [...]."90 However, the Finnish experts note that the benefit cuts associated with the activation measures are disproportionately affecting older people over 55 years of age: "An initial evaluation indicates that the activation measures have first and foremost cut benefits for jobseekers whose labour market position is weakest (i.e., jobseekers over 55 years old). Overall, a considerable proportion of jobseekers have been unable to meet the conditions necessary to

<sup>88</sup> Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

<sup>89</sup> Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

<sup>90</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

### FIGURE 28 Low Pay Incidence

Unit: Percent

				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Turkey	0.2	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.2
2	Sweden	1.8	1.8	2.5	2.5	2.6	2.6	2.6	2.6	0.9
3	Belgium	6.8	6.8	6.4	6.4	3.8	3.8	3.8	3.8	-3.0
4	Finland	4.8	4.8	5.9	5.9	5.3	5.3	5.3	5.3	0.5
5	Iceland	11.2	11.2	9.0	9.0	7.5	7.5	7.5	7.5	-3.7
6	Norway	6.5	6.5	7.3	7.3	8.3	8.3	8.3	8.3	1.8
7	New Zealand	13.4	12.9	13.6	14.1	13.9	13.9	11.2	8.5	-4.9
8	Denmark	8.3	8.3	8.2	8.2	8.6	8.6	8.6	8.6	0.3
9	France	7.1	7.1	6.1	6.1	8.8	8.8	8.8	8.8	1.7
10	Switzerland	11.0	11.0	11.0	11.0	9.4	9.4	9.4	9.4	-1.7
11	Italy	10.3	10.3	12.4	12.4	9.4	9.4	9.4	9.4	-0.8
12	Chile	13.0	9.7	9.4	11.5	11.5	12.1	12.1	10.6	-2.5
13	Luxembourg	13.2	13.2	13.1	13.1	11.9	11.9	11.9	11.9	-1.2
14	Portugal	20.7	20.7	16.1	16.1	12.0	12.0	12.0	12.0	-8.7
15	Japan	15.4	14.7	14.3	14.2	13.9	13.5	12.7	12.3	
16	Spain	13.4	13.4	14.7	14.7	14.6	14.6	14.6	14.6	1.2
17	Austria	14.2	14.2	15.0	15.0	14.8	14.8	14.8	14.8	0.6
18	Malta	14.4	14.4	17.6	17.6	15.1	15.1	15.1	15.1	0.7
19	Australia	16.0	14.5	17.6	15.9	14.8	15.4	15.6	15.4	-0.5
20	Mexico	19.1	16.9	16.0	14.2	14.8	17.3	16.1	15.7	-3.4
21	Hungary	21.9	21.9	19.5	19.5	17.8	17.8	17.8	17.8	-4.1
22	Bulgaria	18.9	18.9	22.0	22.0	18.2	18.2	18.2	18.2	- 0.7
23	Slovenia	19.2	19.2	17.1	17.1	18.5	18.5	18.5	18.5	┥ -0.8
24	Netherlands	17.7	17.7	17.5	17.5	18.5	18.5	18.5	18.5	0.8
25	Czechia	17.1	17.1	18.2	18.2	18.7	18.7	18.7	18.7	1.6
26	Slovakia	18.3	18.3	19.0	19.0	19.2	19.2	19.2	19.2	0.9
27	Cyprus	22.7	22.7	22.6	22.6	19.3	19.3	19.3	19.3	-3.3
28	United Kingdom	21.8	21.8	22.1	22.1	21.3	21.3	21.3	21.3	-0.5
29	Ireland	21.4	21.4	20.7	20.7	21.6	21.6	21.6	21.6	0.1
30	Greece	15.7	15.7	12.8	12.8	21.7	21.7	21.7	21.7	6.0
31	Canada	22.0	20.6	21.8	21.0	22.5	22.2	22.3	22.0	0.0
32	Korea	26.0	25.0	23.9	24.7	23.7	23.5	23.5	22.3	-3.7
33	Germany	20.3	20.3	22.2	22.2	22.5	22.5	22.5	22.5	2.2
34	Israel	22.3	22.2	21.8	22.2	23.5	23.8	23.1	22.6	0.4
35	Estonia	23.2	23.2	23.8	23.8	22.8	22.8	22.8	22.8	-0.4
36	Croatia	21.4	21.4	21.4	21.4	23.1	23.1	23.1	23.1	1.8
37	Poland	24.7	24.7	24.2	24.2	23.6	23.6	23.6	23.6	-1.2
38	Lithuania	29.1	29.1	27.2	27.2	24.0	24.0	24.0	24.0	-5.2
39	Romania	26.9	26.9	25.8	25.8	24.4	24.4	24.4	24.4	
40	United States	24.5	24.8	25.3	25.1	24.9	25.0	24.9	24.5	-0.0
41	Latvia	30.9	30.9	27.8	27.8	25.5	25.5	25.5	25.5	-5.4
										0 5 10 15 20 25 30 35

Source: Eurostat & OECD.

continue to receive their benefits. These reforms have marked a shift from passive to more active labor-market policies."<sup>91</sup>

As in Denmark, labor-market policy in Norway is based on a flexicurity approach, with a focus on integrating long-term unemployed people into the labor market: "The country's labor-market policy has traditionally been proactive, with an emphasis on retraining long-term unemployed workers. Unemployment benefits are generous. Employment-protection laws place limits on dismissal procedures. However, layoff costs are small for firms that need to downsize. This guarantees a certain amount of mobility in the labor force.[...] Salaries are often set largely through centralized bargaining processes and collective agreements. In general, there is no minimum-wage policy. In most sectors, wage floors are set by negotiations between unions and employers. However, due to increased labor mobility, particularly from Eastern Europe, a growing number of economic sectors are now subject to a kind of minimum salary."<sup>92</sup>

In Sweden, by contrast, the country experts note that efforts to integrate the unemployed have involved a return to more state-supported employment. "The 2006-2014 center-right 'Alliance' government pursued a policy which incentivized unemployed to look for work by lower unemployment support. The 2014-2018 Social Democrats-Greens government was committed to increasing that support. Their policy stance marks a return to more government-sponsored employment as a means of helping the unemployed access the labor market."93 The strength of trade unions is another key feature of the labor market in Sweden. According to the experts, this has prevented a wide-ranging flexibilization of the labor market. However, it has also meant that the polarization of the labor market is less pronounced in Sweden than in other countries. "Union strength has declined rapidly in recent years, but union power remains strong by international standards. The strength of unions in part explains the relatively modest reform in labor market rules related to dismissal, minimum wage and apprentice arrangements, which would entail some workers earning a lower salary. But this applies only to insiders on the labor market because employment protection legislation for precarious work is underdeveloped. As in other European countries, Sweden's labor market is undergoing dualization, albeit at a slower speed than, for example, in Germany."94

## 4. Social inclusion and non-discrimination



In the area of social inclusion and non-discrimination, the two Scandinavian countries of Norway and Denmark top the rankings, followed closely by Luxembourg and Iceland. Bulgaria, Korea, Turkey, Japan and the United States fall into the bottom ranks, with a very significant gap between these countries and the top scorers. These lower-placed countries show significant shortcomings, in numerous areas, in the fight against social exclusion and discrimination.

- 91 Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.
- 92 Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org.
- 93 Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.
- 94 Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

### FIGURE 29 Social Inclusion and Non-discrimination

Jnit: Sc	ore			So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Norway	8.37	8.48	8.44	8.31	8.28	8.21	8.20	8.39	0.02
2	Denmark	7.88	7.83	7.80	7.82	7.59	7.61	7.72	7.75	-0.13
3	Iceland	7.68	7.74	7.73	7.63	7.58	7.61	7.71	7.50	0.17
4	Luxembourg	7.45	7.79	7.47	7.52	7.74	7.51	7.60	7.40	-0.05
5	Netherlands	8.03	8.01	8.16	7.99	7.80	7.85	7.56	7.31	-0.72
6	Canada	7.07	6.98	6.85	7.00	7.02	7.05	7.02	7.17	0.10
7	New Zealand	7.21	7.07	7.19	7.10	7.12	7.19	7.13	6.99	-0.22
8	Sweden	7.85	7.84	7.51	7.25	7.14	6.93	7.04	6.88	-0.96
9	Spain	6.74	6.34	6.10	6.07	6.34	6.44	6.43	6.78	0.04
10	Finland	7.87	7.55	7.52	7.21	6.94	7.13	6.98	6.74	-1.13
11	Portugal	6.45	6.13	6.08	5.89	6.20	6.31	6.38	6.68	0.23
12	Switzerland	6.34	6.56	6.62	6.69	6.56	6.56	6.55	6.58	0.24
13	United Kingdom	6.55	6.57	6.66	6.62	6.80	6.53	6.73	6.55	0.01
	Ireland	6.33	6.32	6.37	6.00	6.13	6.50	6.51	6.55	0.21
	Belgium	7.15	7.09	6.62	6.66	6.50	6.58	6.54	6.48	-0.68
	Australia	6.90	6.98	6.39	6.22	6.32	6.45	6.44	6.43	-0.47
17	Estonia			5.75	5.77	5.72	6.16	6.25	6.40	
18	Germany	5.91	5.93	6.37	6.41	6.30	6.23	6.32	6.34	0.42
	Slovenia			6.17	6.11	6.37	6.53	6.74	6.27	
	Austria	6.59	6.15	6.32	6.54	6.33	6.25	6.19	6.27	-0.32
	France	5.84	5.53	5.90	5.90	5.78	5.77	6.14	6.17	0.32
	Czechia	6.27	6.39	6.01	6.15	6.07	6.17	6.19	6.17	-0.10
	Cyprus			5.49	5.62	5.73	5.96	5.84	6.04	
	EU/OECD Average	6.37	6.21	5.98	5.95	5.97	6.00	5.99	6.00	
24	Malta			5.59	5.55	5.58	5.79	5.83	5.79	
	Lithuania			5.74	5.81	5.68	5.65	5.63	5.77	
	Slovakia	5.87	5.37	5.90	5.86	5.68	5.44	5.62	5.70	-0.16
	Italy	5.89	5.53	5.44	5.42	5.71	5.67	5.82	5.62	0.27
	Poland	5.46	5.49	6.30	6.03	5.94	5.93	5.61	5.56	0.10
	Greece	5.12	5.02	4.28	4.60	4.77	4.87	5.13	5.22	0.10
	Latvia	5.12	5.02	5.24	5.16	5.17	5.07	5.06	5.17	0.10
	Croatia			4.88	5.03	4.74	4.85	5.08	5.00	
	Israel			5.37	5.33	5.17	5.26	4.98	4.99	
	Hungary	5.63	5.49	5.03	4.83	4.73	4.89	4.85	4.88	-0.75
	Chile	5.05	4.02	4.11	4.05	4.73	4.67	4.85	4.87	-0.75
	Romania		4.02	4.11	4.15	4.31	4.45	4.70	4.87	
	Mexico	4.22	4.02	4.30	4.20	4.13	4.20	4.63	4.05	0.55
	United States	4.22 5.13	4.02 5.04	4.32	4.20 5.04	4.51 5.46	4.52 5.18	4.60		
	Japan	5.13	5.04 4.99	4.95	5.04 4.87	5.46 4.72	4.72	4.61	4.60 4.59	
	Turkey	3.10	3.22	3.73	4.09	4.41	4.45	4.45	4.52	· · · · · · · · · · · · · · · · · · ·
	Korea	5.16	4.99	5.35	5.37	5.37	5.37	4.28	4.28	
41	Bulgaria			4.23	4.04	4.14	4.08	3.96	4.13	

Source: Social Justice Index.

Across the 41 OECD and EU countries as a whole, the average score in the social inclusion and non-discrimination dimension has declined since the SJI 2009. This reached its nadir during the crisis era of the SJI 2014. Yet while the downward side has since been arrested, average performance in the dimension has shown little in the way of deterioration or improvement in the interim years, staying nearly constant at a score of around six points.

However, individual developments in specific countries paint an entirely different picture. Some countries have not succeeded in halting the downward trend since the end of the financial crisis. This includes countries such as Hungary and the United States, which have found it difficult to strengthen social inclusion and carry on the fight against discrimination successfully.

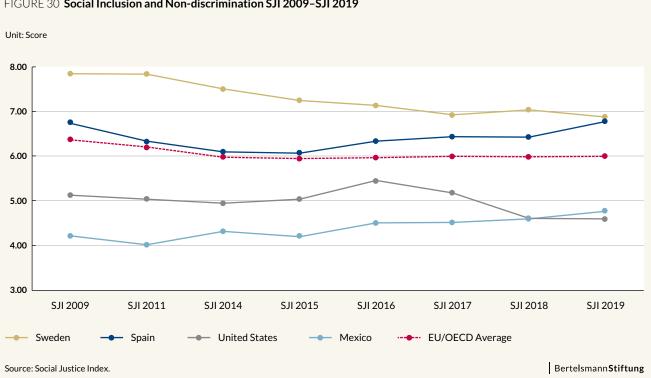


FIGURE 30 Social Inclusion and Non-discrimination SJI 2009-SJI 2019

Due to its strong social polarization, Israel has also had immense problems in integrating large portions of society: "Israel's social spending and tax policies create a dissonance between overall moderate growth rates on the one hand and ongoing social polarization on the other. This polarization is reflected in several dimensions, including a persistent gender-based pay gap, significant average wage differences between different sub-groups, and significant inequalities within the elderly population relative to their state before retirement. Differences on the basis of gender and ethnicity are narrowing somewhat, but remain prominent. For example, average income for Israeli-Ethiopians is about half the overall average, and the average income among the Arab population is about two-thirds of the overall average. The poverty rate within the Arab minority group is three times higher than in the Jewish majority group, with a similar rate evident in the ultra-orthodox Jewish group. Given this persistent polarization, it is difficult to identify significant social-policy successes in Israel in recent years. In recent years, Israel's government launched a five-year comprehensive program aimed at economic and structural development within the Arab population. However, the original budget allocation of ILS 15.5 billion has been reduced to ILS 9.7 billion, excluding the education component. As of 2018, the program is progressing according to plan, with about one third of the budget having been spent on various projects related to housing, jurisdiction mapping, education, representation of Arabs in the public sector and the improvement in the quality of local Israeli-Arab authority personnel."<sup>95</sup>

In Chile too, social division has shown little sign of diminishing: "In terms of opportunity for upward mobility, Chile still fails to overcome a long lasting and broadening social gap. For instance, considerable exclusion along ethnic lines and a large gap between poor parts of the population and the middle class remain. There is also little upward mobility within higher income groups. The public education system provides a comparatively low-quality education to those who lack adequate financial resources, while the approach to social policy promoted and supported by the Chilean elite maintains this very unequal social structure. Although some social programs seeking to improve the situation of society's poorest people have been established and extended, the economic system (characterized by oligopolistic and concentrated structures in almost all domains) does not allow the integration of considerable portions of society into the country's middle class. Moreover, the lower-middle class in particular can be regarded more as a statistical category than a realistic characterization of people's quality of life, given that the majority of the Chilean middle class runs a perpetual risk of falling (material) living standards, as their consumer spending is mainly financed by credit and individual debt. If a household's primary income earner loses his or her job, or a family member has serious health troubles, families tend to face rapid impoverishment."96

Nations such as the Netherlands, Sweden and Finland have served as models with regard to social inclusion and non-discrimination. Yet despite their still-good overall results, these countries too have displayed increasing shortcomings with regard to counteracting social polarization and exclusion. In explaining Finland's persistent negative trend in the social inclusion and non-discrimination dimension, the country experts observe that the country is still struggling to overcome some consequences of the economic crisis. The Finnish government is failing to integrate a large share of people into the labor market. This means that young people and migrants in particular are threatened with social exclusion: "While social policy largely prevents poverty and the income-redistribution system has proven to be one of the most efficient in the European Union, pockets of relative poverty and social exclusion still prevail. Furthermore, inequalities in well-being exist between regions and municipalities, depending on demographic composition and economic strength. In general, the previous economic crisis in Finland has exposed an increasing number of people to long-term unemployment and poverty. In terms of life satisfaction and gender equality, the government has

<sup>95</sup> Levi-Faur, Hofmann and Karadag (2019), available at ww.sgi-network.org.

<sup>96</sup> Klein, von Knebel, Zilla and Thunert (2019), available at www.sgi-network.org.

embarked on a number of programs to improve its performance. The Act on Equality between Women and Men was passed in 1986 and gender discrimination is prohibited under additional legislation. Despite this legislation, inequalities between men and women prevail, especially in the workplace. The government has placed a particular emphasis on programs for at-risk youth from 15 to 17 years old who experience social exclusion, as well as on programs to create equal opportunities for disabled individuals. Immigrants are another group that faces social exclusion, especially due to poor integration in the labor market."<sup>97</sup>

In Sweden's case, the experts note that certain inclusion-relevant idiosyncrasies have diminished over time. "If we compare Sweden with other countries, we find that recent developments challenge the country's historical position as a leader in the public provision of welfare through wealth redistribution and as a country with extremely low levels of poverty. Together, the data and recent developments suggest that Sweden is gradually losing its leading role in these respects and is today largely at par with other European countries in terms of its poverty levels and income distribution. If Sweden could previously boast an egalitarian and inclusive society, there is less justification to do so today. Reflecting on the 2014 general elections, Bo Rothstein concludes that "the days of Swedish exceptional-ism are over." Not only does Sweden now have a strong anti-immigration party in its parliament, core data on Sweden's welfare state are moving toward levels found among comparable, average-performing countries. This pattern continues to hold true in 2018, not least after the general elections."<sup>98</sup>

Both countries also show a negative trend with regard to income inequality. While Sweden was able to halt the downward trend in this year's SJI for the time being, income inequality continues to increase slightly in Finland. With a Gini value of 25.9%, Finland still achieves a good 7th rank in the international comparison. Sweden, the erstwhile leader in terms of income equality, is ranked at 9th place at a value of 27%.

Slovakia and Slovenia are the top performers with regard to fair income distribution, with Czechia, Iceland and Norway also on the rise. These countries have been able to reduce income inequality significantly enough to reach or even improve upon pre-crisis levels. In Germany, despite the continuation of very positive labor-market conditions, income inequality has reached its highest level in the past decade. The country currently holds rank 22 in this area.

The largest income dispersions are still to be found in Chile (46%), Mexico (45.8%) and Turkey (43%). However, even in the USA, Bulgaria and Lithuania the problem of strong income inequality remains. In Bulgaria, the already-high Gini coefficient has risen from 34.5% in the SJI 2009 to its current level of 39.6%. According to numerous studies, rising income inequality has a negative effect not only on societal inclusion, but can also have a negative influence on economic growth due to the diminished educational and thus labor-market opportunities for socially disadvantaged people. Redistribution through taxes and other transfers thus holds the potential to have a positive impact on growth, provided that

<sup>97</sup> Anckar, Kuitto, Oberst and Jahn (2018), available at www.sgi-network.org.

<sup>98</sup> Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

### FIGURE 31 Gini Coefficient

Unit: Percent

Rank						tice Inde				
	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Slovakia	23.7	25.9	24.2	26.1	23.7	24.3	23.2	23.2	-0.5
2	Slovenia	23.4	23.8	24.4	25.0	24.5	24.4	23.7	23.4	0.0
3	Czechia	24.7	24.9	24.6	25.1	25.0	25.1	24.5	24.0	-0.7
4	Iceland	27.3	25.7	24.0	22.7	24.7	24.1	24.1	24.1	-3.2
5	Norway	25.1	23.6	22.7	23.5	23.9	25.0	26.1	24.8	-0.3
6	Belgium	27.5	26.6	25.9	25.9	26.2	26.3	26.0	25.6	-1.9
7	Finland	26.3	25.4	25.4	25.6	25.2	25.4	25.3	25.9	-0.4
8	Austria	27.7	28.3	27.0	27.6	27.2	27.2	27.9	26.8	0.9
9	Sweden	25.1	25.5	26.0	26.9	26.7	27.6	28.0	27.0	1.9
10	Netherlands	27.6	25.5	25.1	26.2	26.7	26.9	27.1	27.4	-0.2
11	Denmark	25.1	26.9	26.8	27.7	27.4	27.7	27.6	27.8	2.7
	Poland	32.0	31.1	30.7	30.8	30.6	29.8	29.2	27.8	-4.2
13	France	29.8	29.8	30.1	29.2	29.2	29.3	28.8	28.5	-1.3
14	Hungary	25.2	24.1	28.3	28.6	28.2	28.2	28.1	28.7	3.5
	Malta	28.1	28.6	28.0	27.7	28.1	28.6	28.2	28.7	0.6
16	Cyprus	29.0	30.1	32.4	34.8	33.6	32.1	30.8	29.1	0.1
17	Croatia	31.6	31.6	30.9	30.2	30.4	29.8	29.9	29.7	-1.9
	Switzerland	31.1	29.6	28.5	29.5	29.6	29.4	30.1	29.7	1.4
19	Estonia	30.9	31.3	32.9	35.6	34.8	32.7	31.6	30.6	-0.3
	Ireland	29.9	30.7	30.7	31.1	29.7	29.6	30.6	30.6	0.7
21	Canada	31.5	31.6	32.0	31.3	31.8	30.7	31.0	31.0	-0.5
22	Germany	30.2	29.3	29.7	30.7	30.1	29.5	29.1	31.1	0.9
23	Portugal	35.8	33.7	34.2	34.5	34.0	33.9	33.5	32.1	
24	Greece	33.4	32.9	34.4	34.5	34.2	34.3	33.4	32.3	-1.1
25	Australia	32.6	32.6	32.6	33.7	33.7	33.0	33.0	33.0	0.4
26	United Kingdom	33.9	32.9	30.2	31.6	32.4	31.5	33.1	33.1	-0.8
27	Luxembourg	27.7	27.9	30.4	28.7	28.5	31.0	30.9	33.2	5.5
	Spain	32.4	33.5	33.7	34.7	34.6	34.5	34.1	33.2	0.8
29	Italy	31.2	31.7	32.8	32.4	32.4	33.1	32.7	33.4	2.2
30	Japan	33.6	33.6	33.0	33.0	33.9	33.9	33.9	33.9	0.3
31	Israel	37.1	37.1	36.0	36.5	36.0	34.6	34.4	34.4	
32	New Zealand	32.3	32.3	33.3	34.9	34.9	34.9	34.9	34.9	2.6
33	Romania	35.9	33.5	34.6	35.0	37.4	34.7	33.1	35.1	0.8
34	Korea	35.2	35.2	35.2	35.2	35.2	35.5	35.5	35.5	0.3
35	Latvia Lithuania	37.5 34.5	35.9	35.2 34.6	35.5 35.0	35.4	34.5	34.5	35.6 36.9	-1.9
36 37	United States	34.5 39.6	37.0 39.6	34.6 39.6	35.0 39.4	37.9 39.0	37.0 39.1	37.6 39.0	36.9 39.0	
37	Bulgaria	35.9	33.2	39.0	35.4	37.0	37.7	40.2	39.0 39.6	3.7
30 39	Turkey	43.0	43.5	42.1	41.2	41.9	42.6	40.2	43.0	0.0
39 40	Тигкеу Mexico	43.0	43.5	42.1	41.2	41.9	42.6	43.0	43.0 45.8	0.1
40	Chile	45.7	43.7	45.7	45.9	45.4	45.6 45.4	45.8	45.8 46.0	
41	Cille	40.0	40.0	-0.5	-0.5	40.4	40.4	40.0	40.0	0 5 10 15 20 25 30 35 40 45 50

Bertelsmann Stiftung

Source: Eurostat & OECD.

measures are well-targeted. For this reason, efforts to achieve a fair distribution of income would be beneficial from the points of view of equity and wealth.<sup>99</sup>

Turkey does not only perform poorly in the area of income equality. The country is failing dramatically in the dimension as a whole despite a slight improvement in the score. Turkey's poor performance with regard to social inclusion and non-discrimination is in large part due to the serious repression that has been exercised against a number of political and social groups: "The executive's political discourse discriminates and insults opposition groups, including the CHP (the main opposition party), the HDP (the pro-Kurdish party), journalists, academics and LGBT communities. [...] During the first four months of 2018, 2,265 newspaper columns and articles targeted national, ethnic and religious groups, with 2,370 instances of hate speech identified in these articles. The principle of non-discrimination is not sufficiently protected by law nor enforced in practice. Turkey did not ratify Protocol 12 of the ECHR, prohibiting discrimination. The definition of hate crime is excessively narrow, while the Criminal Code does not explicitly provide that racist, homophobic or transphobic motivations constitute an aggravating circumstance. Core elements of the anti-discrimination law are not in line with recommendations from the European Commission against Racism and Intolerance (ECRI). The educational needs of refugee children, work permits for refugees and return of displaced Kurds are major issues affecting the integration of disadvantage groups. Although Turkey ratified the Council of Europe Istanbul Convention on preventing and combating violence against women and domestic violence, gender-related violence, hate speech and discrimination against LGBT communities which do not have any legal protections are serious problems."100

The five southern European countries of Bulgaria, Romania, Slovakia, Croatia and Hungary are also largely failing in the fight against discrimination. In each of these countries, governments have been unable to counter – or are largely responsible for - the hostility against and broad marginalization of the Roma minority. As the country experts from Croatia note, migrants, LGBTQ people and people with disabilities are also strongly affected by discrimination: "[A]lthough discrimination is prohibited by the law, the legislation has not been fully implemented, and certain vulnerable groups still experience widespread discrimination. In particular, the Roma encounter discrimination in almost all areas of life, especially in education and employment. The rights of LGBT persons have been subject to pressures fueled by various types of disinformation about gender, sex and sexual orientation, often propagated by conservative NGOs and initiatives, such as the Truth about Istanbul Convention initiative. According to the initiative's backers, the Istanbul Convention promotes "gender ideology," something they strongly oppose. All these processes have had a negative effect on the capacity of LGBT persons in Croatia to exercise their human rights."101

The country experts in Poland come to similar conclusions regarding that country's current anti-discrimination policy challenges. There, the government has sharply limited NGOs' influence within public debates: "A comprehensive Anti-Discrimination Act in line with EU directives has been in effect only since

99 See OECD (2015), In It Together.

100 Genckaya, Togan, Schulz and Karadag (2019), available at www.sgi-network.org.

101 Petak, Bartlett and Bönker (2019), available at www.sgi-network.org.

# FIGURE 32 Non-discrimination Policy (SGI)

Unit: Standardized Scale

				S	ocial Jus	tice Inde	x			
lank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Ireland	9	9	9	9	9	9	9	9	0
	Norway	9	9	9	9	9	9	9	9	0
	Sweden	8	9	9	9	9	9	9	9	1
4	Canada	9	9	8	8	8	8	8	8	
	Cyprus			8	8	8	8	8	8	
	Denmark	7	7	8	8	8	8	8	8	1
	Estonia			7	8	7	8	7	8	
	Finland	9	9	8	8	8	8	8	8	-1
	Germany	8	8	8	8	8	8	8	8	0
	Luxembourg	7	8	8	8	8	8	8	8	1
	New Zealand	9	9	9	9	9	9	9	8	-1
	Switzerland	7	8	8	8	8	8	8	8	1
	United States	9	9	9	9	9	8	8	8	-1
14	Australia	7	8	7	7	7	7	7	7	0
	Greece	6	6	4	5	6	6	7	7	1
	Latvia			7	7	7	7	7	7	
	Lithuania			7	7	7	7	7	7	
	Netherlands	9	9	9	9	9	9	8	7	-2
	Portugal	8	7	8	7	7	7	7	7	-1
	Slovenia			7	7	7	7	7	7	
	Spain	8	8	7	7	7	7	7	7	-1
	United Kingdom	9	8	8	8	8	7	8	7	-2
23	Austria	7	6	6	6	6	6	6	6	
	Belgium	8	8	7	7	7	7	6	6	-2
	Chile		6	5	5	5	5	6	6	
	Czechia	6	6	6	6	6	6	6	6	0
	France	7	6	6	6	6	6	6	6	
	Iceland	9	9	8	7	6	6	6	6	-3
	Italy	7	7	7	7	7	7	7	6	-1
	Korea	5	5	5	5	5	5	6	6	1
31	Bulgaria			6	6	6	5	5	5	
	Israel			5	5	5	5	5	5	
	Japan	6	5	5	5	5	5	5	5	-1
	Malta			5	5	5	5	5	5	
	Mexico	5	5	5	5	5	4	5	5	0
	Poland	5	7	8	8	8	6	5	5	0
	Romania			5	5	5	5	5	5	
	Slovakia	6	4	5	5	5	5	5	5	-1
39	Croatia			5	5	5	5	5	4	
	Hungary	6	6	5	5	4	4	4	4	-2
	Turkey	3	3	4	5	5	4	4	4	1
	,		v		-	-				

Source: Sustainable Governance Indicators.

the beginning of 2011. The implementation of the Act on Equal Treatment largely rests with the Commissioner for Citizens' Rights (Rzecznik Praw Obywatelskich), which was originally established in 1987. This body's effectiveness has suffered as it has assumed more responsibilities, as the expansion has not included a corresponding increase in resources. Anti-discrimination policy has not featured prominently on the agenda of the PiS government. Quite to the contrary, the PiS government has engaged in strong anti-Muslim and anti-migrant rhetoric, and has spoken out against the LGBT community and "gender-ideology." The new legislation on the financing of NGOs will make it more difficult for NGOs that campaign against discrimination to access public money. In a number of cases, NGOs that focus on women's rights, domestic violence or asylum-seeker and refugee issues have already been denied funds." The government's discriminatory attitude toward asylum seekers is also evident in Poland's integration policies: "In many public speeches and on other occasions, PiS representatives denounced Muslim immigrants as potential terrorists, health risks and a threat to Polish culture and society. In 2017, the parliament amended the Act on Foreigners with a view to making the domestic institutional framework for dealing with immigrants harsher again. Asylum-seekers – 95% of whom come from Russia, Belarus and Ukraine - are held in guarded shelters until a decision on their applications is taken."102

The experts also note growing difficulties in the Netherlands' fight against discrimination. With its fifth-place ranking in the overall social inclusion and non-discrimination dimension, the country still numbers among the top performers. However, a deterioration with regard to combatting discrimination has been evident particularly in the last two years: "In terms of policy, the Dutch government does not pursue affirmative action to tackle inequality and facilitate non-discrimination. Generally, the government relies on 'soft law' measures as a preferred policy instrument to curb discrimination. There are more and more doubts about state policies' effectiveness. Depending on significant (international) events (e.g., Israeli-Palestinian conflicts, terrorist attacks and public debates about Black Pete) discriminatory actions, internet-based threats and insults targeting Jews, Muslims and Afro-Dutch citizens increase. Especially worrisome is the broad-based and well above European average negative climate of opinion and stereotyping of Muslims. A direct political consequence was the establishment in 2015 of a political party that appeals to second- and third-generation migrants, DENK (meaning 'think!' in Dutch, but 'equal in Turkish). DENK has secured three seats in the 150-seat Dutch parliament and a total of 23 seats in 13 different municipal councils. Growing awareness of employer's discriminating against young people with migrant backgrounds in job application processes forced new national and local government initiatives. According to recent survey research, the Dutch population is seriously worried about the intolerant and discriminatory dominant approach to diversity at present."103

In contrast to a general upward trend, the proportion of women serving in the national parliament has also fallen in the Netherlands; with women now holding just 36% of seats, this share has reached a new low since the first SJI 2009.

102 Matthes, Markowski and Bönker (2019), available at www.sgi-network.org. 103 Hoppe, Krouwel and Bandelow (2019), available at www.sgi-network.org. Equality between women and men is an important aspect of a successful anti-discrimination policy course. Greater representation of women in the legislature and in political decision-making circles is a proxy for the measurement of gender-equality progress. The share of women serving in a country's parliament can thus serve as an indication of the direction of equality-focused efforts. However, it says little about the actual degree of discrimination against women in the form of wage differentials or unequal career opportunities, or about women's access to other forms of leadership positions.

Overall, a slight upward trend can be seen with regard to gender equality in national parliaments, with 16 countries seeing a greater proportion of seats held by women in comparison to the year before. In this regard, Chile and Mexico have seen the greatest growth in women serving in roles of political decision-making responsibility. Mexico is currently the only country that has a law requiring total gender parity within the parliament. Showing the most balanced ratio within the SJI 2019's sample group, with women holding 48 of 100 seats, the country leads the rankings, and comes very close to meeting the legal requirements it put into place in 2014. Lacking a statutorily-enshrined ratio of women legislators, Sweden follows closely behind at second place, with women holding 46.1% of the country's parliamentary seats. The top group also includes Finland, Norway and France. Iceland, Slovenia and Germany have seen setbacks in this area, with the share of women holding legislative seats falling significantly by up to 9.5% in comparison to the SJI 2018. Women are particularly poorly represented in decision-making circles in Japan, Malta and Hungary, which hold the ranking's bottom positions. In each of these countries, women hold between 10% and 13% of the national parliamentary seats.

For its part, Norway has introduced active measures intended to promote women's equality in the labor market: "In 2017, several instances of gender-based discrimination were disclosed as a result of the #metoo campaign. On the other hand, affirmative action in favor of women has been used extensively in the labor market, particularly within the public sector. Even so, the labor market remains by international comparison strongly segregated by gender and occupation. Day-care services are widespread and heavily subsidized. To a large extent, the supply of child-care services is today adequate to meet parents' demand. In 2006, a law went into effect introducing affirmative action in the selection of board members for publicly listed companies. Under this regulation, at least 40% of board members must be women. This goal was achieved in two years with surprisingly little difficulty."<sup>104</sup>

Along with Ireland and Sweden, Norway serves as a flagship country with regard to non-discrimination. However, progress in the area of anti-discrimination is also evident in Germany, as noted by the country experts: "Germany's Basic Law (Art. 3 sec.3) states that every person, irrespective of parentage, sex, race, language, ethnic origin, disability, faith, religious belief or political conviction is equally important and has the same rights. The General Equal Treatment Act of 2006 added age and sexual orientation to that enumeration of protected categories. The Federal Anti-Discrimination Agency (FADA) monitors compli-

104 Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org.

### FIGURE 33 Gender Equality in Parliaments

Unit: Percent

Unit: Pe	rcent			s	ocial Jus	tice Inde	×			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Mexico	23.2	26.2	36.8	37.4	42.4	42.4	42.6	48.2	25.0
2	Sweden	47.0	45.0	44.7	44.7	43.6	43.6	43.6	46.1	-0.9
3	Finland	41.5	40.0	42.5	42.5	41.5	41.5	42.0	42.0	0.5
4	Norway	36.1	39.6	39.6	39.6	39.6	39.6	39.6	41.4	5.3
5	France	18.2	18.9	26.9	26.2	26.2	26.2	39.0	39.6	21.4
6	Spain	36.3	36.6	36.0	39.7	41.1	39.1	39.1	39.1	2.8
7	New Zealand	33.6	33.6	32.2	29.8	31.4	31.4	34.2	38.3	4.7
8	Iceland	33.3	42.9	39.7	39.7	41.3	47.6	47.6	38.1	4.8
9	Belgium	35.3	39.3	38.0	39.3	39.3	39.3	38.0	38.0	2.7
10	Denmark	38.0	38.0	39.1	39.1	37.4	37.4	37.4	37.4	-0.6
11	Netherlands	41.3	40.7	38.7	38.7	37.3	37.3	36.0	36.0	-5.3
12	Italy	21.3	21.3	31.4	31.4	31.0	31.0	31.0	35.7	14.4
13	Portugal	28.3	27.4	28.7	31.3	34.8	34.8	34.8	34.8	6.5
14	Austria	27.3	27.9	33.3	32.2	30.6	30.6	30.6	34.4	7.1
15	Switzerland	28.5	29.0	29.0	31.0	32.0	32.0	32.5	32.5	4.0
16	United Kingdom	19.5	22.0	22.5	22.6	29.4	29.6	32.0	32.2	12.7
17	Germany	32.2	32.8	36.5	36.5	36.5	36.5	37.0	30.7	-1.5
18	Australia	26.7	24.7	26.0	26.0	26.7	28.7	28.7	28.7	2.0
19	Luxembourg	23.3	20.0	23.3	28.3	28.3	28.3	28.3	28.3	5.0
20	Poland	20.2	20.0	23.7	24.3	27.4	27.4	28.0	28.0	7.8
21	Israel	14.2	19.2	22.5	22.5	26.7	26.7	27.5	27.5	13.3
22	Canada	22.1	22.1	24.7	25.1	26.0	26.0	26.3	27.0	4.9
23	Estonia	20.8	22.8	20.8	19.0	23.8	23.8	26.7	26.7	5.9
24	Slovenia	13.3	14.4	32.2	35.6	36.7	36.7	36.7	24.4	11.1
25	Bulgaria	21.7	20.8	24.6	20.0	20.4	20.4	23.8	23.8	2.1
26	Chile	15.0	14.2	14.2	15.8	15.8	15.8	15.8	22.6	7.6
27	Ireland	13.3	13.9	15.7	15.7	16.3	22.2	22.2	22.2	8.9
28	Czechia	15.5	22.0	19.5	19.5	20.0	20.0	20.0	22.0	6.5
29	Lithuania	17.7	19.1	24.1	24.1	23.4	21.3	21.3	21.3	3.6
30	Romania	11.4	11.4	13.3	13.5	13.7	13.7	20.7	20.7	9.3
31	Slovakia	19.3	15.3	18.7	18.7	18.7	20.0	20.0	20.0	0.7
32	United States	17.0	16.8	17.9	19.3	19.4	19.4	19.4	19.6	2.6
33	Greece	14.7	17.3	21.0	21.0	19.7	19.7	18.3	18.7	4.0
34	Croatia	20.9	23.5	23.8	23.8	15.2	12.6	18.5	18.5	-2.4
35	Cyprus	14.3	12.5	10.7	12.5	12.5	17.9	17.9	17.9	3.6
36	Turkey	9.1	9.1	14.4	14.4	14.9	14.9	14.6	17.4	8.3
37	Korea	13.7	14.7	15.7	16.3	16.3	17.0	17.0	17.0	3.3
38	Latvia	20.0	20.0	23.0	18.0	18.0	18.0	16.0	16.0	-4.0
39	Hungary	11.1	9.1	8.8	10.1	10.1	10.1	10.1	12.6	1.5
40	Malta	8.7	8.7	14.3	14.3	12.9	12.9	11.9	11.9	3.2
41	Japan	9.4	11.3	8.1	8.1	9.5	9.5	9.3	10.1	0.7
										0 5 10 15 20 25 30 35 40 45 50

Source: World Bank.

ance with legal anti-discrimination norms and principles, supports persons who have experienced discrimination, mediates settlements, informs the public about infringements, and commissions research on the subject of discrimination. Nevertheless, discrimination remains a problem in various spheres of society. For example, there is widespread agreement that women should be better represented in the business sector's upper management. In 2015, the government adopted legislation to increase the number of women on corporate supervisory boards. The law stipulates a 30% share of women on the boards of large companies. The Federal Constitutional Court decided in June 2013 that treating same-sex partnerships and opposite-sex marriages differently from a taxation perspective was unconstitutional. In June 2017 the Bundestag, with a large majority, went a decisive step further and opened the civil law marriage for same-sex couples which has overcome any remaining unequal treatment. In January 2015, the Federal Constitutional Court ruled that a bill banning headscarves for teachers at public schools must adhere to state laws (Ländergesetze). A general prohibition for teachers of expressing religious beliefs by outer appearance is not compatible with the freedom of faith and the freedom to profess a belief (Art. 4 secs. 1 and 2 of the Basic Law). However, in a dissenting opinion, two of the judges opposed the majority's reasoning, signaling that non-discrimination on religious grounds is a contested issue in society and in constitutional law. In November 2017, the Federal Constitutional Court requested that the government must accept a third sex thus avoiding discrimination of intersexual persons."

Furthermore a country's integration policies can be used to draw broader conclusions regarding its social inclusion. For example, Canada and Portugal's integration policies enable migrants to participate in social life to the greatest degree possible. Australia, Germany, Luxembourg, New Zealand and Norway also belong to this extended top group. In Canada's case, the country experts attribute the country's strength in large part to the central policy importance given to integration promotion despite traditionally high immigration figures: "Receiving around 250,000 immigrants per year, Canada has one of the highest annual immigration-to-population ratios in the world. Cultural, education and social policies, including language training and orientation courses, support the integration of immigrants. Canada also allows immigrants to become citizens after three years of residency, one of the shortest residency requirements in the world. The high educational attainment of immigrants, the highest in the world with around half of immigrants having university educations, also facilitates integration."<sup>105</sup> At the same time, the country experts identify hurdles facing migrants, especially with regard to labor-market integration: "Nevertheless, these policies do have weaknesses, as seen by the relatively poor labor market performance of recent immigrants and immigrants' high rate of return to their countries of origin. A CSLS study found that, in 2018, the hourly wage of immigrants to Canada with less than five years of residence averaged just 82% of the hourly wage of people born in Canada. However, this was up from 78 % in 2010 so progress is being made. The relative wage for university educated recent immigrants were even worse, 70% in 2018, but up from 65 % in 2010. The labor market integration of immigrants is impeded by a number of factors, including difficulties faced by immigrants in having their professional credentials recognized by Canadian authorities, the

# FIGURE 34 Integration Policy (SGI)

Unit: Standardized Scale

Rank	Country	2009	2011	2014	2015	tice Inde	2017	2018	2019	change to 2009
	Canada	9	9	8	9	9	9	9	9	0
	Portugal	9	8	7	7	8	8	8	9	0
3	Australia	9	9	8	8	8	8	8	8	-1
	Germany	6	6	8	8	7	7	7	8	2
	Luxembourg	8	9	8	8	8	8	8	8	0
	New Zealand	9	9	9	9	9	9	9	8	-1
	Norway	8	8	8	8	8	8	8	8	0
8	Denmark	7	7	7	7	6	6	7	7	0
	Estonia			7	7	7	7	7	7	
	Finland	7	7	8	8	7	7	7	7	0
	Ireland	7	7	7	7	7	7	7	7	0
	Lithuania			7	7	7	7	7	7	
	Netherlands	7	8	8	8	8	8	7	7	0
	Spain	7	6	6	6	7	7	6	7	0
	Sweden	7	7	7	7	7	6	7	7	0
	Switzerland	7	7	7	7	7	7	7	7	0
	Turkey	4	4	4	4	6	7	7	7	3
18	Belgium	7	6	6	6	6	6	6	6	-1
	Chile		4	4	4	4	5	6	6	
	France	6	6	6	6	6	6	6	6	0
	Iceland	6	6	6	6	6	6	6	6	0
	Romania			6	6	6	6	6	6	
	United Kingdom	8	8	7	7	7	6	6	6	-2
24	Austria	6	4	5	7	6	6	6	5	-1
	Greece	5	5	5	6	6	5	5	5	0
	Italy	5	4	5	5	6	6	6	5	0
	Korea	4	4	5	5	5	5	5	5	1
	Latvia			5	5	5	5	5	5	
	Slovenia			4	4	5	5	4	5	
	United States	9	8	7	7	7	6	5	5	-4
31	Cyprus			4	4	4	4	4	4	
	Czechia	5	5	5	5	4	4	4	4	-1
	Israel			6	6	5	5	4	4	
	Malta			3	3	3	4	4	4	
35	Bulgaria			4	3	3	3	3	3	
	Croatia			3	3	3	3	3	3	
	Hungary	5	5	5	5	4	3	3	3	-2
	Japan	4	4	4	4	3	3	3	3	-1
	Mexico	5	4	4	3	3	3	3	3	-2
	Poland	4	4	5	5	5	4	3	3	-1
	Slovakia	4	4	5	5	4	3	3	3	-1

Source: Sustainable Governance Indicators.

concentration of immigrants in a small number of major cities (e.g., Toronto, Vancouver and Montreal) and language barriers."<sup>106</sup>

Portugal too shows particular strengths with regard to integration policy: "In previous reports, we noted that Portugal has a welcoming policy framework for migrants. The country ranked second in the European Union in the 2015 Migrant Integration Policy Index (MIPEX) in terms of most favorable migrant-integration policies. While the MIPEX has not been updated, existing evidence suggests that this continues to be the case. The recent OSCE Good Practices in Migrant Integration: Trainee's Manual highlights a number of good practices in Portugal, notably in terms of the coordination of migrant integration; generating a more integrated framework across the national and local levels; providing language courses to migrants; and developing mentoring programs for migrants involving companies, municipalities and institutions. In April 2018, parliament approved several amendments to the naturalization laws. Overall, these changes make naturalization easier. For example, children of migrants gained the right to nationality at birth if one of the parents had been legally in the country at the time of birth for two years (down from five years previously). Furthermore, the amount of time necessary for naturalization of a legal migrant was reduced from six years to five years and children of illegal migrants born in Portugal can gain citizenship under certain fairly easy to achieve conditions. Portugal has sought to be a leader at the EU level with regard to refugees and migrants, advocating a liberal position. It has consistently shown a willingness to take in refugees and a government statement in June 2018 indicated that Portugal had received the sixth highest number of refugees as part of the EU resettlement program. Likewise, it was one of four countries that welcomed migrants from the Aquarius ship, which had been denied access to Italian ports in September 2018."107

By contrast, countries such as Hungary, Bulgaria, Poland, Slovakia and Croatia have had significantly greater problems in dealing with current integration-policy developments and challenges. Along with Japan and Mexico, they constitute the bottom group with regard to the question of effective integration policy. Restrictive immigration rules and xenophobic discourses, particularly against Muslim migrants, stand in the way of effective integration for migrants in these countries.

In their discussion of conditions in Bulgaria, the country experts note that the country "(..) does not have a developed policy for integrating migrants. According to estimates, the share of migrants in the total population amounts to less than 1%, with most migrants being people of traditional Bulgarian origin from neighboring countries. The influx of refugees in the wake of the Syrian crisis has demonstrated that accommodations for the migrants have been extremely poor; food, clothing and heating have been generally insufficient; and no real attempts have been undertaken to integrate migrants into the local society. The rhetoric of the junior coalition government partner, the United Patriots (an alliance of three nationalistic and xenophobic parties), has become increasingly anti-immigrant. Bulgaria's policy is focused on trying to prevent migrants from entering the country rather than improving the coordination of and mechanisms for

<sup>106</sup> Kessler, Sharpe and Thunert (2019), available at www.sgi-network.org. 107 Bruneau, Jalali and Colino (2019), available at www.sgi-network.org.

accommodating and integrating them. In fact, the country continues to pursue segregation in areas such as education, where language proficiency requirements prevent most refugee/migrant children from enrolling in school, and the presence of nationalists in the government has increased this tendency."<sup>108</sup>

The country experts describe a similar set of problematic circumstances in Hungary. "The Orbán government has fiercely refused the integration of non-Europeans and non-Christians as a lethal danger to Hungarian national culture and identity. The Orbán government's tough stance on refugees contrasts with the government's generous Hungarian Investment Immigration Program. In this framework, non-EU citizens can get Hungarian passports for investing in the country. So far, the government has collected €403 million from these residency bonds issued for twenty thousand persons, many of them from China and Russia. This business has been organized by the Antal Rogán, the head of prime minister's cabinet office, and managed by Fidesz close offshore companies accumulating a large amount of private profit from this business. Because of protest against this non-transparent scheme, the business was allegedly suspended, but still seems to be going on in some ways."<sup>109</sup>

In Italy too, conditions for migrants deteriorated dramatically under the Lega-M5S governing coalition, which has since fallen apart. "Policies dealing with the topic have concentrated more on controlling illegal immigration and temporarily hosting refugees than on integration. However, given the failure of measures designed to prevent illegal immigration, successive governments have adopted provisions for the large-scale regularization of immigrants, especially those working for and within families. In spite of these measures, a large number of immigrants are still involved in the black economy and are thus subject to economic exploitation, dangerous working conditions and a lack of respect for their rights. Some sectors of Italy's agriculture, for example, rely heavily on a workforce of low-paid illegal immigrants. In general, it is clear that in some sectors entrepreneurs and families are only able to operate due to the high number of migrants available to work. Agriculture, the building industry, private elderly care services, many child-care services and private cleaning services are dependent on legally or illegally employed immigrants. Access to citizenship for immigrants remains problematic. The discussion about the "ius soli" (i.e., granting Italian citizenship to children with a migrant background born in Italy) has been heated and legislative proposals remain blocked in parliament. [...] To address the influx of immigrants from Africa arriving in Italy by the dangerous Mediterranean Sea routes and prevent immigrants from drowning at sea, Italian governments have deployed significant naval forces in the Mediterranean Sea, which have been joined by NGO vessels. While international support for these operations has increased in recent years, the willingness of other EU countries to accept a redistribution of migrants has been minimal. The efforts of successive Italian governments to promote a common European policy to address the phenomenon have so far been ignored or opposed. The new government has changed dramatically the policy course in this area. In particular the Interior Minister Salvini has made the access to italian ports of ONG ships with refugees and immigrants significantly harder

and has stepped up the anti-immigration and xenophobic rethorics in some case also encouraging acts of violence against immigrants and foreigners."<sup>110</sup>

The United States has long been mired in the lower-middle ranks with regard to the overall issue of social inclusion and non-discrimination. However, in the last two years, the country's results have once again fallen significantly farther. The U.S. experts clearly attribute this to the change in government, which has had negative consequences for integration that have been felt particularly by illegal migrants and people of the Muslim faith. "A large fraction of the immigration to the United States has consisted of illegal immigrants, most of whom have crossed the border from Mexico and often have lived, worked and paid taxes in the United States for their entire adult lives without ever becoming legal residents. These illegal immigrants account for nearly one-third of the immigrant population, numbering 12 million to 15 million individuals or 3% to 4% of the country's overall population. They have in effect been tolerated (or even virtually invited by the ease of illegal entry) for their economic contributions, often as agricultural workers or in low-paying service occupations. Children of illegal immigrants attend public schools and businesses that employ illegal immigrants have not been subject to effective sanctions. There have been bipartisan efforts to enact major immigration reforms, with proposals that combined more effective control of illegal entry with legalization of many prior illegal entrants, for several decades; but such efforts have not succeeded. Events from 2016 to 2018 profoundly increased the insecurities faced by large categories of immigrants. President Trump's successful election campaign was based in large part on opposition to immigration, especially from Mexico, the Middle East, or other Muslim countries. Through 2017 and 2018, Trump has carried out a wide-ranging, aggressive attack on immigration—especially, but not only illegal immigration. Though his actions have often been overturned in federal courts, Trump has sought to ban otherwise legal entry from eight mostly Muslim-majority countries; sought to end the Deferred Action for Childhood Arrivals (DACA) program (which protects adults who were brought into the country illegally as children from deportation); declared his intention to abolish birthright citizenship (despite his lack of constitutional power to do so). Trump has insisted on his demands to build a wall on the Mexican border. In what has been an international human-rights scandal, his administration has separated more than 2000 children from their parents who had entered the country, most often legally, seeking asylum. Trump has also threatened to withdraw permanent resident status from immigrants who use public assistance. So far, most of these reform proposal have not been implemented or blocked by courts. Trump's xenophobic rhetoric and draconian, often illegal measures on immigration have been popular with his base—the roughly 40% of Americans who approve his performance—but have been opposed by majorities of Americans; and they apparently contributed to the Republican losses in the House of Representatives in the 2018 midterm elections. Nevertheless, the hostility toward immigration at the presidential level will undoubtedly affect educational and job opportunities and other support for integration of legal immigrants. Muslim, Latino, and other immigrant communities have experienced a massive increase in uncertainty about their status and acceptance. "111

<sup>110</sup> Cotta, Maruhn and Colino (2019), available at www.sgi-network.org. 111 Quirk, Lammert and Thunert (2018), available at www.sgi-network.org.

#### FIGURE 35 NEET rate

Unit: Percent

Unit. Pe				s	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	5.1	9.5	7.1	7.3	5.6	5.4	4.7	5.9	0.8
2	Netherlands	5.7	7.4	8.7	8.7	7.2	6.9	5.8	6.3	0.6
3	Switzerland	6.7	8.6	9.1	9.5	9.5	8.9	8.3	7.1	0.4
4	Norway	5.6	7.6	8.6	8.6	8.2	8.4	7.2	7.4	1.8
5	Malta	7.3	10.0	9.9	10.1	9.9	8.2	9.4	8.0	0.7
6	Luxembourg	10.0	7.2	7.4	10.2	8.8	9.0	9.2	8.3	-1.7
7	Germany	12.9	12.4	9.5	9.5	9.3	9.8	9.1	8.6	-4.3
8	Czechia	10.4	13.3	13.7	11.8	10.8	10.6	9.5	8.7	
8	Sweden	11.7	11.5	10.3	9.8	9.3	9.3	8.5	8.7	
10	Austria	9.2	9.6	9.4	9.6	9.8	9.8	8.6	8.8	-0.4
11	Denmark	6.2	8.5	8.7	8.4	9.3	8.5	10.0	9.5	3.3
12	Slovenia	8.7	9.8	13.7	13.8	14.0	11.8	9.2	9.9	1.2
13	Japan	11.1	12.4	11.1	10.1	10.1	10.1	10.1	10.1	1.0
14	Estonia	11.9	20.8	16.2	15.4	15.1	13.3	12.8	11.5	-0.4
15	Australia	10.7	11.2	13.9	13.3	13.1	12.0	11.6	11.9	1.2
16	Finland	10.5	13.3	13.1	14.6	15.7	14.6	13.6	12.1	1.6
17	New Zealand	14.1	17.8	15.6	14.5	14.9	13.1	13.3	12.4	-1.7
18	Lithuania	14.9	22.2	18.0	15.7	14.4	15.3	14.9	13.0	-1.9
19	Portugal	13.2	15.9	20.6	19.0	17.5	17.2	14.7	13.1	-0.1
20	Latvia	15.7	25.9	18.3	17.7	16.1	18.1	16.9	13.2	-2.5
21	Ireland	15.6	25.2	21.4	19.6	18.2	15.3	14.1	13.3	-2.3
22	Canada	13.3	15.6	13.9	14.8	14.4	14.9	13.2	13.4	0.1
23	Belgium	15.1	16.2	18.0	17.0	17.5	15.3	14.1	13.5	-1.6
24	Poland	14.9	17.2	19.4	18.8	17.6	16.8	15.4	14.0	-0.9
25	Slovakia	16.1	21.7	20.4	18.5	19.2	16.8	16.4	14.1	-2.0
26	United Kingdom	16.1	18.5	18.4	16.5	15.0	14.8	13.8	14.2	-1.9
27	Hungary	17.1	19.9	22.8	19.3	16.5	15.4	15.5	14.5	-2.6
28	United States	17.2	19.4	18.8	17.5	15.8	15.4	14.3	14.8	-2.4
29	Israel	37.5	37.4	18.1	18.6	18.6	18.0	17.3	17.0	-20.5
30	France	15.7	18.6	16.0	16.2	18.1	18.2	17.6	17.1	1.4
31	Spain	16.6	23.2	26.3	24.8	22.2	21.2	18.5	17.7	1.1
32	Bulgaria	21.6	26.0	26.3	24.8	24.0	22.7	18.6	18.2	-3.4
33	Croatia	13.7	20.3	27.2	26.1	23.8	19.6	20.0	18.3	4.6
34	Cyprus	13.3	16.2	28.4	25.2	22.2	22.6	22.0	18.4	5.1
35	Romania	13.8	22.0	22.9	23.1	24.1	23.6	21.0	19.9	6.1
36	Greece	15.8	21.4	31.3	28.4	26.1	23.0	22.0	20.7	4.9
37	Chile	27.5	27.5	21.1	21.1	20.7	20.7	21.8	21.8	-5.7
38	Korea	22.2	23.5	22.2	22.2	22.2	22.2	22.2	22.2	-0.0
39	Mexico	26.5	26.1	25.2	24.9	25.3	24.9	23.8	23.2	-3.3
40	Italy	21.6	25.9	31.9	32.0	31.1	29.1	27.9	27.1	5.5
41	Turkey	45.0	42.1	34.2	33.4	32.7	32.5	32.5	32.2	-12.8
										0 5 10 15 20 25 30 35 40 45

Source: Eurostat & OECD.

As a result of these restrictive measures in the United States, Mexico faces still greater challenges with regard to integration. The country experts for Mexico, traditionally regarded as a country of emigration, note in this regard that "Mexican integration policy remains weak to nonexistent. The dominant cultural narrative in Mexico tends to assume that migration means emigration. Mexico was and remains a major source of emigration, but has not effectively addressed problems related to immigration that have been steadily increasing during the last 15 to 20 years. There are serious problems related to migrants entering Mexico from Central America, with most seeking entry to the United States and a minority wanting to stay in Mexico. [...] The Mexican authorities mostly do not welcome this kind of immigration and do their best to discourage it. However, there is no effective integration, transit or migration policy to deal with these issues. Mexican authorities also downplay the incidence of criminal attacks on Central American immigrants, although the international media has cast a spotlight on this population's predicament. More efforts are also needed in the integration of young "returnees:" young Mexican nationals or children of Mexican nationals who come to Mexico after living in the United States, either voluntarily or through deportation. This issue becomes particularly relevant as the Trump administration decided to terminate DACA. Many of these students are not fluent in Spanish and have problems integrating into Mexican schools since they have studied under a different school system utilizing different teaching and evaluation methodologies. The Mexican education system is not ready to provide sufficient resources to improve these students' language skills and their sense of belonging. As the Trump administration tightens migration policies, Mexico can expect an increase in young returnees. It must be ready to successfully integrate them in the education system through specialized programs and resources."112

Finally, the risk of social exclusion experienced by young people is also important in assessing social inclusion and non-discrimination. The so-called NEET rate sheds light on this issue, as it measures the share of 20- to 24-year-olds who are not in education, employment or training. On a positive note here, a total of 28 of the 41 countries surveyed have seen a decline in their NEET rates as compared to the SJI 2018. However, conditions for young people in some countries remain quite fraught. Turkey, Italy, Mexico, Korea and Chile hold the bottom ranks in this area. By contrast, the NEET rate is under 10% in 12 countries, a group that includes Germany. In Germany 8,6% of young people are not in education, employment or training. With respective rates of 5.9% and 6.3%, Iceland and the Netherlands are the leaders here, despite slight deteriorations relative to the SJI 2018.



# 5. Intergenerational justice

The Nordic countries of Sweden, Denmark, Norway and Finland are the most pro-active when it comes to linking the concerns of younger generations with those of older generations. These countries owe their strong results in part to their willingness to invest in innovations and research on future technologies. They make it easier for parents to combine work with childcare and education while also aiming to minimize the negative impact of environmental degradation and climate change for future generations. The southern European states of Italy, Cyprus and Greece, by contrast, struggle considerably with integrating the interests of future generations into today's politics. In these countries, where the damage done by the economic crisis is still felt, future generations will have to bear the weight of heavy financial burdens through extremely high debt ratios and weak family and pension policies. Similarly sobering are the findings for the United States and Japan, both of which are making the effects of climate change worse for future generations with their short-sighted environmental and climate policies.

A look at the development of intergenerational justice shows that no great progress has been made in the last 10 years. Despite the urgent need to address issues such as demographic change, and although the pressure on younger generations is increasing rapidly due to climate change and growing financial burdens, the average score among all 41 EU and OECD countries for this dimension is stagnating. Thus far, none of the individual countries have taken any major steps forward in this regard. On the contrary, 24 countries registered a growing, though slight, intergenerational injustice compared to the previous year. However, there are persisting differences in terms of performance with regard to the various criteria of intergenerational justice.

For example, the success of the Nordic countries in the area of intergenerational justice is largely due to the fact that these countries take ambitious action with regard to environmental sustainability. Sweden's efforts to pass on a fair ecological legacy and an intact environment to future generations are by far the most notable. The country not only emits the second lowest level of greenhouse gases among the countries surveyed, but 53.3% of its energy needs are covered by renewable energy sources. According to the country experts, Sweden clearly owes its success here to the importance it affords environmental and climate protection in policymaking. "As is the case with global social injustice, Sweden tries to be a forerunner in environmental policy as well. Sweden performs extremely well in areas such as reduction of greenhouse gas emissions and the use of renewable energy sources but is not a leader in recycling or water usage. Thus, while there is strong political commitment among all the major political parties, the execution of that commitment in some aspects is still lagging. Meanwhile, Sweden continues to push environmental issues in international forums such as the EU and is a strong supporter of the Paris Agreement. Environmental policy made its way onto the political agenda in the 1970s and has remained a salient set of issues. With its legacy as a high-energy consuming industrial economy, Sweden certainly has a long way to go, but the data suggest its environmental policy is working. It should be noted that environmental policy is an integrated component of the larger project of restructuring the economy and making it more sustainable; much of this work takes place at the urban level."113

In Denmark, too, government efforts in recent years have brought about noticeable impact in the area of environmental sustainability. "Denmark has set rather ambitious goals including that energy production should be fossil free by 2050. Several sub-targets have been set to reach this goal. While the long-term goal is

### FIGURE 36 Intergenerational Justice

Unit: Score

				So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Sweden	7.62	7.65	7.48	7.43	7.59	7.55	7.59	7.59	-0.03
2	Denmark	6.34	6.36	6.61	6.72	6.81	6.75	6.82	6.92	0.58
3	Norway	6.46	6.65	6.88	6.89	6.80	6.73	6.82	6.87	0.41
4	Finland	6.96	7.01	6.88	6.85	6.81	6.77	6.69	6.56	-0.40
5	Estonia			6.94	6.76	6.71	6.64	6.67	6.49	
6	Iceland	5.89	5.72	6.13	6.16	5.97	6.16	6.30	6.43	0.55
7	Switzerland	5.71	5.97	6.10	6.25	6.26	6.28	6.34	6.37	0.66
8	New Zealand	6.53	6.33	6.17	6.18	6.09	6.07	6.11	6.22	-0.31
9	Israel			6.05	6.08	5.94	6.10	6.10	6.10	
10	Latvia			6.20	6.12	6.15	6.09	6.07	5.98	
11	Chile		6.54	6.09	6.08	6.08	6.05	5.95	5.88	
12	Lithuania			5.95	5.76	5.81	5.84	5.87	5.80	
13	Slovenia			6.00	6.00	5.97	5.89	5.87	5.79	
14	Czechia	5.73	5.64	5.77	5.88	5.82	5.85	5.82	5.78	0.05
15	Mexico	5.41	5.71	5.77	5.72	5.71	5.69	5.71	5.75	0.34
16	Korea	5.45	5.44	5.77	5.88	5.86	5.86	5.83	5.67	0.22
17	Austria	5.72	5.41	5.48	5.56	5.54	5.63	5.62	5.61	0.11
18	Turkey	5.54	5.67	5.69	5.69	5.69	5.69	5.64	5.60	0.06
19	Bulgaria			5.75	5.58	5.61	5.62	5.64	5.59	
20	France	5.78	5.56	5.51	5.47	5.55	5.52	5.45	5.57	0.22
21	Australia	5.91	5.99	5.83	5.62	5.55	5.50	5.48	5.54	-0.37
	EU/OECD Average	5.47	5.51	5.49	5.48	5.49	5.49	5.50	5.47	
22	Germany	5.45	5.35	5.39	5.27	5.39	5.52	5.57	5.46	0.01
23	Romania			5.55	5.43	5.41	5.40	5.41	5.36	
24	United Kingdom	5.32	5.37	5.36	5.30	5.22	5.24	5.27	5.28	-0.04
25	Canada	5.75	5.65	5.26	5.21	5.10	5.32	5.30	5.21	-0.55
26	Netherlands	6.10	5.75	5.22	5.18	5.15	5.15	5.11	5.14	-0.96
27	Croatia			5.23	5.22	5.17	5.12	5.13	5.14	
28	Luxembourg	4.97	5.26	4.67	4.71	4.79	4.88	4.93	5.05	0.08
29	Ireland	5.00	4.87	4.87	4.88	5.13	5.21	5.03	5.04	0.05
30	Hungary	5.18	5.40	5.18	5.21	5.23	5.16	5.12	4.99	-0.18
31	Poland	5.31	5.47	5.53	5.62	5.58	5.04	5.05	4.98	-0.33
32	Belgium	4.84	4.72	4.72	4.72	4.84	4.83	4.89	4.88	0.04
33	Spain	4.81	4.95	4.75	4.76	4.82	4.78	4.82	4.82	0.02
34	Portugal	5.09	5.18	4.76	4.70	4.80	4.87	4.83	4.75	-0.33
35	Slovakia	5.26	4.99	4.81	4.88	4.86	4.78	4.82	4.71	-0.55
36	Malta			4.34	4.51	4.53	4.69	4.77	4.71	
37	United States	4.67	4.86	4.81	4.73	4.58	4.54	4.38	4.37	-0.30
38	Japan	4.30	4.31	4.14	4.15	4.21	4.31	4.29	4.35	0.05
39	Cyprus			4.19	4.28	4.31	4.30	4.33	4.21	
40	Italy	3.83	3.96	3.82	3.86	3.91	4.08	4.07	3.95	0.12
41	Greece	3.11	3.10	3.49	3.61	3.70	3.75	3.81	3.81	0.70
										0 1 2 3 4 5 6 7 8 9 10

Source: Social Justice Index.

for Denmark to be independent of fossil fuels by 2050, the government has also called for green realism in environmental policy and there are signs that some environmental goals will be softened. In June 2018, all parties in the Folketing approved an energy agreement, which aims to have 100% of Danish electricity produced by renewable sources by 2030. Concretely, three large offshore windfarms are planned. Taxes on electricity will be reduced for various purposes. Money will also be budgeted for green transport, meaning more electric cars."<sup>114</sup> Even though the share of renewable energies is only at 33.2% and much still needs to be done in order to achieve the targets set by the Danish energy agreement, Denmark is clearly headed in the right direction. The same is true with regard to greenhouse gas emissions, which have been steadily reduced, but still amount to 8.54 metric tons per capita, which puts Denmark at a middling rank (20) in terms of greenhouse gas emissions.

Significant and ongoing reductions in greenhouse gases, as observed in Denmark, Norway and Finland remain an exception to the rule. Throughout the crisis years, emissions in most countries fell significantly, but this trend ended in 2015. In fact, the SJI 2019 shows that 19 of the 41 countries surveyed emitted more greenhouse gases than they did the year previous. These observations are consistent with the findings of the latest UN Environment's Emissions Gap Report, which shows that greenhouse gas emissions trends are moving in the wrong direction, that is, the gap between anticipated levels in 2030 and those consistent with the 2°/1.5° target is widening.<sup>115</sup> Among the countries with rising emissions is Estonia, which is ranked 5<sup>th</sup> in the overall dimension of intergenerational equity, but demonstrates less ambition when it comes to environmental sustainability, it seems. In Estonia, greenhouse gas emissions have risen markedly by a near 2 metric tons per capita (15.85 metric tons per capita) in the last three years alone. Environmentally harmful gas emissions have also risen steeply in Malta - from 4,16 to 4.6 metric tons per capita in the previous year – a development which is likely to threaten its position as a leading country in terms of greenhouse gas emissions. Even the largest climate culprits of Australia, the United States, Canada, Luxembourg and New Zealand have done little in recent years to bring down their greenhouse gas emission levels. Emitting anywhere from 20 (USA and Canada) to 22.52 metric tons per capita (Australia), these countries are major contributors to global warming. And despite the fact that these figures boldly underscore the urgent need to take ambitious measures, these countries have so far largely failed to set vigorous national targets, as the experts point out: "Australia's economy is based to a considerable extent on the exploitation of natural resources and on a resource-intense mode of agricultural production and exportation. Therefore, the trade-off between environmental concerns and economic growth is a topic of great public debate. Environmental policy in Australia has focused very much in recent years on climate change and water security. Some progress has been made on water security in recent years, including the construction of desalination plants and the creation of the Murray-Darling Basin water management plan. However, energy consumption is generally high and, despite great potential for solar and wind energy, the contribution of renewable energy to the grid remains relatively low. Australia's infrastructure continues to be stretched thin, a fact contributing

<sup>114</sup> Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

<sup>115</sup> See UNEP (2018), The Emissions Gap Report 2018.

### FIGURE 37 Greenhouse Gas Emissions, Per Capita

Unit: Metric Tons in  $\mathrm{CO}_2$  Equivalents Per Capita

Jnit: Me	etric Tons in CO <sub>2</sub> Equ	uivalents	Per Capi		Social Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Malta	7.54	6.98	7.59	6.71	6.62	4.92	4.16	4.60	-2.94
2	Sweden	7.10	6.27	5.97	5.77	5.55	5.46	5.34	5.24	-1.86
3	Switzerland	6.94	6.79	6.43	6.46	5.91	5.77	5.75	5.58	-1.36
4	Mexico	5.81	5.85	5.62	5.63	5.57	5.60	5.60	5.60	-0.21
5	Romania	7.33	6.36	6.28	5.82	5.84	5.88	5.80	5.81	-1.52
6	Latvia	5.61	5.22	5.57	5.59	5.60	5.69	5.75	5.82	0.21
7	Croatia	7.38	6.62	6.07	5.77	5.61	5.77	5.84	6.07	-1.31
8	Chile	5.64	5.36	6.13	6.25	6.25	6.25	6.25	6.25	0.61
9	Turkey	5.63	5.55	5.99	5.78	5.93	6.01	6.24	6.49	0.86
10	Hungary	7.20	6.44	6.01	5.74	5.82	6.17	6.23	6.52	-0.68
11	Portugal	7.45	6.91	6.23	6.09	6.13	6.54	6.39	6.85	-0.60
12	France	8.39	7.89	7.48	7.44	6.96	7.00	6.99	7.04	-1.35
13	Italy	9.59	8.40	7.94	7.35	7.01	7.15	7.13	7.07	-2.52
14	United Kingdom	11.03	9.63	9.16	8.89	8.19	7.86	7.42	7.18	
15	Lithuania	7.83	6.29	7.11	6.74	6.79	6.96	7.04	7.22	-0.61
16	Spain	9.84	8.03	7.50	6.94	7.02	7.27	7.02	7.30	-2.54
17	Cyprus	9.29	8.90	7.54	6.86	7.13	7.15	7.47	7.58	-1.71
18	Slovakia	9.16	8.43	7.96	7.89	7.50	7.68	7.76	7.96	-1.20
19	Slovenia	10.33	9.61	9.27	8.91	8.06	8.15	8.56	8.45	-1.88
20	Denmark	12.87	11.57	9.72	9.98	9.19	8.67	8.96	8.54	-4.33
21	Bulgaria	9.06	7.79	8.32	7.64	8.10	8.60	8.29	8.67	-0.39
22	Greece	12.22	11.21	10.15	9.35	9.10	8.81	8.51	8.87	
23	Austria	10.54	9.63	9.47	9.48	8.97	9.13	9.11	9.35	1.19
24	Israel	10.74	9.99	10.78	9.84	9.41	9.59	9.59	9.59	-1.15
25	Norway	12.11	11.01	10.78	10.63	10.54	10.49	10.24	9.99	-2.12
26	Finland	15.03	12.70	11.53	11.56	10.75	10.06	10.56	10.05	-4.98
27	Belgium	13.08	11.69	10.75	10.69	10.13	10.39	10.22	10.07	
28	Japan	10.89	9.75	10.94	11.05	10.69	10.39	10.28	10.17	-0.72
29	Poland	10.98	10.31	10.60	10.51		10.28		10.90	-0.08
30	Germany	11.84	11.09	11.50			11.11	11.06	10.97	-0.87
31	Netherlands	12.68	12.18	11.66				11.47		-1.40
32	Czechia				12.24					-2.45
33	Ireland	15.46	13.57	12.53	12.42	12.26	12.59	12.88	12.64	-2.82
34	Korea	11.89			13.79		13.53		13.53	1.64
35	Iceland				14.20				13.85	-1.73
36	Estonia		12.56		16.65				15.85	0.73
37	New Zealand			18.39		18.03	17.67		16.87	-2.38
38	Luxembourg	25.56		22.19		19.39	18.07		17.16	-8.40
39	Canada		20.27		20.58		20.22		19.59	-3.02
40	United States	24.47	21.87		21.23			20.10	19.86	
41	Australia				22.93				22.52	
_				-	-					0 5 10 15 20 25 30

Source: UNFCCC & OECD.

to rising carbon emissions. Public transport in Australian cities is less developed than in comparable European or Asian cities. Investment in infrastructure has been deficient, and must become a key component in Australia's environmental policy over coming decades. Biodiversity decline is also a significant concern in Australia, with considerable evidence of an acceleration in decline over recent decades. In response to this concern, in October 2010 the Australian government released "Australia's Biodiversity Conservation Strategy 2010 – 2030," which provides the guiding framework for conserving Australia's biodiversity over that period. Various policies to address the decline in biodiversity have been implemented, though more action is required." <sup>116</sup>.

Iceland stands out in terms of its performance in the area of environmental sustainability. It features the largest share of renewable energy, which accounts for 77% of the total energy demand. This makes it the absolute leader in terms of generating energy from sustainable sources - as it continues to show an upward trend – and clearly outpaces second-ranked Norway (57.85%). At the same time, greenhouse gas emissions in the country are extremely high at 13.85 metric tons per capita. But as our Iceland experts note, the government is targeting measures to bring about a solution: "In September 2018, the Icelandic Government announced a new Climate Strategy, intended to boost efforts to cut net greenhouse gas emissions. The new measures aim to help Iceland meet its Paris Agreement targets for 2030 and reach the government's ambitious goal to make Iceland carbon neutral before 2040. The main emphasis of the new plan is on two measures: to phase out fossil fuels in transport; and to increase carbon sequestration through afforestation, revegetation and restoration of wetlands. Climate mitigation measures will receive a substantial increase in funding, almost ISK 7 billion, between 2019 and 2023. A general carbon tax, already in place, will be gradually increased. So, even though environmental policy has historically not been a high priority on Iceland's political agenda, it seems to be gaining ground."117

Overall, we observe in many countries an increase in the use of renewable energies. Nevertheless, only three countries derive more than half of their total energy consumption from renewable sources. The share of renewable energies in more than a quarter of the countries surveyed is still below 10%. These include Israel and Korea, which reach only 3.7% and 2.7%, respectively. However, according to the country experts, a rethinking seems to be under way in Israel as well. "Israel faces significant environmental challenges due to its small territory, high population growth and poor natural water resources. Its geopolitical climate adds another challenge, since unlike many OECD countries, Israel's relationship with its neighboring countries prevents it from sharing power facilities and thereby reducing environmental costs. Security and political considerations also overshadow environmental issues, resulting in long-term neglect of environmental policy even as OECD accession has bound Israel to conform with Western standards and goals. However, Israel has demonstrated significant recent advances with regard to environmental policy. At the end of 2016, the country ratified the Paris climate agreement. Earlier that year, the governmental approved an ILS 500 million national program aimed at reducing greenhouse gas (GHG) emissions and

<sup>116</sup> Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org. 117 Eythórsson, Gylfason and Jahn (2019), available atwww.sgi-network.org.

### FIGURE 38 Renewable Energy Consumption

Unit: Percentage of Total Final Energy Consumption
Social Justice Index

				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	62.5	66.8	75.4	76.5	77.3	76.2	76.3	77.0	14.6
2	Norway	58.6	57.4	56.4	56.5	58.3	57.7	57.2	57.8	-0.8
3	Sweden	40.0	42.9	46.0	46.5	50.0	48.8	49.7	53.3	13.3
4	Finland	31.5	31.8	33.6	35.3	38.8	38.5	41.2	43.2	11.7
5	Latvia	36.3	33.1	33.1	35.5	40.4	39.6	40.2	38.1	1.8
6	Austria	24.2	28.6	30.7	31.0	33.4	34.7	35.4	34.4	10.2
7	Denmark	16.1	17.7	21.4	23.9	27.3	27.3	30.3	33.2	17.0
8	Croatia	26.8	22.7	29.8	27.2	29.4	32.8	33.7	33.1	6.3
9	New Zealand	29.3	29.1	31.3	32.1	30.5	30.0	30.3	30.8	1.5
10	Lithuania	17.5	17.1	21.5	22.7	23.9	26.3	27.7	29.0	11.5
11	Estonia	18.9	18.6	25.1	25.0	24.9	24.5	25.3	27.5	8.6
12	Portugal	18.1	23.2	27.8	27.2	25.5	30.2	30.5	27.2	9.1
13	Switzerland	19.3	19.9	21.5	21.6	23.0	23.0	23.4	25.3	6.0
14	Chile	32.3	30.5	27.0	28.8	30.3	30.2	26.7	24.9	-7.4
15	Romania	18.5	18.2	24.1	21.1	21.6	23.1	24.3	23.7	5.2
16	Canada	22.3	22.1	22.1	22.0	22.6	22.4	22.0	22.0	-0.2
17	Slovenia	14.6	14.1	19.5	18.6	19.7	22.0	22.3	20.9	6.3
18	Bulgaria	9.9	8.9	14.4	13.3	15.8	18.2	17.0	17.7	7.8
19	Greece	7.7	7.9	11.1	11.1	13.9	16.3	16.1	17.2	9.5
20	Italy	6.7	8.7	12.8	11.9	14.4	16.3	17.1	16.5	9.8
21	Spain	7.3	9.0	14.4	14.8	15.8	17.0	17.4	16.3	9.0
22	Hungary	4.7	6.1	13.5	14.7	16.5	17.2	15.7	15.6	10.9
23	Czechia	7.5	8.3	10.9	12.1	12.8	13.9	14.8	14.8	7.3
24	Germany	6.8	9.4	10.3	11.4	12.0	12.1	13.4	14.2	7.5
25	France	8.6	9.3	11.9	10.9	12.4	13.5	13.4	13.5	4.9
26	Slovakia	6.3	8.2	10.3	10.4	10.5	10.7	12.2	13.4	7.1
27	Turkey	15.3	12.5	14.3	12.8	12.8	13.9	11.6	13.4	1.9
28	Poland	7.2	7.3	9.5	10.4	10.9	11.4	11.6	11.9	4.7
29	Cyprus	3.4	4.4	6.4	7.4	8.3	9.5	9.4	9.9	6.6
30	Mexico	10.3	9.5	9.4	9.1	9.0	9.2	9.8	9.2	-1.1
31	Belgium	2.5	3.3	5.8	6.6	7.8	8.1	9.1	9.2	6.7
32	Australia	6.7	7.0	8.1	8.3	8.3	9.1	9.3	9.2	2.5
33	Ireland	2.9	3.6	5.3	6.7	6.6	7.4	8.5	9.1	6.2
34	Luxembourg	1.9	3.6	3.7	3.7	4.2	5.7	6.9	9.0	7.1
35	United States	5.8	6.3	7.5	8.2	8.5	8.7	8.8	8.7	2.9
36	United Kingdom	1.4	1.8	3.6	4.4	4.8	6.0	7.4	8.7	7.4
37	Japan	3.7	3.8	4.6	4.7	4.5	4.9	5.6	6.3	2.7
38	Netherlands	2.8	3.7	3.9	4.7	5.0	5.0	5.7	5.9	3.1
39	Malta	0.2	0.3	1.4	2.0	2.6	2.6	3.9	5.4	5.2
40	Israel	7.0	6.7	8.5	9.0	2.7	3.3	3.7	3.7	-3.3
41	Korea	0.9	1.0	1.3	1.4	1.6	1.9	2.8	2.7	1.8
										0 10 20 30 40 50 60 70 80

Source: World Bank.

increasing energy efficiency; as a part of this policy, it has committed to reducing its GHG emissions by 26% from the 2005 emissions level. An additional ILS 260 million has been allocated to a two-year program focused on reducing air pollution. A reduction in emissions intensity was reported In 2017, indicating some early success for the policy effort. In addition, a new solar-power station, one of the largest in the world, was launched in 2017 in the Negev desert. Israel also has a unique green-tax policy, created to encourage customers to purchase less pollution-intensive cars. This innovative policy has led to positive results, and is regarded as a model within the OECD."<sup>118</sup>

We see a different situation in South Korea, where "Environmental policies remain insufficient either to protect the environment or to ensure sustainable resource use. Moreover, Korea has been losing ground to the front runners in the transition to becoming a carbon-neutral and ecologically sustainable country. Environmental problems are very serious, particularly with regard to air quality and greenhouse-gas emissions. [...] While Moon Jae-in originally pledged to phase out coal and nuclear energy, he later backed away from some of the more ambitious timelines. Environmental topics are gaining importance in the society, but the government clearly prioritizes economic growth over environmental concerns."<sup>119</sup>

The short-sighted nature of South Korea's environmental and climate policies is also reflected in the country's ecological footprint. With a negative footprint of -5.3 global hectares per person, South Korea clearly shows an ecological deficit, which means that its area of biologically productive land and water is far from sufficient to produce the goods consumed. The majority of countries have an ecological footprint that is greater than their available resources. Only eight of the 41 countries surveyed, including Canada, Finland and Australia, feature a biocapacity that is sufficient to offset their individual footprints. As ecological debtors, the remaining countries pass on the negative impact of their consumer behavior to future generations and to the global South. These countries require far more biomass for their residents' consumption than they can cultivate on their own territory. The ecological deficit is particularly large in Luxembourg, Belgium, Malta and Israel, but the United States also performs poorly here with a negative footprint of -4.5 global hectares per person. While our experts increasingly report that environmental concerns are drawing more and more attention, in the United States, the issue has been placed at the bottom of the priority list since the change in leadership. "The Trump administration has been a rapidly escalating disaster for environmental policy. Trump has embraced an extreme version of climate-change denial and withdrawn from the Paris Climate Agreement. Although some of the more liberal states will continue to seek reductions in carbon emissions, no national action can be expected during Trump's presidency. Indeed, Trump has promised to rejuvenate the coal-mining industry, an economic absurdity. He appears to want to reverse any action that was taken by the Obama administration - for no other reason than that. Meanwhile, Trump has appointed hardliner opponents of environmental regulation from industry to top environmental positions. His EPA has ordered the cancellation of numerous Obama-era environmental regulations - actions that have generally been undertaken without

# FIGURE 39 Ecological Footprint, Per Capita

Unit: Global Hectare Per Capita

	<b>c</b>	0000	0011		ocial Jus			0010	0010	
lank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Canada	7.59	7.79	7.08	7.18	7.13	7.45	7.41	7.38	
2	Finland	6.24	5.93	6.86	7.12	6.65	6.86	6.86	6.37	0.14
3	Australia	6.60	5.09	5.17	5.94	5.84	6.55	6.01	5.63	
4	New Zealand	4.95	4.71	4.08	4.74	4.71	4.40	4.27	4.59	-0.36
5	Sweden	4.90	4.06	3.29	3.60	3.63	3.24	3.57	3.09	-1.81
6	Estonia	0.90	2.57	3.42	2.46	3.33	2.88	2.96	2.46	1.56
7	Latvia	0.92	2.31	2.16	2.63	2.28	2.04	2.30	2.14	1.22
8	Norway	1.74	1.02	1.32	1.47	1.25	1.32	1.49	1.76	0.02
9	Bulgaria	-1.62	-1.60	-0.52	-0.54	0.01	-0.01	-0.31	-0.18	1.44 -
10	Romania	-0.89	-1.01	-0.45	-0.54	-0.03	0.04	-0.27	-0.22	0.66 ⊣
11	Lithuania	-1.60	-1.22	-1.10	-0.57	-0.44	-0.67	-0.12	-0.38	1.22 -
12	Croatia	-1.67	-1.75	-1.19	-1.11	-0.81	-0.63	-0.78	-0.75	0.91 -
13	Chile	-0.12	-0.35	-0.70	-0.73	-0.72	-0.50	-0.78	-0.76	-0.64
14	Hungary	-1.63	-1.40	-1.13	-0.79	-0.85	-0.93	-1.01	-1.15	0.49 -
15	Slovakia	-1.79	-2.53	-2.36	-1.56	-1.70	-1.32	-1.43	-1.21	0.58 -
16	Mexico	-1.66	-1.80	-1.56	-1.72	-1.46	-1.37	-1.40	-1.43	0.23
17	Ireland	-2.91	-2.55	-1.38	-1.56	-1.67	-1.59	-1.77	-1.75	1.16 -
18	Turkey	-1.45	-1.64	-1.84	-1.86	-1.75	-1.82	-1.84	-1.92	-0.47
19	France	-2.75	-2.87	-2.41	-2.28	-2.22	-2.05	-1.98	-2.07	0.68 -
20	Poland	-2.68	-2.91	-2.84	-2.52	-2.38	-2.31	-2.22	-2.44	0.24
21	Denmark	-3.89	-3.71	-2.80	-2.51	-2.70	-2.69	-2.78	-2.63	1.26
22	Spain	-4.48	-4.13	-2.83	-2.62	-2.47	-2.45	-2.66	-2.67	1.81
23	Greece	-4.61	-4.38	-3.30	-2.84	-2.68	-2.73	-2.70	-2.71	1.90
24	Portugal	-3.33	-3.22	-2.80	-2.50	-2.42	-2.47	-2.70	-2.84	0.49
25	Slovenia	-3.37	-3.45	-2.84	-2.46	-2.42	-2.39	-2.68	-2.89	0.48
26	Czechia	-3.97	-3.84	-3.56	-3.03	-3.04	-2.94	-2.99	-2.99	0.98 -
27	Austria	-3.54	-3.44	-3.48	-3.17	-3.27	-3.06	-3.13	-3.12	0.42
28	Germany	-3.76	-3.60	-3.70	-3.46	-3.46	-3.27	-3.26	-3.22	0.54
29	United Kingdom	-4.96	-4.67	-3.81	-3.75	-3.79	-3.53	-3.42	-3.28	1.68
30	Cyprus	-5.13	-5.42	-4.34	-3.72	-3.01	-3.17	-3.17	-3.47	1.66
31	Italy	-4.82	-4.37	-4.17	-3.66	-3.49	-3.46	-3.50	-3.49	1.32
32	Switzerland	-4.48	-4.68	-4.29	-4.02	-4.10	-3.79	-3.70	-3.63	0.85
	Japan	-4.39	-4.22	-4.15	-4.17	-4.20	-4.10	-3.86	-3.91	0.48
34	Netherlands	-6.20	-6.28	-5.53	-5.77	-5.20	-5.27	-4.87	-4.01	2.19
35	Iceland	-16.43		-4.84	-4.26	-4.26	-4.26	-4.26		12.17
36	United States	-6.52	-5.73	-4.99	-4.64	-4.81	-4.73	-4.60	-4.46	2.06
37	Israel	-5.52	-5.21	-5.71	-5.93	-5.36	-4.44	-5.49	-4.62	0.89
38	Malta	-6.01	-6.10	-4.72	-4.77	-4.40	-4.61	-4.60	-4.02	0.82
39	Korea	-4.93	-5.04	-5.27	-5.18	-5.15	-5.06	-5.19	-5.33	
40	Belgium	-6.94	-6.70	-6.04	-6.33	-6.22	-5.98	-5.47	-5.47	1.48
41	Luxembourg	-13.62	-13.82	-13.//	-12.54	-12.11	-11.36	-11.46	-11.67	1.94

Bertelsmann Stiftung

Source: Global Footprint Network & IMD.

benefit of serious analysis and may, in many cases, eventually be struck down by the courts. It has decimated the EPA's scientific and expert staff. In addition, the EPA under Trump is unlikely to enforce many regulations that remain on the books. Aggressive oversight by the new Democratic House of Representatives in 2019–2020 may curtail what has been a virtual abandonment of environmental regulation at the federal level.<sup>(120</sup>

Intergenerational justice is a complex issue of great relevance in aging societies because of the increasing risk of poverty among the elderly and growing financial insecurity for young and future generations. Declining birth rates and increases in life expectancy are resulting in an increase in the average age of population which, in turn, places growing demands on social security schemes such as the old age pension. A sustainable pension policy is just as crucial to the future viability of a state as is a strong family policy. As the old-age dependency ratio shows, the oldest countries demographically speaking are Japan, Italy, Finland, Portugal and Germany. With a ratio of 46 people of retirement age to 100 of working age, Japan's aging population and thus the pressure this places on young people is particularly high. Mexico has the lowest ratio with 10.6%, which is similar to the ratios for Turkey and Chile, and can be attributed to the relatively high fertility rates in these countries. Despite the comparatively low demographic pressure, the country experts for Mexico point out, that the country's pension scheme must be reformed in order to guarantee a social safety net for both current and future generations. "Mexico is in a relatively advantageous position to introduce reform in that its birth rate peaked in the 1970s, which has led to a reduction in children's demands on the public sector. At the other end of the demographic balance, Mexico still has a relatively low proportion of old people. As a result, Mexico's dependent population is fairly small, indicating that a window for reform will open up in the coming years. As this comparatively privileged position will eventually change for the worse, the pressure to reform soon will increase. Conscious of this dynamic, Mexican governments have been continuously attempting to reform the pension system to increase coverage and quality. Due to a political blockade in the Senate such previous efforts have so far not been rewarded. While improving, the current system is not robust enough to cope with the growing population of elderly people."121

The situation is different in Italy, which continues to grapple with the effects of the economic crisis. Italy, with 36.9 pensioners per 100 economically active individuals, is already subject to relatively strong demographic pressures. Although necessary reforms were introduced quite a while ago, the country's pension scheme faces major challenges resulting from lower levels of contributions being made to the social security system, which have been triggered by high unemployment rates. "Following the 2011 Fornero reform of Italy's pension policy, which increased the retirement age to 67 years, reduced benefit levels for higher income groups and linked the age of retirement to rising life expectancy, the pension system achieved a satisfactory level of sustainability. Thanks to this reform, no further major reforms of the retirement system would have been needed, at least in the next few years, to ensure its sustainability – despite the demographic imbalance between

<sup>120</sup> Quirk, Lammert and Thunert (2019), available at www.sgi-network.org. 121 Muno, Faust and Thunert (2019), available at www.sgi-network.org.

# FIGURE 40 Age Dependency

Unit: Percent of Working-age Population

Unit: Percent of Working-age Population Social Justice Index										
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Mexico	9.0	9.2	9.5	9.6	9.8	10.1	10.3	10.6	1.7
2	Turkey	10.7	11.0	11.3	11.5	11.7	11.9	12.2	12.5	1.8
3	Chile	13.0	13.5	14.4	14.7	15.2	15.6	16.2	16.7	3.8
4	Cyprus	15.8	16.1	17.3	17.8	18.3	18.8	19.2	19.7	3.9
5	Israel	16.3	16.8	17.6	18.0	18.4	18.9	19.4	19.9	3.7
6	Korea	13.6	14.6	16.4	17.0	17.7	18.4	19.2	20.0	6.3
7	Luxembourg	20.8	20.5	20.2	20.1	20.1	20.4	20.7	21.0	0.2
8	Ireland	15.9	16.4	18.7	19.5	20.3	21.0	21.6	22.2	6.4
9	Slovakia	16.8	17.2	18.6	19.2	19.9	20.7	21.7	22.7	5.9
10	Iceland	17.7	17.9	19.4	20.1	20.8	21.4	22.0	22.7	5.0
11	United States	18.8	19.4	20.9	21.5	22.1	22.8	23.5	24.2	5.4
12	Australia	19.4	19.9	21.5	22.1	22.6	23.2	23.7	24.2	4.8
13	New Zealand	18.9	19.6	21.2	21.8	22.4	23.0	23.6	24.2	5.3
14	Poland	18.6	18.9	20.7	21.6	22.5	23.5	24.5	25.6	7.0
15	Norway	22.3	22.5	23.8	24.4	24.8	25.3	25.7	26.1	3.8
16	Canada	19.7	20.5	22.3	23.0	23.8	24.6	25.4	26.2	6.5
17	Romania	22.6	22.9	24.0	24.6	25.2	25.9	26.7	27.5	4.9
18	Switzerland	24.1	24.8	26.0	26.4	26.8	27.2	27.6	28.0	4.0
19	Hungary	23.2	23.3	24.5	25.0	25.7	26.6	27.7	28.8	5.6
20	Lithuania	24.9	25.4	26.9	27.4	28.0	28.4	28.7	29.1	4.2
21	Austria	25.4	26.4	27.5	27.8	28.1	28.5	28.8	29.1	3.7
22	Belgium	26.3	26.4	27.3	27.6	28.0	28.4	28.9	29.3	3.0
23	United Kingdom	24.6	25.2	27.0	27.6	28.2	28.7	29.0	29.4	4.7
24	Netherlands	21.9	23.0	25.7	26.6	27.4	28.2	29.0	29.7	7.7
25	Czechia	20.8	22.0	24.8	25.9	26.9	28.0	29.0	30.0	9.2
26	Spain	24.7	25.2	27.1	27.8	28.5	29.0	29.5	30.0	5.3
27	Slovenia	23.3	24.1	25.4	26.0	26.8	27.8	28.9	30.1	6.9
28	Malta	20.8	22.5	25.2	26.3	27.3	28.4	29.4	30.2	9.4
29	Croatia	25.9	26.2	27.4	27.9	28.5	29.3	30.1	30.9	5.0
30	Estonia	25.5	26.0	27.7	28.3	28.9	29.6	30.3	31.0	5.5
31	Latvia	26.1	26.8	28.4	28.9	29.4	29.9	30.5	31.0	4.7
32	Denmark	24.3	25.5	27.9	28.8	29.7	30.4	30.8	31.1	6.8
33	Greece	27.1	27.5	29.2	29.8	30.5	30.8	31.2	31.5	4.5
34	Sweden	27.1	27.9	29.8	30.5	31.1	31.6	32.0	32.3	5.1
35	France	25.4	26.0	28.3	29.3	30.2	31.0	31.7	32.4	7.0
36	Bulgaria	25.7	26.4	28.8	29.7	30.5	31.3	32.0	32.7	7.0
37	Germany	30.3	31.2	31.7	31.9	32.1	32.4	32.8	33.2	3.0
38	Portugal	27.0	28.2	30.3	31.0	31.8	32.5	33.2	33.8	6.8
39	Finland	24.8	26.0	29.5	30.8	32.0	33.1	34.0	34.9	10.1
40	Italy	30.5	31.3	33.4	34.2	35.0	35.7	36.3	36.9	6.4
41	Japan	32.6	35.1	39.6	41.2	42.7	43.9	45.0	46.0	13.5
										0 4 8 12 16 20 24 28 32 36 40 44 48

Source: World Bank.

the aged and the young. The current situation, however, is less positive from the point of view of intergenerational fairness, as the younger generations will receive significantly smaller amounts upon retirement. This problem is exacerbated by the late or uncertain entry into the labor force of younger cohorts, which itself is a consequence of the economic crisis. In addition, the growing number of permanently unemployed also face receiving little to nothing in terms of a pension. The high percentage of public spending on pensions also diverts financial resources from other welfare policies (e.g., family policy). Ensuring pensions comes with high costs for the rest of society. The problem of poverty prevention, which exists today for an already significant share of the population, will be even more relevant for today's younger cohorts when they reach retirement age."<sup>122</sup>

Croatia, Hungary, Greece, Latvia and Romania are the worst performers with regard to sustainable and intergenerational pension policies. The pressure for reform is particularly high in Greece, where younger generations are already feeling the crushing burden of debt. "The prospects of the Greek pension system are not good, as the country has one of the worst old-age dependency ratios among all OECD countries. Further, nearly one-third of the value of pension funds was lost, following 2009 due to surging unemployment and a fall in contributions. The pay-as-you-go system, according to which the working population contributes to pension funds so that old-age pensioners can obtain their pensions, is unsustainable. Since the start of the economic crisis, pension funds have periodically faced the prospect of bankruptcy, as the number of people who work and contribute to social insurance is shrinking, while the number of pensioners is increasing. Notably, the proportion of people aged 55 to 64 in work in Greece is the lowest of any OECD country, except Turkey. Moreover, pension policy does not meet intergenerational equity requirements. Existing arrangements primarily serve the interests of middle- and old-age groups at the expense of younger generations of workers. This is a constant pattern running parallel to the periodic trimming of pensions. [...] While the pension reform of 2016 had positive aspects (e.g., the establishment of a nationwide management system and unification of previously fragmented private sector pension schemes), Greece's pension system remains unsustainable. Bluntly, there are currently about 2.7 million pensioners, along with another 300,000 recent retirees, while the recorded number of Greeks working and paying insurance contributions is around 3.6 million."123

In Austria, too, the experts note that the country's pension policy is tilted primarily in favor of older generations. Younger generations in Austria will have to bear the burden significantly higher social security contributions in the future or they will have to make do with very low pensions in retirement if the reforms needed are not implemented. "Austria's pension system is still considered to be reliable and secure. However, the system's ability to respond to demographic changes is open to question. The population is aging and the birth rate of Austrian-born citizens is declining, yet the logical response – prolonging the period a person has to work before being entitled to a pension – is politically difficult to implement. Austrians still retire early by international comparison; nevertheless, some progress has been made in terms of increasing the effective retirement age in the

<sup>122</sup> Cotta, Maruhn and Colino (2019), available at www.sgi-network.org.

<sup>123</sup> Sotiropoulos, Huliaras and Karadag (2019), available under www.sgi-network.org.

last years. Thus, while the pension system itself is still considered stable, more efficient responses to the coming demographic changes must be found. Longer life expectancies have not completely found an equivalent in longer periods of working. This represents a significant burden for future generations, as pension expenditures consume a significant amount of government resources, to the disadvantage of the younger generations. According to recent calculations by the Austrian audit court, pension payments consume almost 50% of net state tax income. In comparison, state expenditures for schools and universities (primary, secondary and tertiary education) are lagging behind. The system therefore largely fails to achieve the objective of intergenerational equity. The different interests behind the different positions remain the same: Employers and right-of-center parties argue that without a significant increase in the statutory pension age, the outlook for the next generation is dire; labor unions and left-of-center parties argue that individuals who have worked hard for decades should be guaranteed the best-possible quality of life in their later years and without having to work significantly longer. Austria is partially stuck in a situation where the elderly – indirectly, as they constitute the relative majority of voters due to demographics - block significant reforms of the pension system in the country. No government will go against that voting block without significant protests from the youth."124

In Germany, the government has introduced the so-called double stop line mechanism in order to reduce in the short-term the risk of poverty in old age. However, the sustainability of the pension system cannot yet be ensured. "The largest challenge for the system's stability is demographic change, with the baby-boomer generation reaching retirement age in the 2020s. This will dramatically increase the ratio of pensioners to the active workforce. This trend would automatically lead to cuts in the level of pensions (relative to the average wage level) and may increase the risk of poverty in old age. To address this challenge, in 2018 the government agreed to establish the so-called double stop-line. This includes the double guarantee that the contribution rate will not increase above 20% and the pension level will not fall below 48% of the average wage. However, these guarantees will only hold to 2025, while the strong increase in the pensioner-to-worker ratio will occur after that. But even this temporary double guarantee requires a drastic increase in federal subsidies for the pension system. These subsidies are already increasing. In 2017, federal subsidies reached a level of €67.8 billion compared to €62.43 billion in 2015. The uncertain medium- and long-term sustainability of the system stand in strong contrast to the comfortable short-run development, which mirrors the employment boom and rising salaries."125

Australia, by contrast, has had fewer problems in designing a sustainable pension policy. As the country experts note, future generations in the country face less of a burden than their counterparts elsewhere because the Australian government has gradually raised the retirement age in recent years. In addition, it has focused on expanding private pension plans thereby shifting greater responsibility for pension schemes from the state to private households. To be sure, however, the Australian system is not without its weaknesses that have a negative impact on those over 65. The country experts describe the circumstances as follows: "Over

<sup>124</sup> Pelinka, Winter-Ebmer and Zohlnhöfer (2019), available at www.sgi-network.org. 125 Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

# FIGURE 41 Pension Policy (SGI)

Unit: Standardized Scale

onit. Sta	anual uizeu Scale			S	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Switzerland	8	9	10	10	10	10	10	10	2
2	Denmark	9	9	9	9	9	9	9	9	0
	Finland	9	9	9	9	9	9	9	9	0
	Norway	9	9	9	9	9	9	9	9	0
5	Australia	8	9	9	8	8	8	8	8	0
	Canada	9	9	8	8	8	8	8	8	-1
	Czechia	7	7	8	8	8	8	8	8	1
	Netherlands	9	8	8	9	8	8	8	8	-1
	Sweden	9	9	8	8	8	8	8	8	-1
	United Kingdom	7	8	8	8	8	8	8	8	1
11	Belgium	7	6	6	6	7	7	7	7	0
	Estonia			7	7	7	7	7	7	
	France	6	5	5	5	6	6	6	7	1
	Iceland	7	7	7	7	7	7	7	7	0
	Israel			7	7	7	7	7	7	
	Lithuania			7	7	7	7	7	7	
	Luxembourg	8	8	7	7	7	7	7	7	-1
	Slovenia			7	7	7	7	7	7	
	Spain	5	5	6	6	7	7	7	7	2
	United States	6	7	7	7	7	7	7	7	1
21	Austria	8	6	6	6	6	6	6	6	-2
	Germany	7	7	7	5	5	6	6	6	
	Ireland	8	6	6	6	6	6	6	6	-2
	Japan	5	4	5	5	5	6	6	6	1
	Korea	5	6	6	6	6	6	6	6	1
	Malta			5	5	5	6	6	6	
	New Zealand	9	8	6	6	6	6	6	6	-3
28	Bulgaria			6	5	5	5	5	5	
	Chile		8	7	6	6	5	5	5	
	Cyprus			4	5	5	5	5	5	
	Italy	4	5	5	5	5	6	6	5	1
	Mexico	4	5	5	5	5	5	5	5	1
	Poland	7	7	7	7	7	5	5	5	-2
	Portugal	5	4	4	4	4	5	5	5	0
	Slovakia	9	7	5	5	5	5	5	5	-4
	Turkey	4	5	5	5	5	5	5	5	1
37	Croatia			4	5	4	4	4	4	
	Greece	2	2	4	4	4	4	4	4	2
	Hungary	5	7	4	4	4	4	4	4	-1
	Latvia			5	4	4	4	4	4	
	Romania			4	4	4	4	4	4	
										0 1 2 3 4 5 6 7 8 9 10

Source: Sustainable Governance Indicators.

time the balance will shift toward the private pension system, which was only introduced on a large scale in 1992, and reached a minimum contribution rate of 9% of earnings only in 2002. The minimum contribution rate increased to 9.5% on 1 July 2014 and was scheduled to increase by a further 0.5% per year until it reached 12% on 1 July 2019. However, in 2014 the Abbott government deferred further increases until 1 July 2021. Contributions to private pensions are concessionally taxed at a flat rate of 15%, and private pension income in retirement is largely tax exempt. Population aging has increased anticipated pressures on the pension system. In response, the government indicated in its 2009 - 2010 budget that it would progressively increase the age of eligibility for the public age pension from 65 to 67 years (by July 2023). In terms of intergenerational inequity, the gradual nature of the shift since 1992 from a pay-as-you-go public pension toward a private pension system supplemented by a public pension has meant that relatively little inequity has resulted between generations. Lastly, concerning the fiscal sustainability of the pension system, while reliance on the public age pension will continue to be high for many years, in broad terms the pension system is relatively sustainable, with private pensions increasingly taking on more of the financial burden. Concerns have been raised, however, about the sustainability and equity of maintaining the tax-free status of private retirement income. The current absence of significant constraints on how private pension assets are used is also of concern, with some evidence that retirees run down private pension holdings too quickly and become reliant on the public age pension."126

Denmark is another country that is doing well in terms of integrating certain aspects of intergenerational justice into its pension policy. It ensures, for example, an adequate standard of living for today's pensioners without shying away from introducing necessary pension reforms that to some extent relieve younger generations of future burdens. For example, the government has begun adjusting the pension system to rising life expectancy. "The combination of the different pillars of the pension scheme creates a pension system that both protects against low income for the elderly (distributional objective) and ensures that most have a pension which is reasonable in relation to the income earned when the pensioner was active in the labor market (high replacement rates). [...] Statutory ages in the pension system (in public pensions for early retirement and age limits for payment of funds from pension schemes) are established by legislation. Recent reforms – the 2006 welfare reform and the 2011 retirement reform – will increase these ages considerably to cope with the aging population. First, there will be step increases in the retirement age (early retirement and pensions) and the early retirement period will be reduced from five to three years. Then, retirement ages will be linked to developments in life expectancy at the age of 60 such that the expected pension period will become 14.5 years (17.5 including early retirement) in the long run (currently the expected pension period is between 18.5 and 23.5 years). An attempt to phase these changes in more quickly did not get political support."127.

A similarly fair distribution of pension system costs among generations is seen in Norway. Buoyed by a voluminous state pension fund, Norway also shows how far-sighted policy planning leads to fair results. "Aging represents a significant

<sup>126</sup> Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org. 127 Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

challenge for public finances in Norway, as across all European countries. Nevertheless, Norway's pension system is fairly well-positioned to sustain an aging population, based on current expectations, over the next few decades. With birth rates that have been persistently high by European standards, the demographic burden is less than in most comparable countries. However, since pensions in Norway are fairly generous, the burden on public finance remains high. Future pensions are essentially guaranteed by the massive savings accumulated in the oil fund, which since 2006 has been officially renamed the Government Pension Fund - Global (Statens pensionsfond - Utland), although this is not a pension fund as such. A pension reform passed in 2009 came into effect in 2011. This has further strengthened the sustainability of the system. The crux of the reform was to introduce more choice and flexibility into the system in terms of retirement, while adding new mechanisms of gradual demographic adjustment. One major goal, in addition to improving financial sustainability, was to redesign contribution and benefit rules so as to encourage employment and discourage early retirement. This reform was carefully prepared, starting with the appointment of a cross-party pension commission in 2001; this body reported its findings in 2004, leading to a five-year process of political implementation that culminated in the 2009 reform, which drew widespread approval. During the process, the proposed reform was criticized as being "too little, too late," but that criticism has largely subsided today. The government recently created incentives for older citizens to postpone their retirement age from 67 to 70 years."128

In contrast to other countries, the financial pressure on young people in Norway does not increase due to the sustainability and generational balance of the pension system. In addition, young families in Norway not only receive intensive financial support, but thanks to the country's modern family policy also good conditions for balancing family life and work. This success is reflected, among other things, in an old-age dependency ratio (26.1%) that is decent in comparison to other Nordic countries (Denmark: 31.1%, Sweden: 32.3%, Finland: 34.9%). The country experts describe the situation as follows: "The country's family policy is oriented toward promoting equal opportunity and an equitable representation of women in leadership positions, particularly in political and business settings. There is a 12-month maternal/paternal leave program that provides parents with 80% of their salary. Six of the weeks are reserved for the father. These reforms have increased paternal involvement in the first years of children's lives (about 90% of fathers now take these six weeks). Government policy treats married and unmarried couples in a nondiscriminatory way. For example, tax declarations for labor income are filed individually, irrespective of whether a citizen is married or not. Informal cohabitation, as compared to formal marriage, is widespread. Almost all new unions start in informal cohabitation, and about half of the country's children are born to unmarried parents. About one in 10 children are born to single mothers, and institutional support for these women (e.g., the provision of day care and cash transfers) is stronger than in most countries."129

Sweden is another Nordic country demonstrating strong commitment to the needs of families: "Sweden has been politically and economically committed to strong

<sup>128</sup> Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org. 129 Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org.

# FIGURE 42 Family Policy (SGI)

Unit: Standardized Scale

				S	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Estonia			9	9	9	9	10	10	
	France	9	10	10	10	10	10	10	10	1
	Sweden	10	10	10	10	10	10	10	10	0
4	Denmark	9	9	9	9	9	9	9	9	0
	Iceland	10	9	9	9	9	9	9	9	
	Luxembourg	6	9	9	9	8	8	9	9	3
	Norway	10	10	9	9	9	9	9	9	
	Slovenia			8	8	8	8	9	9	
9	Belgium	9	9	8	8	8	8	8	8	-1
	Canada	8	8	7	7	7	8	8	8	0
	Finland	9	9	9	9	9	9	9	8	-1
	Germany	7	7	7	7	8	8	8	8	1
	New Zealand	9	9	8	8	8	8	8	8	-1
	United Kingdom	7	8	8	8	8	8	8	8	1
15	Australia	7	7	7	7	7	7	7	7	0
	Austria	6	6	7	7	7	7	7	7	1
	Ireland	7	7	7	6	7	7	7	7	0
	Israel			6	6	6	7	7	7	
	Latvia			7	7	7	7	7	7	
	Lithuania			8	6	7	7	7	7	
	Malta			5	6	6	7	7	7	
	Netherlands	9	8	9	8	8	8	7	7	-2
	Portugal	5	5	6	6	7	7	7	7	2
	Spain	5	5	5	5	5	5	6	7	2
	United States	6	7	8	8	7	7	7	7	1
26	Bulgaria			6	6	6	6	6	6	
	Czechia	7	6	6	6	6	6	6	6	-1
	Japan	5	6	5	5	5	5	5	6	1
29	Chile		6	5	5	5	5	5	5	
	Croatia			5	5	5	5	5	5	
	Greece	3	4	4	5	5	5	5	5	2
	Hungary	5	5	4	4	4	4	5	5	0
	Korea	5	4	4	5	5	5	5	5	0
	Poland	4	6	7	7	7	5	5	5	1
	Romania			5	5	5	5	5	5	
36	Cyprus			4	4	4	4	4	4	
	Italy	4	4	4	4	4	4	4	4	0
	Mexico	4	6	5	5	5	4	4	4	0
	Slovakia	5	5	5	5	5	4	4	4	-1
	Switzerland	4	4	4	4	4	4	4	4	0
	Turkey	4	4	4	4	4	4	4	4	0
										0 1 2 3 4 5 6 7 8 9 10

Source: Sustainable Governance Indicators.

Bertelsmann Stiftung

family policy for the past 50 years. Major features of Sweden's policy have been the separation of spouses' income and individual taxation, the expansion of public and private day care centers and a very generous parental leave program provided to both women and men, which has created much better possibilities to combine a professional career with parenthood. The parental leave program is expected to be expanded further, adding another month which can only be used by the father (a so-called daddy-month), thus incentivizing fathers to take more time off to engage in the care of their children."<sup>130</sup>

Estonia, which ranks 5<sup>th</sup> in terms of intergenerational justice and receives the maximum score possible in terms of family policy, provides strong support for families while making it possible to balance work with raising a family. "Estonia inherited a tradition of double-breadwinner families from Soviet times, when mothers typically worked full time. Despite huge social changes, this family pattern has continued, as evidenced by the high female employment rate. Family policy has persistently been high on the political agenda due to the country's low fertility rate and labor market needs. Estonia has one of the most generous parental benefit systems in the OECD, entitling parents to benefits equal to her/his previous salary for 435 days. This system, in place since 2004, has criticized due to its rigidity and negative impact on women's labor market participation, and was revised in 2018. The amendments have extended the period in which parents can take parental leave from one and a half years to three years, and parental leave can now be divided over several periods according to the parents' choice. Another important change was an effective increase in fathers' parental role, as the joint parental leave period was extended to two months."131

Luxembourg has proved able to improve its family policy and thereby render it comparable in recent years. "Luxembourg has positively responded to its changing demographics by adapting its family policies. In this context, the government has pushed for policies to offer a wide range of child allowances and child care services, such as child benefits, maternity leave, parental leave, birth and post-birth allowances. Furthermore, indirect help is also offered, such as subsidized mortgage interest rates, depending on the number of children at home. In general, Luxembourg offers the highest level of child benefits within the European Union. Today, it is one of the four leading EU member states in terms of family benefits. It has made sustainable improvements in terms of family-friendly workplace arrangements, while gender-based job segmentation and gender pay gap have decreased. When compared internationally, Luxembourg's tax policy is family-friendly. Women's labor-market participation has considerably increased since the launch of the European Employment Strategy. At the same time, the government has invested heavily in child care facilities, with the aim of making it easier for women to work."<sup>132</sup>

The example of these countries shows that with the right social policy reforms, governments can meet the challenges of demographic change with actionable solutions and thereby meet the needs and concerns of both younger and older generations. Unlike these model countries, however, there are also countries that offer little in the way of support to families and thus make starting a family

<sup>130</sup> Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

<sup>131</sup> Toots, Sikk and Jahn (2019), available at www.sgi-network.org.

<sup>132</sup> Zenthöfer, Lorig and Bandelow (2019), available at www.sgi-network.org.

unattractive. In the case of Korea, the country experts attribute the country's low fertility rate to the fact that benefits for families are insufficient and that the lack of child care services make it difficult for parents to (re-)enter working life. "With woman having an average of 1.2 children, South Korea has the lowest fertility rate in the OECD. The government has not been very effective in enabling women (or men) to combine parenting with participation in the labor market, which helps explain the low labor-market participation rate among women. The traditional Confucian family values that view women as mothers and housewives remain influential. High housing prices, high child-care and education costs, and precarious job and wage conditions are the most important factors in young couples' decisions not to have children. President Moon has promised to strengthen family and child care policies by building and expanding child care centers and kindergartens. Since 2008, the government has paid a cash allowance of KRW 100,000 per child, exempting families in the top 10% of the income bracket. Cultural and socioeconomic factors such as a gender-based pay gap and a pervasive lack of social mobility discourage women from entering or reentering the workforce. As a result, while college graduates are split fairly evenly between men and women, the employment rate for female graduates is lower than for male graduates. Furthermore, South Korea is the only country in the OECD where the employment rate among female college graduates is lower than that among women with no more than compulsory education."133

In Croatia, the situation regarding child care services and financial support is similarly weak. To make matters worse, women in the country are often subject to discrimination by employers. "However, maternity pay is relatively limited (in 1993, the government abolished the right to a full salary over the one-year period after birth of a child, as the only former Yugoslav country to do so), and child care facilities and extended-day programs at school are meager. Child care coverage is especially poor in less developed rural and semi-rural areas with low employment, reflecting the inability of local governments to pay for services. According to UNESCO reports, only 22% of the children from the poorest families (the lowest 20% by disposable income) attend kindergartens. While the share for the wealthiest 20% of the families is higher, it is still one of the lowest in the EU. Furthermore, work-life balance is unfavorable. According to the 2016 European Quality of Life Survey, only 62% of respondents in Croatia report that their working hours fit well with their family commitments, the lowest proportion of respondents reporting this imbalance in any EU country apart from Bulgaria. Women with children face challenges within the labor market. Discrimination by employers in some segments of the private sector against younger women is widespread, because it is assumed that women will eventually require maternity leave. The 2014 Family Act did not address these issues, focusing instead on expanding the legal rights of young people and clarifying child-custody issues. Due to numerous objections made after it was passed, the Constitutional Court suspended the entire Family Act in January 2015. Because of bitter conflicts between the conservative and the liberal camp in Croatia, three successive governments have refrained from submitting amended versions of the bill."134

133 Kalinowski, Rhyu and Croissant (2019), available at www.sgi-network.org. 134 Petak, Bartlett and Bönker (2019), available at www.sgi-network.org. In Greece, where spending on child care services is low, traditional family models means that children from socioeconomically disadvantaged families tend to grow up in poverty. The country experts attribute this state of affairs, as with pension policy, to policies that favor older generations: "Greece has one of the strongest traditions of family ties in Europe. In both urban and rural areas, grandparents often look after preschool children while mothers work, families care for their elderly or disabled at home, parents help around the house and feed the younger generation sometimes even into middle age. As a result, child care density is among the lowest in the OECD. If a family is poor, this condition also negatively affects child poverty. Indeed, Greece in the wake of the economic crisis is one of the OECD countries with the largest child poverty challenge. Instead of focusing on the poor and children, the bulk of social attention is focused on pensioners, often regardless of their income level. However, in early 2017, after a very long preparation period, the government began distributing a benefit called Social Sol-idarity Income (see Social Inclusion)."<sup>135</sup>

Another important aspect of intergenerational justice is the extent to which sustainable fiscal policies are targeted, for which a country's national debt is an indication. Debt can also promote intergenerational equity if it means making important investments in the future. However, high debt levels lead to enormous financial burdens for the younger generation. In Estonia, which features a debt ratio of only 8.1% of GDP, all generations have to bear the least financial burden in terms of debt. Estonia is thus the absolute front runner in this regard. But, as the country experts note, Estonia nonetheless faces challenges: "Estonia is recognized internationally as maintaining a balanced budget and low government debt. However, the current government is actively stimulating the economy via large-scale infrastructure projects, which according to the Bank of Estonia may have negative effects. One negative effect could be increasing labor shortages, leading to a decline in private sector investment and slow productivity growth."<sup>136</sup>

Although only eight countries in the last ten years have proved able to bring down their debt to pre-crisis levels and national debt in many countries remains much higher than in the SJI 2009, on average, we see encouraging developments in terms of debt reduction. Of the 41 countries surveyed, 30 were able to reduce their debt ratios since the SJI 2018. Among them were the second- and third-placed Bulgaria and Luxembourg, both of which have debt levels at about 20% of GDP. Iceland (35.4%), Malta (45.4%), Slovenia (68.5%) and Germany (59.8%) also made significant improvements. For the first time since the SJI 2009, Germany was able to bring its debt level down below the 60% of GDP prescribed in the Maastricht criteria. Country experts for Malta attribute the country's enormous improvement of 4.8 percentage points over 2018 to the fact that "Malta's economy continues to thrive, recording growth rates of up to 6% annually – among the highest in the EU - and obtaining generally positive ratings from credit agencies. The result is an economy that has shifted from a significant public deficit to one of consecutive surpluses; the debt-to-GDP ratio continues to be meaningfully reduced. Malta is experiencing an unprecedented upsurge in tourism and has finally succeeded in

<sup>135</sup> Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org. 136 Toots, Sikk and Jahn (2019), available under www.sgi-network.org.

### FIGURE 43 Public Debt

Unit: Percent of GDP

Unit: Pe	rcent of GDP			s	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Estonia	4.49	6.55	10.16	10.51	9.85	9.16	8.75	8.05	3.56
2	Bulgaria	14.72	14.09	17.25	26.39	25.64	27.36	23.29	20.52	
3	Luxembourg	14.91	19.79	23.69	22.74	22.19	20.68	22.96	21.81	
4	Chile	4.92	8.56	12.73	14.96	17.28	21.02	23.54	25.56	
5	Turkey	38.15	40.08	31.38	28.77	27.64		28.26	29.05	-9.10
6	New Zealand	18.98	29.69	34.60	34.25	34.37		31.61	29.39	10.41
7	Czechia	28.25	37.36	44.91	42.17	39.96	36.81	34.66	32.96	4.71
8	Denmark	33.31		44.05	44.27	39.76	37.28	34.78	34.27	0.96
9	Iceland	66.15	85.38	81.79	78.77	65.03	51.25	43.08	35.43	-30.72
10	Lithuania	14.57	36.22	38.76	40.54	42.58	39.93	39.42	35.91	
11	Romania	13.00		39.03	40.49	39.35	38.88	36.86	36.60	23.60
12	Norway	47.20		30.35	28.40	32.87	36.17	36.75	36.75	-10.45
13	Latvia	18.04		39.03	40.94	36.81	40.31	39.98	37.58	19.54
14	Sweden	37.74		40.73	45.46	44.18	42.36	40.83	39.01	1.27
15	Switzerland	45.87		42.92	42.97	43.01	41.84	41.81	40.51	5.36
16	Australia	11.75	20.49	30.68	34.09	37.77	40.53	40.67	40.67	28.92
17	Korea	28.16	30.83	35.39	37.31	39.53	39.89	39.76	40.71	12.55
18	Malta	62.61		68.36	63.37	57.92	55.45	50.21	45.37	-17.24
19	Poland	46.30	53.13	55.69	50.41	51.28	54.23	50.57	48.36	2.06
20	Slovakia	28.46	41.20	54.74	53.52	52.18		50.94	48.85	20.39
21	Mexico	42.49	41.96	45.90	48.88	52.83	56.76	54.00	53.57	11.08
22	Netherlands	53.79	59.26	67.67	67.86	64.65		56.96	54.44	0.65
23	Israel	71.86	70.69	67.05	65.76		61.97	60.40	59.59	-12.27
24	Germany	65.15	80.96	77.42	74.51	70.84		63.86	59.75	-5.40
25	Finland	32.65	47.12	56.46	60.20	63.53		61.29	60.52	
26	Ireland	42.41	86.00	119.81	104.25	76.92	73.54	68.54	65.20	22.79
27	Slovenia	21.65	38.18	70.38	80.37	82.57		74.09	68.49	46.84
28	Hungary	71.24	80.25	77.15	76.65	76.61	75.86	73.25	69.39	-1.85
29	Croatia	39.56	58.12	81.63	85.71	85.27	82.28	77.66	73.86	34.30
30	Austria	68.42	82.42	81.01	83.76	84.40		78.49	74.24	5.82
31	United Kingdom	49.69	75.24	85.15	87.01	87.88	87.91	87.14	86.86	37.17
32	Canada	68.03	81.34	86.21	85.70	91.32	91.82	90.09	90.63	22.60
33	Spain	39.40	60.07	95.45	100.37	99.33	98.97	98.12	97.02	
34	France	68.78	85.26	93.41	94.89	95.58	96.59	98.50	98.59	29.81
35	Belgium	92.53	99.72	105.45	107.57		106.06	103.40	101.39	8.86
36	Cyprus	44.13	55.80	102.08	107.97	107.99	105.51	95.75	102.54	58.41
37	United States	73.68	95.41	104.76	104.45	104.69	106.87	106.23	105.77	32.09
38	Portugal	71.67	90.53	129.04	130.59	128.77	129.21	124.76	121.44	49.77
39	Italy	102.41	115.41	129.02	131.79	131.56	131.35	131.28	132.09	29.68
40	Greece	109.42	146.25	177.95	180.21	177.83	181.07	179.28	183.26	73.84
41	Japan	183.42	207.85	232.47	236.07	231.55	236.34	234.98	237.12	53.70
										0 50 100 150 200 250
										5 55 100 150 200 250

Source: IMF.

BertelsmannStiftung

attracting significant numbers of visitors during the "shoulder" months. Despite implementing a hefty reduction in tariffs, the government has not only turned around the fortunes of the country's sole energy provider, Enemalta, but enabled it to make a profit. Enemalta has transitioned to use of a gas-fired power station, and has increased the use of solar energy technologies."<sup>137</sup>

In contrast to these developments, Greece, Italy and Portugal in southern Europe still show no improvement in their debt ratios. These countries, which are still languishing under the effects of the economic crisis, grapple with a budgetary situation that is worsening. In Greece, for example, the country with the second highest debt level of 183.3% of GDP, we see an increase of 4 percentage points compared to the SJI 2018. Governments in these countries - for present and future generations – have extremely limited spending capacity. Japan's debt-to-GDP ratio is blaring indication of how sustainable and intergenerational arguments are absent from the country's budgetary considerations. With an extremely high national debt of currently 237.1% of GDP, Japan's debt level is creating a massive burden for future generations. Given Japan's demographic structure, the urgency to act increases even more. The financial burden, if measured per child, is already extremely high at 816,000I\$ in debt. Even countries that have been able to reduce their debt levels in recent years are showing increasing per-child debt due to demographic change. This can be seen among others in Belgium, the United States and Canada, where the burden per child has continued to rise to I\$279.000 and more – despite reduced debt levels. Only in Mexico is the financial constraint due to high fertility rates significantly lower when the total number of children are factored in (I\$42.000).

However, a country's national debt level is not the only criterion determining financial sustainability. If spending target the promotion of solutions to urgent problems or benefits younger generations by investing in the future, it can make a major contribution to intergenerational justice. These future-oriented investments often encompass expenditure on research and development (R&D). Israel and Korea top the list in terms of spending on R&D. In Korea, both public and private spending on innovation is traditionally very high, at just under 1% and 3.6% of GDP respectively, and will continue to rise, according to the country experts: "The South Korean government invests heavily in research and development (R&D), particularly in fields which can be directly commercialized. The current government plans to unify previously fragmented policies in the area of R&D. A presidential committee on the so-called Fourth Industrial Revolution will be established, and President Moon has said his administration will seek to actively harness new technologies and spur innovation in order to create new jobs. According to the 2018 budget allocation and adjustment plan, significant investments will be made in core technologies, including artificial intelligence. The budget for research and development (R&D) will be about KRW 920 billion, a 20% increase from 2017. Korea has an excellent research infrastructure, with many world-class universities and research institutes that produce internationally competitive research and patents. What impedes innovation is mostly the Korean market's oligopolistic structure, which makes it difficult for entrepreneurs and SMEs to succeed. The country has struggled to translate massive investments in

### FIGURE 44 Public Debt, Per Child

Unit: I\$1,000

				S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Estonia	7	9	17	19	18	17	17	17	9
2	Chile	4	7	13	16	20	25	28	33	29
3	Bulgaria	18	17	22	35	36	40	36	33	16
4	Turkey	24	26	28	27	28	30	33	35	11
5	Mexico	22	22	28	32	36	40	40	42	19
6	New Zealand	28	45	59	61	64	65	63	60	32
7	Romania	14	32	47	52	54	56	58	62	48
8	Latvia	27	58	61	66	61	68	71	71	45
9	Czechia	56	72	88	86	85	80	79	78	22
10	Israel	73	75	79	80	79	79	79	81	9
11	Lithuania	21	49	68	76	84	81	86	83	62
12	Poland	58	73	89	85	91	100	100	101	43
13	Iceland	138	162	177	177	154	132	117	102	
14	Denmark	78	99	114	119	111	108	105	107	30
15	Slovakia	44	65	98	100	103	106	109	110	66
16	Australia	25	45	75	86	97	107	109	112	87
17	Sweden	95	99	110	125	126	123	120	118	23
18	Korea	45	57	82	93	104	110	117	126	81
19	Croatia	55	76	113	123	128	131	132	133	79
20	Luxembourg	76	101	133	133	135	129	146	144	69
21	Malta	110	126	152	155	155	157	151	146	36
22	Hungary	109	120	129	136	142	146	150	152	44
23	Norway	156	139	110	106	127	142	150	155	-1
24	Slovenia	47	76	139	165	173	171	171	168	121
25	Finland	79	110	140	150	160	164	168	174	96
26	Switzerland	158	149	164	170	173	171	174	175	17
27	Netherlands	139	154	188	197	195	195	189	191	52
28	United Kingdom	104	155	191	203	210	214	217	222	118
29	Germany	189	241	264	266	258	251	243	233	44
30	France	134	166	195	202	208	216	230	241	107
31	Ireland	93	176	263	252	234	237	240	250	157
32	Cyprus	88	113	200	217	224	231	224	253	164
33	Spain	90	130	202	220	229	239	249	259	169
34	Austria	191	235	259	275	282	281	274	270	79
35	Canada	161	197	235	244	263	268	271	279	118
36	Portugal	121	157	230	244	253	266	273	281	160
37	Belgium	218	237	262	275	278	283	285	289	70
38	United States	174	229	284	297	310	325	337	352	178
39	Greece	236	289	306	321	323	337	345	371	135
40	Italy	263	287	326	336	345	356	373	392	129
41	Japan	473	545	681	713	720	752	781	816	343
										0 100 200 300 400 500 600 700 800

Source: IMF, World Bank, Eurostat & OECD.

Bertelsmann Stiftung

research into productivity increases. Bureaucratic regulations remain intact in many areas."  $^{\rm 138}$ 

The country experts for Israel also underscore the value of an effective and innovation-friendly research infrastructure that focuses in Israel primarily on future technologies and enjoys the support of private sector spending totaling 3.8% of GDP. "In 2014 the government's social-economic cabinet approved the establishment of aimed to encourage technological innovation. The Israel Innovation Authority began its activity in early 2017. The authority was established based on the model of the Office of the Chief Scientist in the Israeli Ministry of Economy and Industry, with the goal of implementing the R&D law, and providing high-quality and effective services for the Israeli innovation ecosystem. [...] Israel produces a large number of new and important patents every year, mainly in the fields of science and technology. It is a signatory to the Patent Cooperation Treaty. In 2017, the number of patents approved in Israel decreased by 19% - from 813 in 2016 to 660 in 2017. Although the state of innovation in Israel is good, a comparative study from the Samuel Neaman Institute found that the rate at which research output grows in Israel is lower than in similar small, high-innovation countries like Belgium and Singapore. This trend might lead to a future decline in Israel's status as a highly innovative country. The study points to the declining share that academic research accounts for within total (civilian) R&D investment as a possible cause for this development."139

In addition to the top performers of Israel and Korea, countries such as Sweden, Switzerland, Austria, Denmark and Germany also feature comparatively high expenditures on R&D in an effort to advance innovation and develop solutions to urgent problems. As in all 41 countries, private spending on R&D in these countries is significantly higher than government spending. In third-ranked Japan, where private spending is at 2.7% of GDP, government expenditure on R&D amount to only 0.5% of the GDP.

In contrast to these role models, Bulgaria, Romania, Malta and Cyprus land at the bottom of the ranking with less than 0.3% of GDP being spent on research and development in the public sector. In Latvia, Chile and Mexico, private sector investment rates are also very low at levels below 0.3% of GDP. Although Chile has sought to remedy this problem by introducing appropriate incentives, major investments in innovation have thus far failed to materialize: "But Chile has shown that it is aware of shortcomings regarding the necessities of technological innovation, especially for its future economic and social development. Significant reforms have been put in place to raise R&D funding, including earmarked taxation (a royalty tax on mining), higher government expenditure, and the improvement of tax incentives for private R&D. Although results have to date been disappointing – in large part because of bureaucratic hurdles to the approval of private and public projects - Chilean institutions show good results at least in the area of basic research. But the steps necessary to transform this good basic research into applied research are almost never taken. Universities are often not prepared to support research that operates at the interface between basic research

### FIGURE 45 Public R&D Spending

Unit: Percent of GDP

Jiiit. Fei	cent of GDP			s	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Korea	0.65	0.79	0.93	0.96	0.95	0.98	1.00	0.98	0.33
2	Austria	0.76	0.95	0.95	1.10	0.99	1.10	0.99	0.93	0.17
	Norway	0.65	0.70	0.76	0.76	0.76	0.76	0.87	0.93	0.28
	Sweden	0.83	0.80	0.89	0.89	0.93	0.93	0.93	0.93	0.10
5	Denmark	0.66	0.65	0.83	0.87	0.89	0.89	0.92	0.83	0.17
	Germany	0.68	0.74	0.84	0.84	0.82	0.82	0.81	0.83	0.15
7	Switzerland	0.61	0.62	0.62	0.75	0.75	0.75	0.82	0.82	0.21
8	Finland	0.84	0.77	0.91	0.91	0.86	0.87	0.84	0.79	-0.05
9	Australia	0.75	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.03
10	France	0.79	0.80	0.77	0.79	0.79	0.77	0.77	0.77	-0.02
11	Iceland	1.14	0.97	0.97	0.97	0.63	0.67	0.68	0.73	-0.41
12	Netherlands	0.69	0.64	0.64	0.62	0.64	0.66	0.66	0.63	-0.06
	United States	0.76	0.84	0.86	0.79	0.75	0.71	0.69	0.63	-0.13
14	Czechia	0.55	0.56	0.65	0.66	0.66	0.65	0.62	0.62	0.07
15	Luxembourg	0.26	0.29	0.49	0.57	0.63	0.63	0.61	0.61	0.35
16	Israel	0.55	0.53	0.52	0.53	0.51	0.57	0.64	0.60	0.05
17	Belgium	0.41	0.45	0.50	0.56	0.57	0.57	0.55	0.55	0.14
	Portugal	0.46	0.63	0.61	0.59	0.62	0.61	0.55	0.55	0.09
19	Canada	0.61	0.63	0.60	0.61	0.58	0.55	0.54	0.49	-0.12
20	Italy	0.51	0.49	0.51	0.54	0.54	0.53	0.51	0.48	-0.03
	Japan	0.53	0.52	0.53	0.54	0.57	0.54	0.51	0.48	-0.05
22	Estonia	0.50	0.63	0.76	0.81	0.81	0.71	0.68	0.47	0.03
	New Zealand	0.48	0.49	0.51	0.51	0.46	0.46	0.46	0.47	-0.01
	Spain	0.50	0.60	0.59	0.56	0.53	0.51	0.50	0.47	0.03
25	United Kingdom	0.50	0.50	0.51	0.46	0.48	0.47	0.46	0.44	-0.06
26	Greece	0.27	0.41	0.33	0.35	0.42	0.44	0.51	0.43	0.16
27	Slovenia	0.53	0.51	0.76	0.74	0.69	0.52	0.44	0.41	-0.12
28	Poland	0.32	0.36	0.42	0.45	0.41	0.42	0.42	0.37	0.05
29	Croatia	0.41	0.44	0.36	0.34	0.32	0.33	0.31	0.36	-0.05
30	Lithuania	0.42	0.43	0.38	0.36	0.33	0.34	0.37	0.33	-0.09
	Mexico	0.18	0.27	0.32	0.33	0.35	0.38	0.37	0.33	0.15
32	Hungary	0.44	0.41	0.45	0.47	0.50	0.45	0.47	0.32	-0.12
	Slovakia	0.26	0.24	0.33	0.33	0.32	0.36	0.37	0.32	0.06
	Turkey	0.27	0.22	0.23	0.23	0.22	0.23	0.24	0.32	0.05
35	Ireland	0.38	0.47	0.46	0.43	0.43	0.41	0.31	0.31	-0.07
36	Cyprus	0.26	0.25	0.32	0.28	0.29	0.27	0.24	0.22	-0.04
37	Latvia	0.25	0.28	0.16	0.16	0.15	0.18	0.20	0.21	-0.04
38	Malta	0.16	0.15	0.20	0.27	0.27	0.22	0.24	0.19	0.03
	Romania	0.29	0.39	0.24	0.24	0.20	0.19	0.20	0.19	-0.10
40	Bulgaria	0.28	0.27	0.21	0.19	0.20	0.21	0.20	0.17	-0.11
	Chile	0.11	0.13	0.12	0.13	0.15	0.17	0.16	0.17	0.06
										0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2

Source: Eurostat & OECD.

Bertelsmann Stiftung

and industrial development. This is reflected in the comparatively low number of patents registered per year on a per capita basis, whereas the number of scientific publications is relatively high. In general, access to the limited public funds available for research tends to be quite difficult due to high bureaucratic barriers."<sup>140</sup>

## 6. Health

In the area of health, Luxembourg, France, New Zealand and the top-placed Norway show the best performance. Latvia is the lowest-ranked country in the SJI 2019 in this dimension, with a very large gap of nearly four points separating it from the top group. Mexico, Chile, Bulgaria, Hungary and Turkey have also shown great problems in ensuring the provision of good-quality and inclusive health care.

Although the average score across the 41 OECD and EU countries has changed little since the SJI 2009, developments at least in Mexico and Turkey offer some minimal ground for hope. Both countries have been able to improve their performance slowly but steadily in recent years. The experts for Turkey attribute this to a restructuring of the Ministry of Health, among other factors: "New legislation was recently introduced, restructuring the Ministry of Health and its subordinate units, while enhancing its role in health care policy development, planning, monitoring and evaluation. A new public health institution has been established to support the work of the Ministry of Health in the area of preventive health care services. By 2014, Turkey had achieved near-universal health-insurance coverage, increasing financial security and improving equity in access to health care nationwide. The scope of the vaccination program has been broadened, the scope of newborn screening and support programs have been extended, community-based mental-health services have been created, and cancer screening centers offering free services have been established in many cities."141 Nevertheless, fundamental problems remain. This is true with regard to health system outcomes in both countries, among other issues. In both Turkey and Mexico, infant mortality rates remain extremely high on a comparative basis, with the countries' systems respectively recording 10 and 11.5 deaths per 1,000 births. Even with an average of 66 years of healthy life expectancy for Turkey, and 67.7 years for Mexico, the two countries are unable to keep up with the rest of the sample. However, difficulties extend beyond efforts to ensure the quality of health care. As the country experts for Mexico note, access to adequate medical care is extremely unequally distributed: "Private, self-financed health care is largely limited to middle-class and upper-class Mexicans, who encompass roughly 15% of the total population, but receive about one-third of all hospital beds. Around one-third of the population (most of whom work in the formal sector) can access health care through state-run occupational and contributory insurance schemes such as the Mexican Social Security Institute (Instituto Mexicano del Seguro Social, IMSS) and the State Employees' Social Security and Social Services Institute (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, ISSSTE). These are based on automatic contributions for workers in the formal sector and, in prac-

<sup>140</sup> von Knebel, Zilla and Thunert (2019), available under www.sgi-network.org.141 Genckaya, Togan, Schulz and Karadag (2019), available at www.sgi-network.org.

Constal location location

#### FIGURE 46 Health

Unit: Score

				So	cial Jus	tice Ind	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Norway	7.03	6.91	7.14	7.13	7.17	7.20	7.39	7.48	0.45
2	Luxembourg	6.96	6.95	7.17	7.21	7.05	7.28	7.30	7.32	0.36
3	New Zealand	6.77	6.82	6.91	7.03	7.08	7.05	7.19	7.28	0.50
4	France	7.06	6.99	7.02	6.96	6.99	7.04	7.21	7.23	0.17
5	Italy	7.02	7.22	7.43	6.98	7.04	7.06	7.09	7.14	0.12
6	Spain	6.38	6.56	6.71	7.00	7.02	6.97	6.98	7.14	0.76
7	Iceland	7.32	7.43	7.10	6.87	6.84	6.90	7.06	7.12	0.20
8	Australia	6.43	6.53	6.97	7.11	7.17	7.06	7.04	7.10	0.67
9	Israel			6.85	6.88	6.90	6.97	6.95	6.98	
10	Denmark	6.86	6.91	6.93	6.94	6.95	6.82	6.95	6.97	0.11
11	Sweden	7.00	7.09	7.15	7.06	7.03	6.97	7.11	6.92	-0.09
12	Austria	6.84	6.71	7.06	7.04	6.86	7.07	7.18	6.92	0.08
13	Germany	6.23	6.30	6.64	6.71	6.69	6.74	6.75	6.82	0.58
14	Canada	6.21	6.30	6.51	6.54	6.57	6.61	6.75	6.80	0.59
15	Japan	6.20	6.26	6.52	6.68	6.67	6.69	6.69	6.72	0.53
16	Switzerland	6.57	6.55	6.68	6.70	6.79	6.66	6.62	6.68	0.11
17	Netherlands	6.59	6.49	6.72	6.64	6.42	6.49	6.55	6.61	0.02
18	Ireland	6.68	6.74	6.79	6.64	6.51	6.22	6.43	6.48	0.20
19	Greece	5.86	6.36	6.54	6.29	6.14	6.20	6.43	6.41	0.54
20	Finland	6.15	6.34	6.29	6.50	6.52	6.53	6.42	6.40	0.25
21	Belgium	6.13	6.23	6.21	6.10	6.08	6.15	6.29	6.27	0.14
22	United Kingdom	6.09	6.26	6.52	6.37	6.37	6.18	6.17	6.20	0.11
	EU/OECD Average	6.05	6.11	6.01	6.03	6.01	6.02	6.05	6.08	
23	Portugal	5.34	5.56	5.89	5.93	5.96	5.90	6.10	6.08	0.74
24	Estonia			5.74	5.71	5.79	5.84	5.99	6.08	
25	Slovenia			5.96	6.14	6.21	6.03	6.05	6.06	
26	Czechia	5.91	6.06	6.27	6.36	6.35	6.09	5.90	5.89	-0.03
27	Slovakia	4.93	5.19	5.33	5.44	5.44	5.48	5.57	5.63	0.70
28	Korea	5.09	5.51	5.59	5.60	5.69	5.92	5.55	5.59	0.50
29	United States	5.45	5.67	5.77	5.95	6.00	5.86	5.59	5.58	0.13
30	Cyprus			5.53	5.45	5.63	5.59	5.48	5.55	
31	Malta			5.45	5.30	5.18	5.22	5.41	5.52	
32	Croatia			5.21	5.50	5.26	5.34	5.16	5.19	
33	Lithuania			5.31	5.22	5.15	4.92	4.98	5.13	
34	Poland	4.58	4.75	5.08	5.01	5.03	5.01	5.00	5.06	0.49
35	Romania			4.84	5.04	5.12	5.11	5.07	5.01	
36	Turkey	3.42	3.94	4.28	4.28	4.46	4.62	4.68	4.82	1.40
37	Hungary	4.95	4.99	4.72	4.84	4.83	4.84	4.73	4.73	-0.23
38	Chile		4.17	4.50	4.63	4.38	4.43	4.52	4.56	
39	Bulgaria			3.80	4.31	3.95	4.26	4.09	4.22	
40	Mexico	3.57	3.62	3.57	3.41	3.59	4.11	4.03	4.06	0.49
41	Latvia			3.82	3.63	3.64	3.58	3.65	3.72	
										0 1 2 3 4 5 6 7 8 9 10

Source: Social Justice Index.

Bertelsmann Stiftung

tice, work reasonably well, although with some variation across different parts of the country. The system has been decentralized to the states. In 2016, a National Agreement Toward Health Service Universalization was signed, which aims to ensure portability across providers. Public health issues are aggravated by the lack of access to quality health services. Though most Mexicans are affiliated with the different sources of health care providers, including public and private, there are still issues of quality that negatively affect public health. For example, with some 13 million Mexicans suffering from diabetes, the country has one of the highest rates of diabetes among all OECD countries. The lack of sufficient health care and infrastructure means that diabetes patients suffer from several complications."<sup>142</sup>

The southeastern European countries of Croatia, Bulgaria, Hungary and Romania also exhibit clear weaknesses with regard to providing an inclusive and high-quality health care system. In each case, their performance is significantly below the OECD and EU average. The comparatively low average number of healthy life years attained by people in these countries is just one illustration of their difficulties. These countries' poor performances can be traced back to a number of shortcomings, including funding problems linked to consequences of the economic crisis, and a lack of necessary reforms.

As the country experts for Croatia note, equitable access and the overall quality of health care additionally suffer from regional differences. The country also lags with regard to modernization in the health care sector: "Access to care is adversely affected by the regional variation in the range of care provided, the quality of services suffers from weak organization, a lack of digitalization and an inadequate monitoring of treatment outcomes. In addition, there is evidence of significant health inequalities between low and high-income groups." The tight labor market and aging demographics have made it increasingly difficult to finance health care, a problem which only exacerbates inequality as contribution rates increase: "The low employment rate and aging demographics have produced a persistent financial deficit within the system. In late 2017, the debt of the health care system reached more than HRK8.2 billion - approx. 2.2% of GDP, prompting another emergency allocation from the national budget. Since EU accession, the number of physicians and other medical professionals leaving Croatia has reached alarming proportions. The Plenković government has so far done relatively little to address these problems. While the increase in the health care insurance contribution rate from 15 to 16.5 % as of January 2019 will provide additional resources, the functioning of the health care system has been left largely untouched. The long-awaited adoption of the National Hospital Development Plan took until September 2018. A new health care bill submitted in early summer 2018 triggered large protests of primary health care physicians, who took to the streets against the government reneging on its earlier promise to allow all physicians to work as private practitioners rather than as employees in community health centers."143

In Bulgaria, health care access is additionally determined by informal, under-thetable payments: "The system is inclusive, providing at least some level of health care for all who need it. Important outcome indicators (e.g., life expectancy and

<sup>142</sup> Muno, Faust and Thunert (2019), available at www.sgi-network.org.143 Petak, Bartlett and Bönker (2019), available at www.sgi-network.org.

## FIGURE 47 Infant Mortality Rate

Unit: per 1,000 live births

				S	ocial Jus	tice Inde	ex			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	2.3	2.1	1.9	1.8	1.8	1.7	1.7	1.6	
2	Slovenia	3.1	2.8	2.3	2.2	2.0	1.9	1.8	1.7	-1.4
3	Finland	2.8	2.6	2.3	2.2	2.1	2.0	1.9	1.9	-0.9
	Japan	2.6	2.4	2.2	2.1	2.1	2.1	1.9	1.9	-0.7
5	Cyprus	3.6	3.2	2.7	2.5	2.4	2.3	2.2	2.1	-1.5
	Estonia	4.7	4.0	3.1	2.9	2.6	2.5	2.3	2.1	-2.6
	Luxembourg	2.7	2.5	2.3	2.3	2.2	2.2	2.1	2.1	-0.6
	Norway	3.0	2.7	2.4	2.3	2.3	2.2	2.1	2.1	-0.9
9	Sweden	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.3	-  -0.4
10	Czechia	3.2	2.8	2.5	2.5	2.5	2.5	2.6	2.6	-0.6
	Spain	3.6	3.3	3.0	2.9	2.8	2.7	2.6	2.6	
12	Korea	4.1	3.7	3.3	3.2	3.1	3.0	2.9	2.8	
13	Austria	3.8	3.7	3.3	3.2	3.1	3.0	3.0	2.9	-0.9
	Israel	4.1	3.8	3.4	3.3	3.2	3.0	2.9	2.9	-1.2
	Italy	3.6	3.4	3.2	3.1	3.0	3.0	2.9	2.9	
16	Australia	4.5	4.2	3.6	3.5	3.3	3.2	3.1	3.0	-1.5
	Ireland	3.9	3.6	3.4	3.3	3.2	3.1	3.0	3.0	-0.9
18	Belgium	3.9	3.7	3.5	3.4	3.3	3.2	3.1	3.1	-0.8
	Germany	3.7	3.6	3.3	3.3	3.3	3.3	3.2	3.1	-0.6
	Portugal	3.3	3.2	3.0	3.0	3.0	3.0	3.1	3.1	-0.2
21	Netherlands	4.1	3.8	3.6	3.5	3.5	3.4	3.4	3.3	-0.8
22	Lithuania	6.5	5.3	4.2	4.0	4.0	4.0	3.8	3.4	-3.1
23	France	3.6	3.5	3.4	3.4	3.4	3.5	3.5	3.5	-0.1
24	Latvia	7.8	7.0	5.7	5.2	4.7	4.3	3.9	3.6	-4.2
25	Denmark	3.8	3.5	3.5	3.5	3.6	3.6	3.7	3.7	-0.1
	Switzerland	4.1	4.0	3.9	3.8	3.8	3.8	3.8	3.7	0.4
	United Kingdom	4.9	4.6	4.1	3.9	3.8	3.8	3.7	3.7	-1.2
28	Hungary	5.8	5.3	4.8	4.7	4.5	4.3	4.1	3.8	-2.0
29	Croatia	5.3	4.9	4.5	4.3	4.2	4.1	4.0	3.9	-1.4
30	Poland	6.0	5.4	4.6	4.5	4.3	4.2	4.1	4.0	-2.0
31	Greece	3.4	3.3	3.3	3.5	3.6	3.9	4.2	4.3	0.9
32	New Zealand	5.3	5.2	5.0	4.9	4.7	4.6	4.5	4.4	
33	Canada	5.1	5.0	4.8	4.8	4.7	4.7	4.6	4.5	-0.6
34	Slovakia	6.4	6.0	5.5	5.3	5.1	5.0	4.8	4.6	-1.8
35	Malta	5.9	5.9	5.8	5.8	5.8	5.7	5.7	5.6	-0.3
36	United States	6.5	6.4	6.1	6.0	5.9	5.8	5.7	5.7	-0.8
37	Bulgaria	9.9	9.3	8.3	7.8	7.4	7.0	6.7	6.3	-3.6
	Chile	7.7	7.7	7.2	7.1	6.9	6.7	6.6	6.3	-1.4
39	Romania	12.2	10.2	9.4	9.0	8.4	7.8	7.2	6.6	-5.6
40	Turkey	20.2	17.6	14.3	13.3	12.4	11.6	10.8	10.0	-10.2
41	Mexico	16.3	15.3	14.1	13.7	13.2	12.7	12.2	11.5	-4.8
										0 3 6 9 12 15 18 21

Source: World Bank.

Bertelsmann Stiftung

infant mortality) have visibly improved in recent years. However, the practice of unregulated payments to doctors is widespread. Those who can afford to make unregulated payments, receive faster and better quality health care. The system also suffers from substantial financial leakages, with public funds appropriated and misused by private actors." Moreover, continuing political instability within the health care system clouds Bulgaria's future prospects: "Health care policy has been characterized by serious policy instability. Over the last decade, ministers of health have served on average less than 11 months. As a result, few of the regularly announced reforms have actually been implemented." <sup>144</sup>

A similar set of problems is evident in Hungary. In recent years, Hungary has also become an object of still greater concern due to developments in its health care sector. Extremely poor-quality and unequal health care, corruption, and neglect of the health care sector by policymakers have led to vociferous protests against the government: "Health care has been one of the most conflict-ridden policy field in Hungary. A continuing series of scandals have made this issue a major Fidesz policy weakness and a subject of large-scale public protest. Health care has suffered from the absence of a ministry tasked with addressing health care issues and from a limited health care budget, which is one of the lowest in the OECD with spending per capita at around 50% of the EU average. The Orbán governments have failed to tackle the widespread mismanagement and corruption in the health sector, the large debt burden held by hospitals, the discretionary refusal of services by medical staffers, and the increasing brain drain of doctors and nurses to other countries. Good quality services are available in the private sector, but only for a small share of society. Despite some reform announcements in the campaign to the 2018 elections, health care has remained a low priority issue for the new Orbán government. Anikó Nagy, the new State Secretary for Health resigned already in early October, after less than five months in office."145

One country that has instead steadily improved on this measure and made it into the top ten in the SJI 2019's health ranking is Spain. It's very high score for healthy life expectancy is just one marker; Spaniards can expect, on average, 73.8 years of a healthy life, which puts the country in second place in this regard. As the country experts note, the new government has also managed to send a clear signal in targeting universal access to health care: "The national health care system is highly decentralized, relatively well-thought out, and largely achieves the criteria of quality, inclusiveness and cost efficiency. [...] During 2018, the austerity-era legislation that had excluded undocumented migrants from health coverage was reversed, and the new government invited regional health authorities and the civil society representatives for an open debate on the reform of the system and to re-establish the universality of the Health System."146 However, Spain's health care system is also not fully inclusive: "Access to a core set of high-quality health services is guaranteed through a public insurance system that covers 99% of the population. However, the number of practicing doctors, nurses and hospital beds per 1,000 residents is relatively low. The most recent reports also emphasize deficiencies related to waiting lists, patient rights and sickness prevention. There is interregional inequality too. The system's sustainability is at

<sup>144</sup> Ganev, Popova and Bönker (2019), available at www.sgi-network.org.145 Ágh, Dieringer and Bönker (2019), available at www.sgi-network.org.

<sup>146</sup> Kölling, Molina and Colino (2019), available at www.sgi-network.org.

## FIGURE 48 Healthy Life Expectancy

Unit: Years

Unit: Ye	ars			S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Japan	73.2	73.2	73.8	75.0	75.0	75.0	74.7	74.8	1.6
2	Spain	71.5	71.5	72.9	73.0	73.0	73.0	73.5	73.8	2.3
3	Switzerland	71.3	71.3	72.5	73.0	73.0	73.0	73.2	73.5	2.2
4	France	71.3	71.3	72.2	72.0	72.0	72.0	73.2	73.4	2.1
5	Cyprus	71.2	71.2	72.4	74.0	74.0	74.0	73.1	73.3	2.1
6	Canada	71.3	71.3	72.2	72.0	72.0	72.0	73.0	73.2	1.9
	Italy	71.9	71.9	72.8	73.0	73.0	73.0	73.0	73.2	1.3
8	Australia	71.4	71.4	72.2	73.0	73.0	73.0	72.7	73.0	1.6
	Iceland	71.9	71.9	72.6	72.0	72.0	72.0	73.0	73.0	1.1
	Korea	69.9	69.9	71.4	73.0	73.0	73.0	72.7	73.0	3.1
	Norway	71.2	71.2	71.8	71.0	71.0	71.0	72.9	73.0	1.8
12	Israel	70.8	70.8	72.4	72.0	72.0	72.0	72.7	72.9	2.1
13	New Zealand	71.0	71.0	72.0	72.0	72.0	72.0	72.6	72.8	1.8
14	Luxembourg	70.4	70.4	71.7	72.0	72.0	72.0	72.6	72.6	2.2
15	Austria	70.6	70.6	71.4	71.0	71.0	71.0	72.1	72.4	1.8
	Sweden	71.2	71.2	71.9	72.0	72.0	72.0	72.3	72.4	1.2
17	Malta	70.5	70.5	71.6	71.0	71.0	71.0	72.2	72.2	1.7
18	Ireland	69.8	69.8	71.5	71.0	71.0	71.0	72.0	72.1	2.3
	Netherlands	70.4	70.4	71.4	71.0	71.0	71.0	72.0	72.1	1.7
20	Greece	70.5	70.5	71.5	71.0	71.0	71.0	71.8	72.0	1.5
	Portugal	69.6	69.6	70.8	71.0	71.0	71.0	71.8	72.0	2.4
22	United Kingdom	69.9	69.9	71.3	71.0	71.0	71.0	71.7	71.9	2.0
23	Denmark	69.6	69.6	70.4	70.0	70.0	70.0	71.5	71.8	2.2
24	Finland	69.6	69.6	70.4	71.0	71.0	71.0	71.6	71.7	2.1
25	Belgium	69.9	69.9	70.8	71.0	71.0	71.0	71.4	71.6	1.7
	Germany	70.2	70.2	70.9	71.0	71.0	71.0	71.3	71.6	1.4
27	Slovenia	67.7	67.7	69.2	70.0	70.0	70.0	70.2	70.5	2.8
28	Chile	68.6	68.6	68.9	70.0	70.0	70.0	69.6	69.7	1.1
29	Czechia	67.0	67.0	68.1	69.0	69.0	69.0	68.8	69.3	2.3
30	Croatia	66.6	66.6	67.9	68.0	68.0	68.0	68.4	69.0	2.4
31	Poland	66.3	66.3	67.3	67.0	67.0	67.0	68.1	68.5	2.2
	United States	67.9	67.9	68.7	70.0	70.0	70.0	68.6	68.5	0.6
33	Slovakia	65.8	65.8	66.8	67.0	67.0	67.0	68.0	68.3	2.5
34	Estonia	64.4	64.4	66.7	67.0	67.0	67.0	68.0	68.2	3.8
35	Mexico	66.2	66.2	66.5	67.0	67.0	67.0	67.4	67.7	1.5
36	Hungary	64.6	64.6	65.6	66.0	66.0	66.0	66.4	66.8	2.2
37	Romania	64.0	64.0	65.2	66.0	66.0	66.0	66.3	66.6	2.6
38	Bulgaria	64.7	64.7	65.7	66.0	66.0	66.0	66.2	66.4	1.7
39	Latvia	62.8	62.8	64.6	65.0	65.0	65.0	65.9	66.2	3.4
40	Lithuania	62.8	62.8	64.5	65.0	65.0	65.0	65.5	66.1	3.3
41	Turkey	62.6	62.6	64.4	65.0	65.0	65.0	65.6	66.0	3.4
										0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

Bertelsmann Stiftung

Source: WHO & UN.

risk over the medium and long term, as a consequence of the aging population and the subsequent increase in the incidence of chronic diseases."<sup>147</sup>

For Italy, which can in principle guarantee good-quality and inclusive health care, the experts point to the fact that there are profound differences in quality between the regions: "Italy's national health system provides universal comprehensive coverage for the entire population. The health care system is primarily funded by central government, though health care services and spending are administered by regional authorities. On average, the services provided achieve medium to high standards of quality. [...] However, due to significant differences in local infrastructures, cultural factors, and the political and managerial proficiency of local administrations, the quality of public health care varies across regions. In spite of similar levels of per capita expenditure, services are generally better in northern and central Italy than in southern Italy. In some areas of the south, corruption, clientelism and administrative inefficiency have driven up health care costs. In these regions, lower quality levels and typically longer waiting lists mean that wealthier individuals will often turn to private sector medical care. Regional disparities also lead to a significant amount of health tourism heading north. Early moves in the direction of fiscal federalism are now stimulating efforts to change this situation through the introduction of a system of national quality standards (correlated with resources), which should be implemented across regions. Preventive health care programs are effective and well publicized in some regions (e.g., Tuscany, and other northern and central regions). However, such programs in other regions (e.g., Sicily) are much weaker and less accessible to the average health care user. To contain further increases in health care costs, payments to access tests, treatments and drugs exist. Even if these payments are inversely linked to income, they nevertheless discourage a growing number of the poorest from accessing necessary health care services. Similarly, additional medical services are only partially covered by the public health care system, while only basic dental health care is covered."148.

The experts draw similar conclusions for Iceland, which features the lowest child mortality rate: "On average, the health care system in Iceland is efficient and of a high quality. Iceland has one of the highest average life expectancy rates in the world. However, there is considerable variation across regions. For example, health care services in Reykjavík and its surroundings as well as the northern city of Akureyri are much better than in more peripheral areas where patients have to travel long distances to access specialized services. After the 2008 economic collapse, substantial cutbacks for a number of regional hospitals were introduced, closed departments, and centralized specialized care facilities. In addition, smaller regional hospitals and health care centers have consistently faced serious problems in recruiting doctors."<sup>149</sup>

One observation made by many country experts is the rapid growth of private sector activity in health care, which undermines the principle of inclusive health care. The country experts for Belgium note this trend with concern and attribute it to a growing undersupply of physicians: "In Belgium, public (or publicly funded)

<sup>147</sup> Kölling, Molina and Colino (2019), available at www.sgi-network.org.

<sup>148</sup> Cotta, Maruhn and Colino (2019), available at www.sgi-network.org.

<sup>149</sup> Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org.

hospitals own and maintain good equipment, and university hospitals offer advanced treatments, given the institutions' participation in medical research. Coverage is broad and inclusive. Access to health care is quite affordable, thanks to generous subsidies. Belgium fares quite well in terms of the efficiency of its health care system. It ranks close to Sweden, which is often considered to be a benchmark of efficiency with regard to affordable access to health care. A problem is that costs have been contained by reducing wages and hospital costs in ways that do not seem viable in the long run, particularly given the aging population. Too few graduate doctors are allowed to practice, and the short supply of doctors is increasingly translating into abusive and underpaid or unpaid working hours (totaling 70-100 hours per week) for young graduates. Such bottlenecks may compel an increasing number to leave the public system and the constraints imposed by state subsidies, and move to fully private practices. As a result, inclusiveness is under threat in the medium term and already a challenge in some rural areas. Another issue is that Belgium does not emphasize prevention sufficiently, and spends more than similar countries on subsidized drugs. This has generated a structural increase in health policy costs and hampers lasting sustainability within the health care system. Recently, entire areas of state competences regarding health care have been devolved to the regions (Wallonia, Flanders and Brussels) with the aim of increasing local accountability. However, this risks a loss of coordination and increased costs (e.g., excess spending on medical equipment) in a country where regions are so small that patients may easily move between regions, and the resulting competition may lead to excess spending. There is also a risk of losing management competence, as the pool of ministers and experts is considerably smaller in the regions than in the country as a whole."150

In Sweden, where health care performance has been deteriorating since the SJI 2009, we already see such a trend toward greater reliance on private health insurance. Although public health care remains largely inclusive and of good quality, the country struggles with providing quick and effective access to health care. The country experts describe the circumstances as follows: "These weaknesses may be the consequence of far-reaching privatization measures during the most recent past. The Health and Social Care Inspectorate, was created in 2013 to address problems with administrative oversight of the health care sector. The general account of Swedish health care is that once you receive it, it is good. Regional governments ("landsting") provide health care, allocating about 90% of their budgets to this purpose. Health care is divided into primary care, which is delivered locally (albeit under the auspices of regional government), and advanced care, which is provided by the hospitals. [...] From the patient's perspective, a key problem is accessibility. Patients in need of care are to make an appointment with the primary health care provider, not with a hospital, but even primary care often struggles to meet with patients. Referrals to specialists may offer the patient an appointment with a medical doctor in weeks or even months. Partly as a result of these problems, a rapidly increasing number of people in Sweden purchase private health insurance. Estimates in 2018 suggest that more than 650,000 Swedes have a private health insurance policy, either purchased privately or, more common, provided by the employer. The rapidly increasing number of private health insurance policies clearly suggests a lack of faith in the expediency and quality of public health care."151

<sup>150</sup> Castanheira, Benoît and Bandelow (2019), available at www.sgi-network.org 151 Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

#### FIGURE 49 Out-of-pocket Expenses\*

Unit: Percentage of Total Current Healthcare Expenditure

	U			S	ocial Jus	tice Inde	x			
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	France	9.3	10.1	10.1	10.0	9.9	9.8	9.8	9.8	0.5
2	United States	13.4	12.5	12.0	11.9	11.5	11.1	11.1	11.0	-2.5
3	Luxembourg	10.3	9.9	10.4	10.3	10.8	11.0	11.2	11.2	0.9
4	Netherlands	8.7	9.7	10.4	11.7	12.2	11.6	11.5	11.2	2.5
5	Slovenia	13.6	12.8	12.5	12.5	13.0	12.5	12.0	12.0	-1.6
6	Germany	14.3	13.8	13.9	13.0	12.6	12.7	12.4	12.0	-2.3
7	Japan	15.5	15.2	13.0	12.7	12.9	12.9	12.9	12.9	-2.6
8	Ireland	11.6	12.7	13.6	14.1	14.2	13.6	13.0	13.0	1.4
9	New Zealand	11.5	12.4	12.3	12.4	12.9	13.4	13.6	13.6	2.1
10	Denmark	14.6	13.7	14.2	13.8	13.8	13.7	13.7	13.7	-0.9
11	Norway	16.1	15.3	14.8	14.6	14.4	14.1	14.5	14.6	-1.4
12	Canada	15.5	15.0	14.6	14.5	14.5	14.5	14.6	14.8	-0.8
13	Czechia	13.6	15.1	15.3	13.6	14.1	13.7	15.0	15.0	1.4
14	United Kingdom	10.4	9.4	9.7	14.8	14.7	14.9	15.1	15.1	4.7
15	Sweden	16.9	16.9	15.4	15.5	15.5	15.5	15.2	15.1	-1.8
16	Croatia	12.8	12.8	12.8	12.8	15.8	15.5	15.4	15.4	2.5
17	Belgium	18.7	17.6	17.3	17.5	17.1	16.5	15.9	15.9	-2.8
18	Iceland	16.0	16.6	18.6	18.3	18.0	17.6	16.9	16.3	0.2
19	Turkey	23.9	14.5	15.9	16.9	17.7	16.9	16.5	16.5	-7.4
20	Slovakia	27.4	22.4	23.2	23.3	18.0	18.4	17.8	17.8	-9.5
21	Australia	19.0	19.1	19.9	19.7	19.6	18.9	18.9	18.9	-0.1
22	Finland	19.8	19.4	18.7	19.0	19.0	19.7	20.4	20.4	0.5
23	Romania	24.3	24.3	22.4	20.2	20.3	21.3	20.8	20.8	-3.5
24	Estonia	22.2	20.3	21.5	22.6	22.6	22.8	22.7	22.3	0.1
25	Poland	26.3	24.4	24.3	23.6	23.1	23.2	22.9	22.6	-3.7
26	Israel	26.6	25.3	23.3	22.5	22.8	22.7	23.0	23.0	-3.6
27	Italy	21.5	20.7	21.7	21.8	22.1	23.1	23.1	23.6	2.0
28	Spain	21.0	19.5	22.8	24.0	24.4	23.8	23.8	23.8	2.8
29	Austria	18.8	18.1	18.7	19.2	19.1	19.0	18.9	25.7	6.9
30	Portugal	25.7	24.6	28.2	27.0	27.7	27.7	27.8	27.2	1.6
31	Switzerland	29.7	28.8	28.8	28.3	29.2	29.1	29.6	29.6	-0.2
32	Hungary	26.3	26.2	29.4	28.4	28.3	28.9	29.7	29.7	3.4
33	Lithuania	28.4	26.8	31.8	32.8	31.5	31.8	32.3	32.3	3.9
34	Chile	39.2	34.6	33.4	32.9	32.7	32.2	32.1	32.6	-6.6
35	Korea	36.7	35.0	35.0	34.6	34.3	34.0	33.3	34.3	-2.5
36	Greece	39.4	29.3	30.1	33.7	36.6	36.2	34.3	34.3	-5.0
37	Malta	36.8	36.8	36.8	36.8	36.8	37.5	37.5	37.5	0.7
38	Mexico	52.5	47.4	42.6	41.3	41.5	41.4	40.4	40.4	-12.1
39	Latvia	36.8	38.8	37.8	38.5	39.1	42.1	44.6	44.6	7.7
40	Cyprus	41.0	41.0	44.0	43.1	44.8	44.3	44.9	44.9	4.0
41	Bulgaria	44.5	44.5	47.7	47.2	45.8	47.7	48.0	48.0	3.5
										0 5 10 15 20 25 30 35 40 45 50 55

\*The authors are aware of the weaknesses of the out-of-pocket expenses indicator and the debate over what constitutes a health issue. Although the data are not perfectly harmonized, this indicator is essential because it addresses the key aspect of restricted access to health care.

Source: OECD & Eurostat.

Bertelsmann Stiftung

### FIGURE 50 Perceived Health Status, by Income Quintile

Unit: Ratio

						tice Inde				
Rank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	New Zealand	0.96	0.96	0.93	0.96	0.96	0.95	0.96	0.98	0.
2	Greece	0.78	0.77	0.93	0.91	0.90	0.93	0.92	0.91	0.13
	Italy	0.76	0.81	0.86	0.86	0.88	0.90	0.91	0.91	0.15
4	Australia	0.81	0.81	0.89	0.91	0.91	0.91	0.90	0.90	0.09
	Israel	0.87	0.90	0.88	0.92	0.93	0.94	0.90	0.90	0.03
6	Mexico	0.86	0.87	0.81	0.72	0.78	0.96	0.89	0.89	0.03
7	France	0.82	0.86	0.84	0.82	0.83	0.85	0.87	0.87	0.05
8	Canada	0.81	0.82	0.83	0.84	0.84	0.85	0.86	0.86	0.05
	Luxembourg	0.80	0.83	0.86	0.86	0.80	0.88	0.86	0.86	0.06
10	Spain	0.74	0.78	0.84	0.89	0.90	0.87	0.85	0.84	0.10
11	Iceland	0.82	0.91	0.86	0.84	0.82	0.83	0.83	0.83	0.01
	Turkey	0.78	0.78	0.79	0.78	0.79	0.84	0.83	0.83	0.05
13	Romania	0.85	0.98	1.00	0.99	1.01	0.96	0.89	0.82	┥-0.03
14	Norway	0.81	0.78	0.80	0.81	0.81	0.80	0.81	0.81	0.00
15	Denmark	0.81	0.79	0.82	0.83	0.84	0.79	0.79	0.79	-0.02
	Ireland	0.80	0.84	0.85	0.83	0.78	0.77	0.79	0.79	-0.01
17	Slovakia	0.73	0.78	0.79	0.81	0.79	0.80	0.78	0.78	0.05
18	United States	0.77	0.77	0.76	0.77	0.77	0.77	0.77	0.77	0.00
19	Switzerland	0.80	0.78	0.78	0.75	0.78	0.78	0.76	0.76	-0.04
20	Austria	0.70	0.68	0.74	0.74	0.72	0.78	0.78	0.75	0.05
	Cyprus	0.59	0.66	0.77	0.73	0.80	0.78	0.75	0.75	0.16
	Sweden	0.76	0.77	0.78	0.79	0.77	0.74	0.77	0.75	-0.01
	United Kingdom	0.76	0.78	0.73	0.74	0.73	0.72	0.75	0.75	-0.01
24	Netherlands	0.76	0.77	0.79	0.77	0.75	0.75	0.73	0.74	0.02
25	Chile	0.64	0.71	0.78	0.78	0.68	0.68	0.72	0.72	0.08
26	Japan	0.68	0.68	0.71	0.71	0.71	0.71	0.71	0.71	0.03
20	Hungary	0.81	0.85	0.75	0.75	0.72	0.71	0.74	0.70	-0.11
28	Finland	0.67	0.72	0.63	0.68	0.68	0.68	0.69	0.68	0.01
20				0.67	0.68	0.66	0.67	0.69	0.67	0.02
	Belgium	0.65	0.66							
29	Malta	0.66	0.74	0.76	0.71	0.65	0.65	0.67	0.67	0.01
31	Bulgaria	0.60	0.62	0.65	0.80	0.65	0.74	0.65	0.66	0.06
	Poland	0.79	0.74	0.78	0.75	0.74	0.72	0.67	0.66	
33	Slovenia	0.55	0.60	0.68	0.71	0.72	0.69	0.67	0.64	0.09
34	Germany	0.67	0.67	0.66	0.66	0.64	0.65	0.63	0.63	-0.04
35	Korea	0.71	0.80	0.74	0.68	0.69	0.76	0.62	0.62	-0.09
36	Portugal	0.55	0.53	0.66	0.64	0.64	0.60	0.63	0.59	0.04
37	Croatia	0.51	0.51	0.58	0.66	0.60	0.61	0.58	0.56	0.05
38	Czechia	0.61	0.66	0.62	0.60	0.60	0.56	0.52	0.50	-0.11
39	Estonia	0.38	0.52	0.49	0.46	0.45	0.42	0.42	0.42	0.04
40	Lithuania	0.51	0.78	0.59	0.59	0.54	0.43	0.40	0.40	-0.11
41	Latvia	0.38	0.62	0.59	0.49	0.47	0.40	0.41	0.35	-0.03

Bertelsmann Stiftung

Source: Eurostat & OECD.

Lower income groups are generally denied the advantages of private health care. In Chile, which ranks fourth-to-last in the SJI's health ranking in large part due to its poor performance in providing good-quality and inclusive health care, an additional problem highlighted by the experts is the fact that women bear considerably more in terms of health care costs than do men: "For more than three decades, Chile has maintained a dual health system, with one pillar represented by private insurance and private health care services chosen by self-financing participants (typically upper middle-income and high-income groups), and another pillar of public, highly subsidized insurance and public health care services for participants who pay only part of their health costs. This system provides broad coverage to most of the population, but with large differences in the quality of health care provision (especially in the waiting times for non-emergency services). [...] There is still a huge gender gap with regard to health care contribution rates, since maternity costs are borne only by women. For these reasons, the quality and efficiency of public health care provision (government clinics and hospitals) vary widely."152

In many countries, high levels of private health care spending further exacerbate inequalities in health care. In France, where people are least likely to pay themselves for health care, out-of-pocket expenses account for 9.8% of total health care spending. The situation is similar in Luxembourg, the Netherlands, Slovenia, Germany and the USA. In Mexico, Latvia, Cyprus and Bulgaria, expenditure is higher than 40% for private households. In these countries, low-income earners are particularly at risk of not having access to adequate health care, which also increases the risk of social exclusion. The experts for Latvia, which comes last in this year's health ranking, describe the numerous problems with Latvia's health system. "The substantial challenges remain, including disproportionately high out-of-pocket expenses (one in five people report foregoing health care due to cost), and long waiting times for key diagnostic and treatment services. Mortality rates for men, women and children are higher than in most other EU member states. Latvia also lags behind in the development of evidence-based reform proposals. [...] Until recently, Latvia had universal health care insurance and a single payer system financed through general taxation. However, healthcare reforms were introduced in 2017 (with a planned transition period in 2018) to address the issues highlighted. This comprehensive healthcare reform aims to introduce a healthcare insurance component and to separate the provision of public health services into two "baskets," specially a full basket available to persons paying social security contributions or defined as vulnerable (e.g., children and pensioners), and a "minimum basket" that provides a reduced set of health care services for people who do not pay social security contributions. Although the health care reform can be seen as timely, it has stalled. Its success in improving the quality and availability of healthcare services will depend on how efficiently the resources are used."153

The problems in Latvia are also reflected in the fact that people with lower incomes in the country are 60% less likely than people from high-income groups to perceive their health as very good or good. Inequalities in health care can be

<sup>152</sup> von Knebel, Zilla and Thunert (2019), available at www.sgi-network.org. 153 Mangule, Auers and Jahn (2019), available at www.sgi-network.org

seen in the large gaps found between upper and lower income groups in terms of their perceived state of health. Comparatively speaking, people with lower incomes in Lithuania and Estonia also less often describe their health status as good or very good. However, it would be a mistake to assume that differences in perceived health status by income groups are found only in countries with problems in ensuring fair access to health care. In Finland and Germany, which both feature fundamentally sound and inclusive health systems, the answers regarding perceived health status also differ considerably by income group. This gap is by contrast most narrow in New Zealand, Australia, Greece and Italy. In New Zealand, people in lower-income groups report 4% less often that they are in good or very good health.

# III. Concept and Methodology

"Social justice" is a central constitutive element of the legitimacy and stability of any political community. Yet defining what social justice means and how best to achieve it is often subject to considerable controversy. The conceptual boundaries of social justice are continually in flux because the idea is a result of culturally and historically dependent value systems. Nevertheless, a modern concept of social justice that refers to the aim of realizing equal opportunities and life chances provides us a conceptual ideal able to garner the consensus needed for a sustainable social market economy. This paradigm suggests that establishing social justice depends less on compensating for exclusion than it does on investing in inclusion. Instead of an "equalizing" distributive justice or a simply *formal* equality of life chances in which the rules of the game and codes of procedure are applied equally, this concept of justice is concerned with guaranteeing each individual *genuinely* equal opportunities for self-realization through the targeted investment in the development of individual "capabilities."<sup>154</sup>

Thus, within the scope of his or her own personal freedom, every individual should be empowered to pursue a self-determined course of life, and to participate in society more broadly. Specific social backgrounds, such as membership in a particular social group or demographic category would not, according to this concept of social justice, be allowed to negatively affect one's opportunities to succeed in life.<sup>155</sup> By focusing on opportunities for self-realization, such a concept avoids the blind spots of an efficient market-driven, simply formal procedural justice on the one hand and a compensatory distributional justice on the other, and thus ultimately establishes a bridge between rival political ideologies.<sup>156</sup>

154 See Sen (1993; 2009); Merkel (2001; 2007); Merkel and Giebler (2009), pp. 192–194.

156 See Vehrkamp (2007), p. 11.

<sup>155</sup> See Rawls (1971); on the underlying principles of "equal opportunity" see Roemer (1998: 1), who distinguishes between a "level-the-playing-field principle" and a "nondiscrimination principle": "An instance of the first principle is that compensatory education be provided for children from disadvantaged social backgrounds, so that a larger proportion of them will acquire skills required to compete, later on, for jobs against persons with more advantaged childhoods. An instance of the second principle is that race or sex, as such, should not count for or against a person's eligibility for a position, when race or sex is an irrelevant attribute insofar as the performance of the duties of the position is concerned." The concept of social justice applied in the present report covers both principles. It is important to note that the concept of social justice employed here emphasizes less the principle of equality per se than it does the principle of individual freedom, which can be exercised only when the state and a society establish the most level playing field possible for the pursuit of life chances. See in this regard Merkel and Giebler (2009: 193–195).

Government policies of redistribution function as an instrument of social justice and are conceived in terms of an investment rather than compensation. Within the conceptual framework of economic and social participation, redistributing resources within a community are a legitimate, if not essential, means of empowering all to take advantage of the opportunities around them. In this sense, social justice can be understood as a guiding principle for a participatory society that activates and enables its members. A sustainable social market economy able to combine the principles of market efficiency with those of social justice requires the state to take on a role that goes beyond that of a "night watchman." It requires a strong state led by actors who understand the need for social equity as a means of ensuring participation opportunities.

The Social Justice Index presented here is informed by this paradigm and encompasses those areas of policy that are particularly important for developing individual capabilities and opportunities for participation in society. In addition to the fundamental issue of preventing poverty, the Social Justice Index explores areas related to an inclusive education system, labor market access, social inclusion and non-discrimination, health and intergenerational justice.

The SJI links features of social justice with specific indicators to deliver a conceptually cohesive and empirically meaningful *overall* ranking of all OECD and EU member states and measures on a regular basis the progress made and the ground lost on issues of social justice. Raising public awareness of developments in social justice is instrumental to creating genuine political leverage that is capable of affecting change. Regular benchmarking in the form of a clearly communicable ranking can be of great help in this matter. The Social Justice Index ought to function as an illustrative example of how this can be achieved.

The following section explains the methodology underlying the Social Justice Index and its features. The index is based on quantitative and qualitative data collected by the Bertelsmann Stiftung within the framework of its SGI project (www.sgi-network.org). The SGI survey (eighth edition published in October 2019), which draws on 145 indicators, provides a systematic comparison of sustainable governance in 41 OECD and EU member states. Individual SGI indicators have been selected and aggregated for use in the Social Justice Index following a tested procedure for measuring social justice.<sup>157</sup>

Clearly, no set of indicators can be expected to fully represent the complexity of social reality on the ground. Creating an index involves, by definition, the condensation of vast amounts of information. It also demands, at times, that pragmatic decisions be made when selecting indicators, given the limitations set by the availability of comparable data. In-depth case studies of specific countries are therefore required in order to provide a thicker description of the state of affairs in each policy area while at the same time ensuring that findings are properly contextualized.

<sup>157</sup> The approach and procedure used here is derived from Merkel (2001; 2007) and Merkel and Giebler (2009).

## **Concept and indicators**

Drawing upon Wolfgang Merkel's conceptual and empirical groundwork, we can differentiate several dimensions for measuring the construct of social justice.<sup>158</sup> The Social Justice Index is composed of the following six dimensions: poverty prevention, access to education, labor market inclusion, social cohesion and non-discrimination, health, as well as intergenerational justice.

As a cross-national survey, the Social Justice Index comprises 38 quantitative and eight qualitative indicators, each associated with one of the six dimensions of social justice.<sup>159</sup> Since the indicators, data and country selection have been revised for the 2019 Index, the rankings and scores are not comparable with previous editions. Therefore, a change in a country's ranking does not necessarily signify a change in its Social Justice performance. The data for the quantitative indicators used in the Social Justice Index is drawn primarily from Eurostat, the OECD, the World Bank, the IMF and WHO, among others. The qualitative indicators reflect the evaluations provided by more than 100 experts responding to the SGI's survey of the state of affairs in various policy areas throughout the OECD and EU (see <u>www.sgi-network.de</u>). For these indicators, the rating scale ranges from 1 (worst) to 10 (best).<sup>160</sup> In order to ensure compatibility between the quantitative and qualitative indicators, all raw values for the quantitative indicators undergo linear transformation to give them a range of 1 to 10 as well.<sup>161</sup>

According to Merkel and Giebler (2009), the first three dimensions, that is, poverty prevention, access to education and labor market access, carry the most conceptual value, which is why they are each weighted more heavily when calculating index scores. For the purposes of comparison, in addition to the weighted Social Justice Index, a non-weighted ranking was created in which the six dimensions were given equal weight.<sup>162</sup> The findings discussed here derive from the weighted Social Justice Index.

The effective prevention of poverty plays a key role in measuring social justice. Under conditions of poverty, social participation and a self-determined life are possible only with great difficulty. From the perspective of social justice, preventing poverty and social exclusion is in a certain sense a sine qua non for social justice, and thereby takes precedence over the other dimensions. For this reason, the dimension of poverty prevention is weighted most strongly – in this case, given triple weight – in the overall ranking.

<sup>158</sup> The methods of measuring social justice applied here are derived from those applied by Merkel (2001; 2007) and the approach and argument provided by Merkel and Giebler (2009). In contrast to Merkel and Giebler (2009), the index comprises six instead of seven dimensions to be measured. In addition, the weighting process and indicator set have been modified and supplemented. We are indebted to Dr. Margit Kraus (Calculus Consult) for providing important advice and feedback on statistical and technical issues, imputing missing values, and constructing Excel sheets for the aggregation of scores.

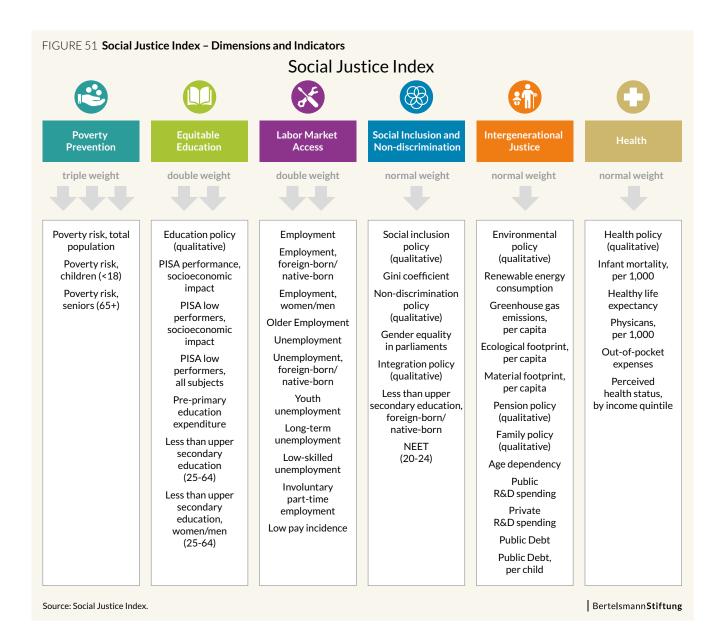
<sup>159</sup> A full list and description of individual indicators is provided in the appendix.

<sup>160</sup> For details see Seelkopf and Schraad-Tischler (2015) "Concept and Methodology – Sustainable Governance Indicators 2015", available at www.sgi-network.org

<sup>161</sup> The period under review for the Sustainable Governance Indicators 2019 survey was from November 2017 to November 2018. The raw data for the Social Justice Index is provided in the appendix. In order to ensure comparability over time, we use the SGI's method of fixed minimum and maximum values for each indicator. See section 3 "Standardization and Transformation."

<sup>162</sup> See Table 1 in the appendix, p. 208.

The SJI therefore draws on the share of people whose incomes fall below the poverty line in order to assess how well a country manages to prevent poverty. These figures are based on the OECD's income poverty indicator, which sets the threshold for poverty at 50% of the median equivalized disposable income of the entire population, which includes market earnings and income from capital (after taxes and social transfers). In addition, age groups particularly at risk of poverty are accorded special attention, which is why poverty rates for children (0-17 years of age) and the elderly (over 65) are also considered in the analysis. <sup>163</sup>



163 Gaining comprehensive insight into a nation's efforts to combat poverty requires measuring non-monetary poverty as well. Given the lack of complete and consistent OECD data on poverty, indicators addressing this issue, such as "severe material deprivation" as measured by Eurostat, could not be integrated into the set. The same applies to the share of people "at risk of poverty or social exclusion".

Equal access to good-quality education is another essential factor in providing equitable capabilities and opportunities for advancement (vertical mobility). Social, political and economic participation depends in large part on this public good. To this end, the state must take care that genuinely equal educational opportunities are available to every child. Social or cultural background must not be allowed to adversely affect educational success. The importance of such conditions is emphasized in the Social Justice Index by doubly weighting the access to education dimension. This dimension considers efforts to provide pre-primary education, the extent to which socioeconomic background affects students' academic success and learning difficulties in particular. It also includes the share of students showing overall low academic performance. Each of these factors are based on the most recently available PISA data. In addition, the rate of people aged 25 to 64 with less than upper-secondary educational attainment is included in the calculation, as is the ratio of women to men with less than upper-secondary education. Finally, an expert assesses the state of educational policies, focusing particularly on the provision of high-quality education and equitable access opportunities.

Assuring equity in education opportunities is primarily an ethical imperative, since weak access to education and social poverty generate a vicious circle in which those lacking education access are denied opportunities for social betterment, and the socially disadvantaged are denied access to education. Breaking this vicious circle is a matter of solidarity and key to maintaining the social fabric of society. At the same time, it makes good economic sense to nourish and apply the talents and abilities of everyone in society, as much as is possible.

The labor market's degree of inclusiveness is likewise of considerable importance to social justice. Exclusion from the labor market substantially limits individual opportunities for self-realization, facilitates the risk of poverty, and can even lead to serious health issues: "So long as gainful employment remains the primary means by which not only income, but also status, self-respect and social inclusion are distributed in developed societies, inclusion in the labor market must be a high priority for a just society" (Merkel and Giebler 2009: 198). This dimension is therefore also counted doubly in the overall ranking. In order to do even rudimentary justice to the complexity of this dimension, eleven indicators were used to capture a deeper understanding of employment and unemployment. Alongside the overall employment rate, the rates for 55- to 65-year-old workers, for foreign-born workers as compared to natives, and for women as compared to men are each considered. The labor market inclusion dimension also examines the overall unemployment rate and is supplemented by both the long-term unemployment rate and the degree of labor market exclusion experienced by young and low-skilled workers alike. The dimension also takes into account the ratio of foreign-to-native born people in terms of unemployment. Finally, two indicators addressing the problem of precarious employment are also included: the percentage of people working in the low-wage sector and of those involuntarily employed on a part-time basis.

The dimension of social inclusion and non-discrimination examines the extent to which trends toward social polarization, exclusion and the discrimination of specific groups are successfully countered. This dimension is factored into the Social Justice Index with a normal weight. Income disparities, measured in terms of the Gini coefficient, are taken into account here as a potentially important factor of social polarization. However, from a social justice theory perspective, the issue of income inequality carries less conceptual salience relative to the first three dimensions of justice – namely poverty prevention, access to education and labor market inclusion.<sup>164</sup> This dimension includes three qualitative indicators, each based on expert assessments. One of these indicators assesses how effectively social policies preclude social exclusion, a second examines how effectively the state protects against discrimination based on gender, physical ability, ethnic origin, social status, political views or religion, and a third evaluates how effectively policies support the integration of migrants into society. The latter question covers integration-related policies comprising a wide array of cultural, education and social policies insofar as they affect the status of migrants or migrant communities in society. In order to further evaluate the level of integration, the ratio of foreign-to-native-borns with less than upper-secondary education is included. To capture progress made in terms of gender equality, the number of seats in national legislatures held by women compared to the number of seats held by men is also considered. Finally, the so-called NEET rate, which refers to the number of young persons aged 20 to 24 who are not in education, employment or training and therefore face limited opportunities of economic and societal participation, is also factored into this dimension.

The fifth dimension of the Social Justice Index approaches the issue of intergenerational justice. The issue at stake here is the need for contemporary generations to lead lives they value without compromising the ability of future generations to do the same. Intergenerational justice thus takes the temporal aspect of sustainability and justice into consideration. This dimension, which is factored into the index with a simple weight, is comprised of three components.

The first component addresses policy support for both younger and older generations. The former is captured through the SGI's qualitative "family policy" indicator, the latter through the "pension policy" indicator, which is also qualitative. In order to reflect each country's specific demographic challenge due to declining birth rates and increasing life expectancy, the old-age dependency ratio, which is the number of people in retirement per 100 people in working age, is also included.

The second component focuses on the idea of environmental sustainability and measures this with the help of a qualitative indicator for environmental and resource protection policy and through four quantitative indicators. The first two quantitative indicators are greenhouse gas emissions in  $\rm CO_2$  equivalents per capita and the share of energy from renewable resources in gross final energy consumption. The third – "ecological footprint" – indicator, assesses the pressure put by human demands on nature, and is measured by comparing the level of consumption of natural resources with biocapacity, thus providing information on the extent to which the natural ability to regenerate is exceeded by human demand. The fourth – "material footprint" – indicator provides information on the consumption of non-renewable resources by measuring not only the amount of material extracted from biomass but also fossil fuels, metal ores and non-metal ores.

164 See Merkel and Giebler (2009), pp. 199-200.

The third component, which is concerned with economic and fiscal sustainability, is comprised of four quantitative indicators. The first two highlight public and private spending on research and development as an investment in future prosperity, and the last two point to national debt levels by GDP and per child as a mortgage to be possibly paid by younger and future generations.

The sixth dimension of the Social Justice Index covers questions of equity in the area of health. In 2008, the World Health Organization's Commission on Social Determinants of Health pointed to dramatic differences in health within and between countries that are closely linked with degrees of social disadvantage: "These inequities in health, avoidable health inequalities, arise because of the circumstances in which people grow, live, work and age, and the systems put in place to deal with illness. The conditions in which people live and die are, in turn, shaped by political, social and economic forces. Social and economic policies have a determining impact on whether a child can grow and develop to its full potential and live a flourishing life, or whether its life will be blighted."165 Given these considerations, an assessment of social justice cannot exclude the issue of health. However, identifying meaningful indicators for which data is available for all OECD and EU states is not an easy task. Nevertheless, there are some indicators giving us at least a basic impression of differing degrees of fairness, inclusiveness and quality between the OECD and EU countries' health systems. We use five quantitative indicators and one qualitative indicator. The qualitative indicator from our SGI survey assesses to what extent policies provide high-quality, inclusive and cost-efficient health care. The rationale behind the question is that public health care policies should aim at providing high-quality health care for the largest possible share of the population, at the lowest possible costs. Of the three criteria - quality, inclusiveness and cost efficiency - quality and inclusiveness are given priority over cost efficiency. Additionally, the quantitative indicator "healthy life expectancy at birth" and the "infant mortality rate" address the current state of health among a country's citizens. In order to determine the impact of income on health status, we look at the ratio between low-income and high-income groups with regard to health status perceived as good or very good. Given that equitable access to health care plays a particularly important role in terms of social justice, the out-of-pocket expenses for medical care, seen as an income-related barrier to good health care, is examined. Also, the number of practicing physicians per 1,000 inhabitants offers insight into a country's health care infrastructure. In this respect, it should be stressed that rural areas in particular are affected by a lower density of doctors.<sup>166</sup> As inequalities in health can be seen as being strongly determined by misguided developments in other areas, such as poverty prevention, education or the labor market, the health dimension is factored into the index with a normal weight.

In choosing the indicators to be included in the SJI, data availability and data quality proved to be a limiting factor. Certain indicators with relevance for the SJI – such as the gender pay gap – had to be left out either because of insufficient available data or because there were problems of data comparability between different sources.

<sup>165</sup> See WHO (2008), Closing the Gap in a Generation.

<sup>166</sup> The authors are aware of the weaknesses of the data for the indicator physicans per 1,000 inhabitants. In particular, the values for Greece and Portugal are problematic, since both countries include non-practicing physicians in their data. See OECD (2017), Health at a Glance 2017, p. 94.

### Handling missing values

Time series data for several quantitative indicators are incomplete. Data may be missing for some reporting years only, or in some cases, no data may be available for a specific country throughout the entire time series. As the calculation of the SJI requires a complete set of datapoints for each SJI data wave, these missing data points have to be replaced. To deal with the problem of missing values, the following methods have been adopted.

If data is unavailable only for some reporting years, the missing value is replaced by the value of the preceding year. For example, if for a given country no data is available for the year 2012, the missing value is replaced using data for the year 2011 or, if also unavailable, data for a year further back in time are used. If no earlier data is available, data for more recent years are used. For example, if for a country no data for the year 2012 or earlier years are available, these missing values are replaced with data for the year 2013, or, if also unavailable, with data for more recent years.

If there is no data at all for a given country and for any point in the time series, the missing values are imputed using a full estimation maximum likelihood (FIML) approach, as recommended by the EU Commission (OECD/EU/JRC 2008). The FIML approach maximizes the sample log-likelihood function in order to estimate the regression parameters, meaning that the parameter values found would most likely produce the estimates from the sample data that is analyzed. A FIML approach presupposes that the data follow a multivariate normal distribution, and that the missing data is either missing completely at random (MCAR), indicating that "missingness" is not related to any other variable, or missing at random (MAR), indicating that it is possible to control for the factors of "missingness ((OECD/EU/JRC 2008). This approach was chosen for its merit of being a comprehensive, well-designed and scientifically recognized method of imputation. The FIML approach was first introduced by Hartley and Hocking (1971). FIML is easy to reproduce, since, compared to other methods such as methods of multiple imputation, it requires fewer decisions in the calculation process and produces deterministic results every time the estimation is run.

As a pre-imputation step, indicators and possible explanatory variables are investigated to ensure that the missing data is either MCAR or MAR and thereby meet the necessary requirements for employing conventional imputation methods.

Then, for the purpose of identifying suitable models, several models employing various regressor variables are run. For example, for the purpose of imputing missing values in indicator C10 "Involuntary Part-time Employment," the following regressor variables were considered: The percentage of part-time employees as a share of dependent employees and as a share of total employees, the unemployment rate, the employment rate, and the ILOSTAT-indicator "time-related labor under-utilization rate." Subsequently, a number of scientifically recognized goodness-of-fit and specification tests are performed: The models are checked for omitted variables, multicollinearity, outliers and influential observations, normality and heteroskedasticity. In addition, kernel density functions as well as probability-probability- and quantile-quantile plots are examined. Extreme outliers responsible for violations of the tests and thereby leading to biased estimates are eliminated. Under the assumptions stated above, the ordinary least squares (OLS) estimator is a best linear unbiased estimator (BLUE), and the estimated parameters and predicted values should be identical with those the FIML estimator produces.

Once the best model is determined based on the results of the regression diagnostics, the model is re-run using the FIML approach. For this purpose, the *sem* command in Stata<sup>R</sup> is used. Results are then back-checked comparing them with the previous results of the OLS estimator. The predicted values for the countries with missing values are then used to impute the missing data. Due to the presence of time-related trends in some of the variables, individual estimations are run separately for each SJI edition.

## Standardization and transformation

In order to ensure the comparability of quantitative and qualitative data, all quantitative indicators are standardized using a process of linear transformation onto a scale ranging from 1 to 10. On this scale, higher values indicate better results, lower values worse results for the respective country.

Using the same procedure applied in the SGI, standardization is achieved by adopting fixed boundary values to assure comparability over time and among various subgroups. The minimum and maximum values are calculated according to the so-called 1.5 IQR method, which was developed by Laura Seelkopf and Moritz Bubeck, University of Bremen, for the Bertelsmann Sustainable Governance Indicators (SGI) Project in 2013 (www.sgi-network.org). The idea is to determine boundary values that are valid invariably for all SJI data waves included in a specific SJI publication, which makes it possible to compare different data waves of the indicators. Because the SJI is subject to ongoing refinement and development, these boundary values are calculated for each SJI publication anew. This approach has been chosen to take account of the addition of updated data, retrospective corrections of formerly published data, changes in indicator definitions or data sources, or the addition of new countries. This means that the boundary values calculated are the same for the indicators of all SJI waves included in the same publication, but they may change in year-to-year editions of the SJI.

The method is based on the interquartile range (IQR), the distance between the 75<sup>th</sup> and 25<sup>th</sup> percentile of each indicator. Upper and lower boundaries are calculated by adjusting the upper and lower bounds of the middle 50% of the observations by an amount equal to 1.5 times the interquartile range (1.5\*IQR). We thus obtain the following minima and maxima:

 $x_{\min} = P_{25} - 1.5 * IQR$  $x_{\max} = P_{75} + 1.5 * IQR$ 

where  $P_{25}$  denotes the 0.25 percentile (lower quartile) and  $P_{75}$  denotes 0.75 percentile (upper quartile). The boundaries are calculated using long-term time

series for all countries included in the SJI.<sup>167</sup> The use of the 1.5 IQR method has the advantage of being less dependent on distribution, and ensures that the calculation of the boundaries is not distorted by extreme singular outliers in the data.

In cases where the boundaries calculated using the 1.5 IQR method are below or above natural boundaries of the variables (e.g., 0 or 100% for the poverty rate), they are replaced with the natural boundaries.

Based on the boundaries thus derived, for each SJI wave, all observations are subsequently transformed to a 1 through 10 scale. For this purpose, preliminary scores are first calculated using a linear transformation of the raw data based on the  $x_{min}$  and  $x_{max}$  values determined as described above. The formula differs depending on the nature of the indicator:

If higher values indicate a superior result (as, for example, with the employment rate):

Score =  $1 + 9*(x-x_{\min})/(x_{\max}-x_{\min})$ 

If higher values indicate an inferior result (as, for example with the poverty rate):

Score =  $10 - 9*(x-x_{min})/(x_{max}-x_{min})$ 

This transformation process ensures that for each indicator a higher score indicates a better result with respect to social justice.

As the  $x_{min}$  and  $x_{max}$  values are calculated using the 1.5 IQR method, it is possible that the calculation of the preliminary scores yields scores higher than 10 or lower than 1. In such cases, the preliminary scores are replaced with the maximum or minimum possible SJI score of 10 or 1, respectively. This means that in the final scores, values that lie outside the boundary values can no longer be distinguished.

### Aggregation

All qualitative and quantitative data is eventually subjected to a two-step additive weighting process, and in this way are aggregated into the overall SJI.

First, scores for each SJI dimension are determined on the basis of the qualitative and quantitative indicators. Within each dimension, all indicators (quantitative and qualitative) are equally weighted.

Subsequently, these dimensions are aggregated into the overall SJI by calculating a weighted average of the six dimension scores.<sup>168</sup> In concrete terms, this means that the dimension of poverty prevention is given triple weight in the calculation, and the education and labor market dimensions are double-weighted. The

<sup>167</sup> Due to missing information for some individual countries or years, the time range of the underlying data is not identical for each indicator.

<sup>168</sup> As stated earlier, in addition to this weighted Social Justice Index, for comparison purposes an unweighted Social Justice Index has been calculated in which all dimensions are weighted equally.

dimensions of social cohesion, health and intergenerational justice, on the other hand, are each included and given a simple weight. This two-step process ensures that although each dimension is comprised of a different number of indicators, dimensions with several indicators aren't given excessive weight compared to dimensions with only a small number of indicators. The additive nature of the aggregation process places all variables on the same level and allows them (within their individual aggregation level) to be treated equally and independently of one another. In a world of limited resources and different preferences, this allows for flexibility in developing adaptation strategies. A government that attains good results in all dimensions will, in this way, be assessed comparably to one that sets stronger priorities and thus achieves very good results in some dimensions but merely satisfactory results in others.

# IV. Forty-one country profiles

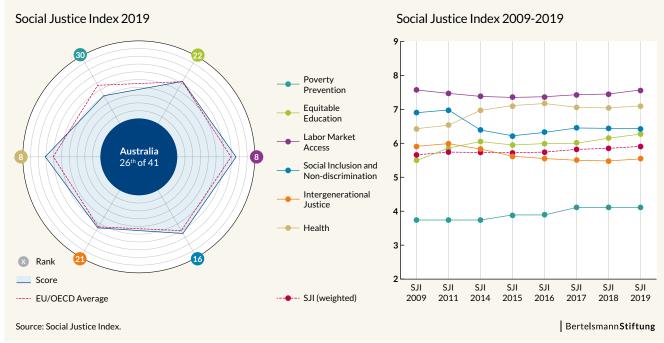
### Australia<sup>169</sup>

Australia's overall score has modestly improved over SJI 2009: 5.91 in 2019. The ten years, however, have witnessed the country surpassed by several peers, placing 26<sup>th</sup> in our current study. Great improvement, and high placement (8<sup>th</sup>), can be found in the Health dimension of our study.

The Australian health care system (a mixture of public and private provision and funding) has yielded demonstrable improvements over the past ten years, with a score of 7.10 in this year's edition. On average, Australians can expect 73.0 years without a limitation in functioning and without disability (rank: 8), nearly 2 years more than in SJI 2009. In line with this improvement, infant mortality has decreased to 3.0 per 1,000 live births. The SGI country experts concur that the "quality of medical care in Australia is in general of a high standard, reflecting a highly skilled workforce and a strong tradition of rigorous and high-quality doctor training in public hospitals." They note that, of the three schemes through which the government funds health care, the Pharmaceutical Benefits Scheme has been the most successful, granting "access to medications at a low unit cost." They do report, however, that with regard to "inclusiveness, significant inequality persists in access to some medical services, such as non-emergency surgery and dental care" and that "indigenous health outcomes are particularly poor."

On intergenerational justice we witness Australia's score moderately worsening (score: 5.54, rank: 21) while many of its peers have surged ahead. Performance across the various quantitative and qualitative indicators of this dimension differ considerably, with several weaknesses and some strengths worth noting. Particularly alarming, government debt has skyrocketed over the past ten years from I\$25,000 to I\$112,000 per child (rank: 16); considered relative to GDP, government debt has increased from 11.75% to 40.67% (rank: 16). Although the share of renewable energy has increased slightly over the past 10 years, with a share of 9.2% (rank: 32) the country remains far below even some of its commonwealth peers (Canada: 22.0% and New Zealand: 30.8%). The SGI country experts note that "energy consumption is generally high" and confirm that, "despite great potential for solar and wind energy, the contribution of renewable energy to the grid remains relatively low." On a positive note, however, the country experts

<sup>169</sup> Quotations in the following section can be found in the Country Report for Australia: Wilkings, Dieter and Croissant (2019), available at www.sgi-network.org.



# Australia

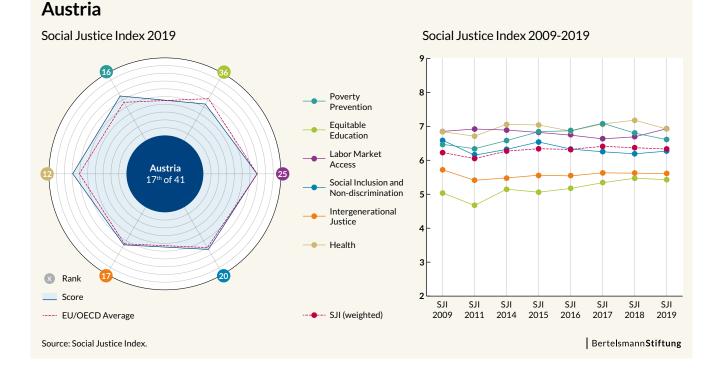
do report a positive development with regard to pension policy, where Australia ranks among the top performing countries: "the gradual nature of the shift since 1992 from a pay-as-you-go public pension toward a private pension system supplemented by a public pension has meant that relatively little inequity has resulted between generations."

## Austria<sup>170</sup>

Austria's overall score has only minorly improved compared to SJI 2009 and it has been overtaken by several peers (e.g., Germany, Poland and the United Kingdom). With a score of 6.33, the country ranks 17<sup>th</sup> in our 41-country survey. Across our six dimensions of social justice Austria scores in the mid-range. The country ranks highest, 12<sup>th</sup>, in the area of equitable access to health care and lowest, 36<sup>th</sup>, on education equity.

Ensuring equitable access to quality health care is an essential pillar of social justice. Austria's score on our Health dimension has remained fairly stable over the ten years. With a score of 6.92, it ranks 12<sup>th</sup> in our current assessment. Austria has the second highest number of practicing physicians: 5.1 per 1,000 inhabitants. Nonetheless, the SGI country experts warn that there is a shortage of physicians, "which is already affecting services in some parts of the country." On average, Austrians can expect 72.4 years without a limitation in functioning and without disability (rank: 15), nearly 2 years more than in SJI 2009. In line with this

<sup>170</sup> Quotations in the following section can be found in the Country Report for Austria: Pelinka, Winter-Ebmer and Zohlnhöfer (2019), available at www.sgi-network.org.



improvement, infant mortality has decreased to 2.9 per 1,000 live births (rank: 13). We do see that the share of health care expenses being shouldered by house-holds has recently increased significantly, from 18.9% in SJI 2018 to 25.7% in our current report. The country experts note that the "development of the health care environment in Austria has echoed overall EU trends. Life expectancy is rising, with the effect that some costs, especially those linked to elderly care, are also going up."

Austria's performance with regard to providing equitable access to education is where it has acutely fallen behind. With a score of 5.43, the country ranks 36<sup>th</sup>. While it's score on this dimension has modestly improved in comparison to ten year ago, it has fallen behind numerous peers. Austria places 34<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. The country experts report that the "Austrian educational system has not fully succeeded in guaranteeing that immigrant children after nine years of schooling are able to read and write German fluently." Today, 14.7% of Austrians lack an upper secondary education (rank: 16), down from 19.1% in SJI 2009. Over the 10 years, we see a closing chasm in educational attainment between women and men, nonetheless the country has the highest disparity in our sample. The country experts note that given "Austria's economic position, the country should have a significantly higher number of university graduates. The reason for this underperformance is seen by research institutions and experts (...) to lie with the early division of children into multiple educational tracks, which takes place after the fourth grade."

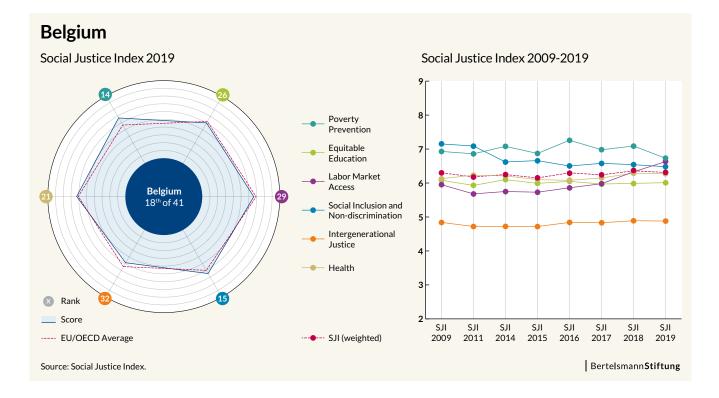
# 142

# Belgium<sup>171</sup>

Belgium's current SJI score of 6.31 places it 18<sup>th</sup> among the countries in our study. Its score has remained roughly stable since 2009, the first SJI assessment year. In the ensuing ten years, however, the country has been surpassed by some of its peers (e.g., Germany, Poland and the United Kingdom). Only in our Poverty Prevention dimension (rank: 14) and Health dimension (rank: 21), do we see Belgium almost holding pace.

Over the 10 years of our survey, Belgium's poverty prevention score has modestly fluctuated. In SJI 2019, it scores 6.73. The current overall population share at risk of poverty, 9.0%, is the highest in ten years and reflects opposing trends in two population groups. A higher share of children and youth (under 18) risk poverty today than 10 years ago: 12.4%, up from 8.9%. In the same period, the share of seniors at risk of poverty has decreased: 5.9%, down from 8.8%. It must also be noted that "foreigners face a higher risk of poverty." The SGI country experts observe that "according to EU–SILC data, the risk of poverty among foreigners is three times higher than for the native-born. This number is larger (four times) when non–EU born are considered."

That opportunities for a quality education are equitably distributed is an indispensable component of social justice, with lifelong consequences. Today, Belgium ranks 26<sup>th</sup>, because it has stood still – a score of 6.01 in SJI 2019 compared to 6.08 ten years earlier – while many peers have surpassed it (e.g., Germany, Swit-



171 Quotations in the following section can be found in the Country Report for Belgium: Castanheira, Benoît and Bandelow (2019), available at www.sgi-network.org.

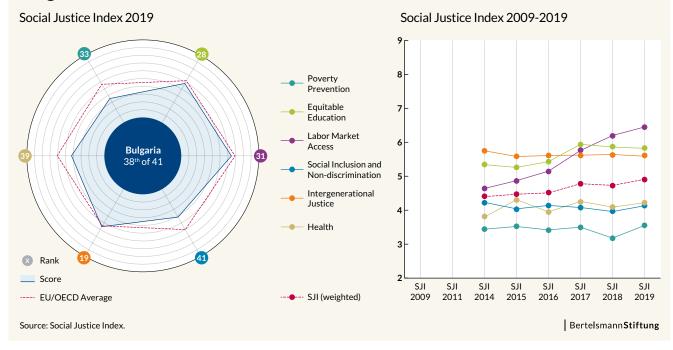
zerland and the United Kingdom). The country experts find that "most recent improvements in the education system were achieved before 2010" and that "the country's education system has largely stagnated since then." The share of the adult population without upper secondary education has significantly declined over the past ten years but remains high comparative to the country's peers: 21.8% (rank: 32). "The chronic underfunding of universities has translated into a widening skills gap, such that many available job vacancies remain unfilled, while job-seekers cannot find employment." Students from lower socioeconomic households are more disadvantaged in Belgium than in most of the countries in our study. Belgium places 37<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors is particularly stark (rank: 36). Here, the country experts point to PISA analyses showing a "substantial drop in education performance in the French-speaking part of the country."

#### Bulgaria<sup>172</sup>

Bulgaria's overall performance on the SJI continues to place it among the countries most urgently in need of policy reforms. With a score of 4.91, the country ranks 38<sup>th</sup>, surpassing only Romania, Turkey and Mexico. Across five of the six social justice dimensions in our study, Bulgaria scores below average; it scores above the sample average only on our Intergenerational Justice dimension. Most troubling, the country places last in promoting social inclusion and non-discrimination.

Since joining our study in SJI 2014, Bulgaria has seen the most improvement in expanding access to the labor market. Though still ranked 31<sup>st</sup>, the country has made considerable strides in the previous six years, rising from a score of 4.64 to 6.45 in our current report. Looking back the full ten years covered in our study, we observe that the Bulgarian labor market has largely returned to pre-global financial crisis levels. While the level of employment today (67.7%) is similar to ten years ago, the employment rate of persons 55 to 64 has risen sizably from 46.0% to 60.7%. The disparities in employment between native-born and foreign-born workers are commendably low (rank: 11). Prior to the crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) was among the highest in our sample; at 56.9%, it remains higher today than ten years ago. The unemployment rate, 5.3%, has likewise returned to pre-crisis levels after peaking in SJI 2014 at 13.0%. The share of the labor market that has been unemployed for a year or more (3.1%) remains high (rank: 33). The SGI country experts, however, warn that "employers have complained about a growing lack of sufficiently qualified labor and increasing skills mismatch. This development is increasingly undermining the sustainability of economic growth and has not been adequately addressed by the government." They also observe that "among employed people, many occupy jobs which are below their education and skills levels."

<sup>172</sup> Quotations in the following section can be found in the Country Report for Bulgaria: Ganev, Popova and Bönker (2019), available at www.sgi-network.org.



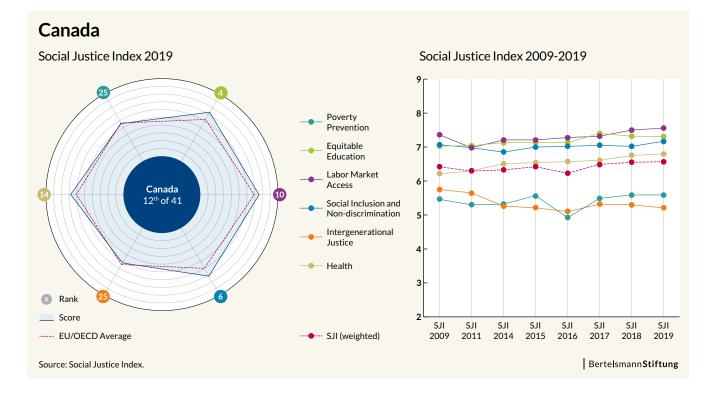
# **Bulgaria**

In our current report, Bulgaria ranks last (score: 4.13) on our dimension assessing social inclusion and non-discrimination. Income inequality is higher today than ten years ago; with a Gini coefficient ranking 38<sup>th</sup> among the 41 countries in our study. The country experts caution, however, that this increase may largely be "due to changes in the sampling of households and to problems in the measurement of incomes." The experts do note that Bulgaria lacks social "policies sufficiently tailored to the integration needs of specific groups such as minorities and immigrants." Educational attainment differs considerably between the native-born and foreign-born population segments, with the latter far less likely to have completed upper secondary (rank: 34). "Discrimination against the highly marginalized Roma minority remains a major issue. Groups such as people with mental and physical disabilities and members of sexual minorities face discrimination within the labor market, as do women. Public discourse regarding migrants has grown increasingly xenophobic as explicitly nationalistic parties have joined the ruling coalition and many Bulgarian media outlets openly broadcast hate speech, thereby contributing to racially motivated agitation. Over the course of 2018, the government tried, but failed to push through the ratification of the Istanbul Convention. The public debate on the issue revealed deep distrust of state measures to bolster the rights of women and sexual minorities."

#### Canada<sup>173</sup>

Since our first SJI analysis ten years ago, Canada's overall performance has remained roughly stable. With a score of 6.57, it ranks 12<sup>th</sup> among the 41 countries in our assessment. The country places among the top ten on three of the six social justice dimensions. It falls below average on two dimensions: Poverty Prevention (rank: 25) and Intergenerational Justice (rank: 25).

Canada continues to ensure that opportunities for a quality education are equitably distributed (rank: 4). The current score of 7.31 is a modest improvement over SJI 2009. Across most of our quantitative indicators on education, we witness measurable improvements compared to ten years ago. The share of 15-year-old students scoring below the baseline level of proficiency on PISA (5.9%) is commendably amongst the lowest in our sample (rank: 3). The SGI country experts report that "Canadian teachers are well-paid by global standards" and that "equity in access to education is impressive." The share of the adult population without upper secondary education has declined over the past ten years to 8.4%, placing the country a commendable 5<sup>th</sup>. We do, however, observe a growing chasm in upper secondary attainment between women and men (rank: 33). Canadian students from lower socioeconomic households are less disadvantaged today than in SJI 2009. Canada places 9<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has likewise declined (rank: 13). "Despite the strengths of the Canadian education



173 Quotations in the following section can be found in the Country Report for Canada: Kessler, Sharpe and Thunert (2019), available at www.sgi-network.org.

and training system, there are challenges, the biggest of which is the gap in educational attainment between the indigenous and non-indigenous populations," attributed to "the comparatively lower quality of teacher instruction and curriculum" and "funding gaps relative to provincially funded regular (off-reserve) schools."

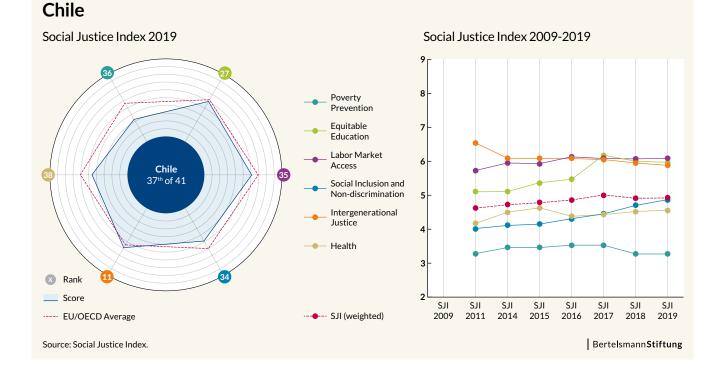
Canada's score on intergenerational justice is worse than ten years ago (5.21 in SJI 2019). Performance across the various quantitative and qualitative indicators of this dimension differ considerably. Particularly alarming, already high government debt has climbed further over the past ten years from I\$161,000 to I\$279,000 per child (rank: 35); considered relative to GDP, government debt has increased from 68.03% to 90.63% (rank: 32). During this same period, research and development spending - vital to long-term economic competitiveness - has declined from both the public and private sectors. Government-financed expenditures on R&D have declined from 0.61% of GDP in SJI 2009 to 0.49% (rank: 19) and private-sector expenditures from 1.34% to 1.06% (rank: 20). The country experts note that critics have "pointed to the inadequacy of government programs to facilitate technology transfers, and persuade small and medium-sized businesses to adopt best practices." Regarding environmental impacts, per capita greenhouse gas emissions have slightly decreased over this period to 19.59 metric tons, but Canada remains among the worst offenders (rank: 39). Also, the share of renewable energy in total energy consumption (22.0%) has remained practically unchanged (rank: 16).

# Chile<sup>174</sup>

Overall, Chile's performance on the SJI continues to place it among the countries in need of broad-based policy reforms. With a score of 4.93, it ranks 37<sup>th</sup>. Across five of the six social justice dimensions in our assessment, Chile scores below average and on four dimensions it places among the bottom ten countries. Only on our intergenerational justice dimension does the country rise above the average (rank: 11).

Equitable access to quality health care is an essential component of social justice. Chile's score on our health dimension has remained among the worst in our sample over the past nine years. With a score of 4.56, it ranks 38<sup>th</sup> in our current assessment. Chile has the lowest number of practicing physicians: just 1.0 per 1,000 inhabitants. On average, Chileans can expect 69.7 years without a limitation in functioning and without disability (rank: 28), about one year more than in SJI 2009, though about five years less than the average Japanese. In line with this modest improvement, infant mortality has marginally decreased to 6.3 per 1,000 live births (rank: 37). The SGI country experts note that "the quality and efficiency of public health care provision (government clinics and hospitals) vary widely." We do also note that the share of health care expenses being shouldered by households has decreased, from 39.2% in SJI 2009 to 32.6% in our current edition (rank: 34). This can be attributed in part to a significant reform agenda that has been gradually and consistently implemented since 2003, "expanding the range of guaranteed coverage and entailing a corresponding extension of government subsidies to low- and middle-income population groups."

<sup>174</sup> Quotations in the following section can be found in the Country Report for Chile: Klein, von Knebel, Zilla and Thunert (2019), available at www.sgi-network.org.



Chile ranks 34<sup>th</sup> (score: 4.87) on our dimension assessing social inclusion and non-discrimination. Income inequality is lower today than ten years ago but remains one of the highest in our sample; with a Gini coefficient ranking last among the 41 countries in our study. The country experts illustrate this disparity observing that "although GDP (2018) is about \$280 billion and GDP per capita (2018) is about \$15,087, nearly 70% of the population earns a monthly income less than \$800 (CLP 530,000). About half of the population earns less than \$550 (CLP 380,000) per month." The share of 20-to-24-year-olds neither employed nor participating in education or training (21.8%) has improved over SJI 2009, but likewise remains exceedingly high (rank: 37). Also, educational attainment differs measurably between the native-born and foreign-born population segments, with the latter far less likely to have completed upper secondary education (rank: 22). The country experts highlight that "while in the past Chile registered higher rates of emigration than immigration, this is reversing due to the country's economic development and political stability." "The number of immigrants in Chile has increased significantly during the last years." "During 2018, Chile became the fourth most popular Latin America destination for Venezuelan migrants."

### Croatia<sup>175</sup>

Overall, Croatia's position on the SJI 2019 continues to place it among the bottom ten countries in our study. The country's score of 5.28 ranks it 32<sup>nd</sup>, only a minor improvement over previous years. Croatia scores below average on five of the six

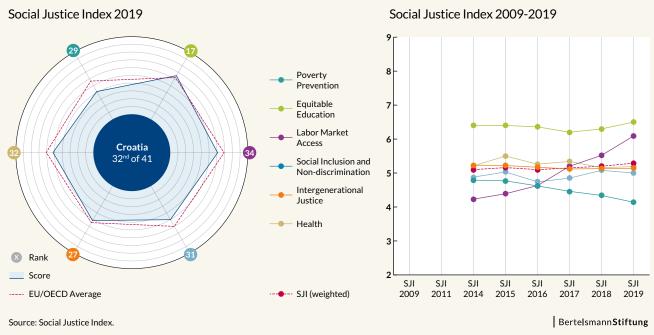
<sup>175</sup> Quotations in the following section can be found in the Country Report for Croatia: Petak, Bartlett and Bönker (2019), available at www.sgi-network.org.

social justice dimensions, twice falling among the bottom ten countries. It rises above the average only on our Equitable Education dimension.

Ensuring that opportunities for a quality education are equitably distributed is an essential pillar of social justice. Croatian education policy (score: 6.50, rank: 17) has several strengths, but also continued shortcomings. Across four of our six quantitative indicators on education, we witness improvements compared to ten years ago. As a percentage of GDP, public expenditure on pre-primary education totals 0.66% in the most recent reported year, ranking the country 12<sup>th</sup>. The education system shows mixed results on ensuring that learning opportunities do not favor particular socioeconomic groups. Croatian students from lower socioeconomic households are more disadvantaged today than in SJI 2009. However, amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has remained comparatively low (rank: 8). We also observe an enormous, though narrowing, divide in upper secondary attainment between women and men (rank: 32). The SGI country experts report that "vocational education is very weak, as there is a high degree of mismatch between what is taught and the demands of employers, so that vocational education is not an assured route to a job." They also note that "education reform has suffered from a lack of [policy] continuity."

Croatia's greatest social justice challenge remains labor market access (score: 6.09, rank: 34). Tremendous strides have been accomplished, progressively lifting the country's score over the past six years (SJI 2014: 4.23). Yet, more must be done, as only 60.6% of working-age Croatians are employed (virtually the same share as ten years ago), ranking the country 38<sup>th</sup>. In addition, only 42.8% of persons 55 to 64 were employed (rank: 38<sup>th</sup>). The share of workers in part-time

# Croatia



employment involuntarily (i.e., unable to secure full-time employment) has risen substantially, from 21.8% pre-crisis to 33.8%. On a positive note, disparities in employment between native-born and foreign-born workers are commendably low (rank: 6). The overall unemployment rate hit 17.5% in SJI 2014 but has since been halved to 8.5% (rank: 35). After likewise peaking five years ago at 11.1%, the number of persons unemployed for a year or more has decreased to 3.4% (rank: 36). The labor market condition for youth has also improved compared to five years ago, but youth continue to fare the worst, with 23.7% of 15-to-24year-old Croatians unemployed (rank: 38). The country experts find that "while the number of participants in active labor market programs has quadrupled since 2010, the adopted measures have not been very effective. (...) In the case of young people, the expansion of active labor market programs has led to the neglect of other ways of entering the labor market, such as internships and traineeships."

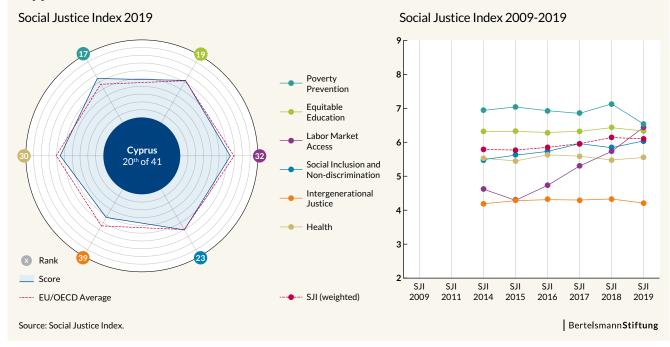
## Cyprus<sup>176</sup>

Cyprus' current SJI score of 6.10, a modest improvement over SJI 2014, places it 20<sup>th</sup> among the 41 countries. On three of the six social justice dimensions in our study, Cyprus scores above average; on another two dimensions it falls among the bottom ten.

Since SJI 2014, Cyprus' poverty prevention score has fluctuated. In SJI 2019, it scores 6.54 (rank: 17). The current overall population share at risk of poverty, 8.4%, reflects opposing trends in two population groups. A higher share of children and youth (under 18) risk poverty today than 10 years ago: 11.1%, up from 5.1%. In the same period, the share of seniors at risk of poverty has plummeted from 24.9% to 9.1%. This improvement, according to the SGI country experts, is "thanks to changes to various benefits schemes since 2012." "Pensioners, in particular women, appear to have benefited significantly from the [introduction of a] GMI" (guaranteed minimum income).

Cyprus continues to face major challenges in securing policy outcomes that are intergenerationally just. The country's score on this dimension of 4.21 (rank: 39) has hardly shifted over the past five assessment years. Among other requisite conditions, intergenerational justice requires a sustainable public budget. Cyprus, however, ranks among the ten countries with the highest public debt. At 102.54% of GDP (rank: 36), the government has more than doubled gross debt compared to ten years ago (44.13%). Considered another way, government debt per child has increased from I\$88,000 to I\$253,000 (rank: 32). While public debt has risen, public research and development spending has largely stagnated overly the past ten years. Government-financed expenditures on R&D are just 0.22% of GDP (rank: 36). We do observe that private-sector expenditures have progressively increased over this period, from 0.12% of GDP to 0.31%, but remain among the lowest in our sample (rank: 37). This lack of investment undermines the innovation dexterity necessary to maintain high employment in a modern economy. Finally, a truly broad-based intergenerationally just strategy requires the sustainable management of natural resources and effective measures to combat global

<sup>176</sup> Quotations in the following section can be found in the Country Report for Cyprus: Christophorou, Axe and Karadag (2019), available at www.sgi-network.org.



Cyprus

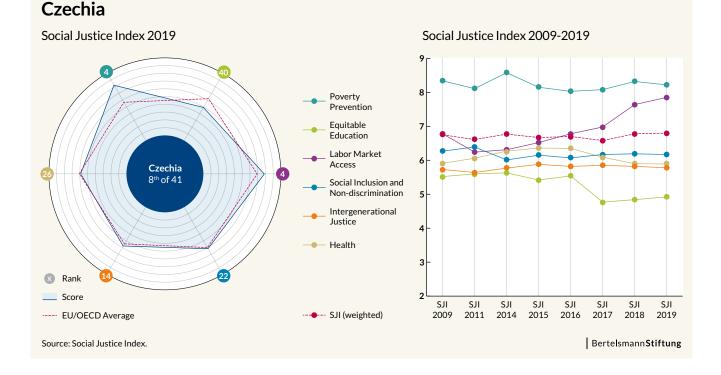
warming. However, Cyprus shows major weaknesses in this respect as well. A low 9.9% of energy consumed by end users (e.g., households and industry) comes from renewable sources (rank: 29). While this share has nearly tripled since SJI 2009, it nonetheless falls among the bottom third of countries in our sample. The country experts blame "the absence of a comprehensive and coherent policy, dispersed responsibilities, and political expediency favoring financial interests at the expense of environmental protection." In general, Cyprian "authorities continue to use the economic crisis as a pretext as they proceed in relaxing or canceling environmental protection rules."

# Czechia<sup>177</sup>

Czechia ranks 8<sup>th</sup> overall on the current SJI with a score of 6.80. The country's score has remained largely stable over the past ten years. Czechia ranks among the top five countries on two of the six social justice dimensions in our study and around the sample average on another three dimensions. It ranks fourth for effectively fighting poverty (score: 8.22), surpassed only by Iceland, Denmark and Finland. Alarmingly, it places second-to-last on our Equitable Education dimension.

Over the past ten years, improvements to the Czech labor market have become palpable (score: 7.85, rank: 4). Czechia ranks among the top ten on six of the eleven indicators assessing equity in access to the labor market. The level of

<sup>177</sup> Quotations in the following section can be found in the Country Report for Czechia: Guasti, Mansfeldová, Myant and Bönker (2019), available at www.sgi-network.org.



employment today (74.8%) is the highest in ten years and the employment rate of persons 55 to 64 has risen sizably from 47.6% ten years ago to 65.1%. The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has fallen from a peak of 21.1% during the global financial crisis to 6.5% (rank: 3). In line with this comparatively high employment, the SGI country experts observe wage increases, largely stimulated by "government decisions over minimum wages and public sector pay, with the biggest increase being 13.2% in education, billed as indicating a recognition of the importance of that sector for economic performance." The unemployment rate – the lowest in our sample (2.3%) – has fallen after peaking during the crisis at 7.4%. Youth unemployment (6.7%) is at its lowest level in ten years (rank: 4). The disparities in unemployment between native-born and foreign-born workers has fallen in recent years (rank: 5). The share of the labor market that has been unemployed for a year or more (0.7%) is likewise at the lowest level in recent history (rank: 8).

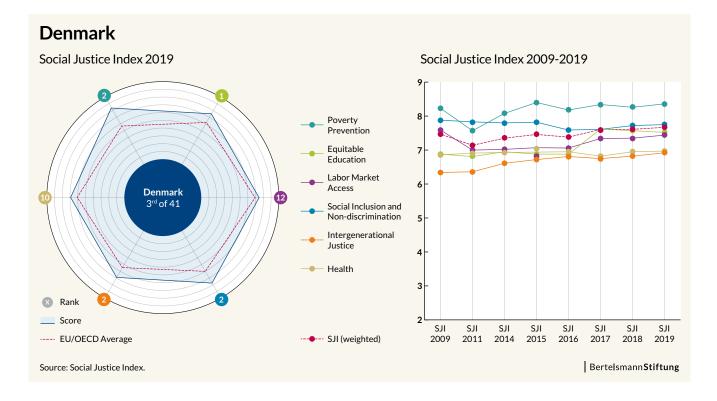
That opportunities for a quality education are equitably distributed is an indispensable component of social justice, with lifelong consequences. Yet here Czechia's score over this period has moderately worsened (4.92 in SJI 2019) while many of its peers have surged ahead. The share of the adult population without upper secondary education is among the lowest in our sample: 6.1% (rank: 2). Yet, though most of the adult population has completed upper secondary, education outcomes vary starkly by socioeconomic background. Czechia places 39<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors is similarly stark (rank: 40). Also, over the past 10 years, we observe a closing chasm in educational attainment between women and men, nonetheless the country has the third highest disparity in our

sample. "A particularly vulnerable group are Roma. Around 25% of Roma children are educated in 'special schools' (populated almost exclusively by Roma), before being placed in so-called practical schools with lower learning standards."

# Denmark<sup>178</sup>

Denmark continues to reign as one of the most socially just countries in our study. It ranks 3<sup>rd</sup>, behind Iceland and Norway, with an overall score of 7.67. This score is a minor improvement over ten years ago. Denmark's overall success is broad-based, with the country ranking among the top five on four of our six social justice dimensions. Denmark ranks among the top third on the other two dimensions (i.e., Health and Labor Market Access).

Danish public policy has successfully confronted a broad spectrum of social justice challenges. One policy area particularly worth highlighting relates to the country's success at ensuring that opportunities for a quality education are equitably distributed. Denmark ranks 1<sup>st</sup> among the 41 countries in our study on our dimension Equitable Education, scoring 7.52. Across most of our quantitative indicators on education, we witness improvements compared to ten years ago. As a percentage of GDP, public expenditure on pre-primary education totaled 1.25% (rank: 2). The share of students scoring below the baseline level of proficiency on PISA (7.5%) is comparatively low (rank: 6), confirming that Danish students are generally receiving a quality education. According to the SGI country report, "since



178 Quotations in the following section can be found in the Country Report for Denmark: Laursen, Andersen and Jahn (2019), available at www.sgi-network.org.

2014, school days have become longer, there is more assisted learning, there are more lessons in Danish and math, and the teaching of foreign languages has been strengthened (English made compulsory from level 1, German and French from level 5)." The share of the adult population without upper secondary education has declined over the past ten years from 26.2% to 18.4% (rank: 24). We do observe a wide and growing divide in upper secondary attainment between women and men (rank: 29). Also, Danish students from lower socioeconomic households are less disadvantaged today than in the recent past. Denmark places 11<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has likewise declined (rank: 22).

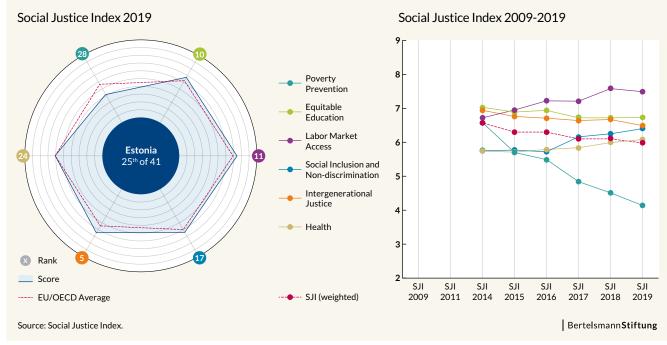
Denmark also scores very well in the area of intergenerational justice (score: 6.92), where it ranks second, surpassed only by Sweden. Denmark's success on this dimension is due, among other things, to the pension system, which provides current pensioners with an adequate income and at the same time is adapted to demographic pressure by gradually increasing the retirement age and reducing the early retirement period - reforms that are urgently needed with an age dependency ratio of 31.1% (rank: 32). The SGI country experts further explain that "retirement ages will be linked to developments in life expectancy at the age of 60 such that the expected pension period becomes 14.5 years." In addition, investment in economic sustainability and in finding new solutions to current challenges is very high in both the private sector (2.22% of GDP, rank: 7) and the public sector (0.83% of GDP, rank: 5). Denmark is also making comparatively sound progress to ensure that future generations receive a fair ecological inheritance. Over the past 10 years, the country has steadily reduced its greenhouse gas emissions to 8.54 metric tons per capita and ranks 7<sup>th</sup> with a 33.2% share of renewable energy. Nevertheless, there remains a great need for action in the area of climate and environmental protection, as the extremely large material footprint of 24.44 metric tons per capita (rank: 24) shows.

#### Estonia<sup>179</sup>

Estonia's overall performance on the SJI has moderately fallen in comparison to SJI 2014. With an overall score of 5.98, it ranks 25<sup>th</sup>. Across the six social justice dimensions that comprise our index, Estonia places among the top ten on two dimensions (i.e., Equitable Education and Intergenerational Justice). Over the six-year period, the country has seen by far the greatest loss in score on our Poverty Prevention dimension.

Since first being assessed in SJI 2014, Estonia has seen the most improvement in expanding access to the labor market (score: 7.49, rank: 11). Looking back the full ten years covered in our study, we observe that the Estonian labor market has largely returned to or even surpassed pre-global financial crisis levels. The overall level of employment today (74.8%) as well as the employment rate of persons 55 to 64 (68.9%) are the highest in ten years, ranking the country 9<sup>th</sup> on both indicators. The disparities in employment between native-born and foreign-born

<sup>179</sup> Quotations in the following section can be found in the Country Report for Estonia: Toots, Sikk and Jahn (2019), available at www.sgi-network.org.



## **Estonia**

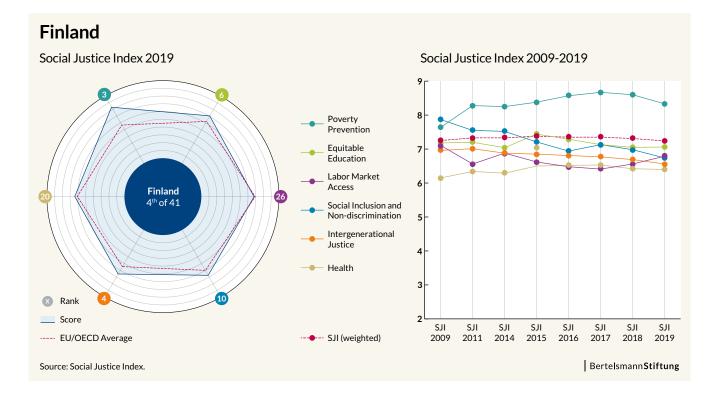
workers are comparatively more middling (rank: 20). Prior to the crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) was 13.4%, but has fallen to the second-lowest level in our sample: 5.8%. The unemployment rate, 5.4%, has returned to pre-crisis levels after peaking in SJI 2011 at 17.1%. The SGI country experts report that "recent labor market reforms have focused on the employability of disabled people." Also, "a new set of proactive measures was introduced in 2017 - 2018 (e.g., the Work and Study Program) to help workers with limited or outdated skills to upgrade their qualifications."

Estonia's most precipitous loss in score over SJI 2014 is in poverty prevention: from 6.59 to 4.14 (rank: 28). The current overall level of poverty, 13.9%, is the highest in ten years (rank: 29). Poverty in Estonia also reflects opposing trends in two population groups. The share of seniors at risk of poverty has surged from 3.7% in SJI 2011 to a shocking 28.1% – one in four seniors (rank: 39). Concurrently, the share of children and youth (under 18) at risk of poverty has sunk from a high of 14.5% in SJI 2015 to 9.2% (rank: 10). The country experts note that "due to the low absolute level of benefits (€415 per month), elderly people still struggle to make ends meet. Because wages grow faster than pensions, the senior citizen poverty rate has increased substantially in recent years." "Since work-related income has significantly increased, the poverty of wage earners has decreased. Social transfers have not followed step with the wage increases, resulting in increased relative poverty levels among the retired, the unemployed and families dependent on social benefits."

#### Finland<sup>180</sup>

Since SJI 2009, Finland has consistently ranked as one of the best-performing countries. Its current score of 7.24 places 4<sup>th</sup>. Finland ranks among the top ten of countries in four of the six SJI dimensions. Over the ten-year period, the country has however been surpassed by many of its peers on our Labor Market Access dimension (rank: 26).

Finland has a history of ensuring social inclusion and that members of society are free from discrimination. The country "has often been seen as a forerunner concerning its efforts to maintain an effective minority-protection policy. Cases of discrimination are rather few, although people with an immigrant background are more likely to encounter discrimination." Yet, over the past ten years, the country's score on this dimension has fallen from 7.87 to 6.74 (rank: 10). Finland places 3<sup>rd</sup> for the share of parliamentary seats held by women (42.0%, until better data are available, we use this as a proxy for gender equality in society). In stark contrast, Finland ranks 36<sup>th</sup> out of 41 countries on the level of education parity attained by foreign-born students. The NEET rate of 12.1% (rank: 16), is an improvement over a peak of 15.7% in SJI 2016. Even so, the rate of 20-to-24year-olds neither employed nor participating in education or training remains above the pre-global financial crisis level. Income inequality today is nominally lower than ten years ago; with a Gini coefficient ranking 7<sup>th</sup> in our sample. The SGI country experts report that "the growing number of people (especially older people) living alone, and widespread perceptions of loneliness among children



180 Quotations in the following section can be found in the Country Report for Finland: Anckar, Kuitto, Oberst and Jahn (2019), available at www.sgi-network.org. and young people have gained attention. Improving the inclusion in society of vulnerable groups and the design of services to prevent loneliness have become core issues within the social inclusion agenda."

Regarding equitable access to the labor market, we witness Finland's score moderately worsening (6.79 in SJI 2019) while many of its peers have surged ahead (e.g., Czechia and Germany). On seven of the eleven (quantitative) metrics that comprise this dimension, Finland is worse off today than ten years ago. While the level of employment today (72.1%, rank: 17) is similar to ten years ago, the employment rate of persons 55 to 64 has risen sizably from 56.5% to 65.4% (rank: 15). Yet, the disparities in employment between native-born and foreign-born workers have risen (rank: 34). The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) – 32.1% – remains higher today than ten years ago (rank: 30). The unemployment rate, 7.5%, remains likewise higher than before the crisis (rank: 33). The same holds true among the segment of the labor force without upper secondary education, where 11.5% are unemployed (rank: 31), and among youth, where 17.0% are unemployed (rank: 32).

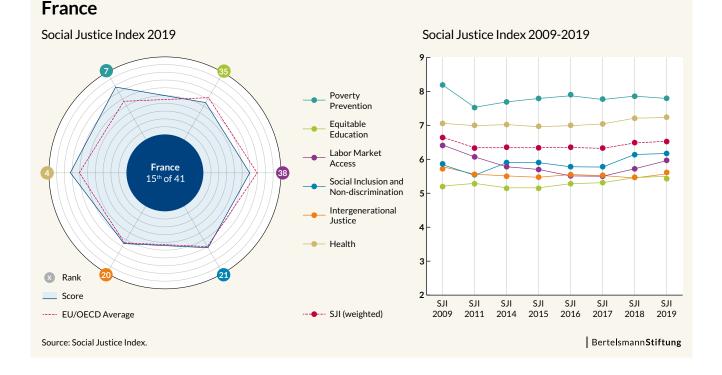
## France<sup>181</sup>

France's overall performance on the SJI has remained relatively stable over the past ten years. In the current index, it ranks 15<sup>th</sup> overall with a score of 6.53. France places among the top ten on two of the six social justice dimensions that comprise our assessment, placing an admirable 4<sup>th</sup> on our Health dimension and 7<sup>th</sup> in the dimension measuring the prevention of poverty. It falls at the sample average on two other dimensions and among the bottom ten on the remaining two (i.e., Equitable Education and Labor Market Access).

The SGI country experts attribute the relatively low risk of poverty to the generous French welfare model, which largely protects against poverty and social exclusion. At the same time, however, they criticize the fact that some rural regions and migrants are affected by social exclusion.

The social justice of education systems can be seen in particular in the extent to which they offer children and young people equal opportunities for a successful educational career. Against this background, the poor result for France with regard to equitable education is due in particular to the strong social selectivity of the education system; in no other of the 41 EU and OECD countries is the influence of socioeconomic background on the educational opportunities of children and young people greater. This is an alarming result, as a good education is a basic prerequisite for later labor market opportunities and thus also for social participation. However, the experts also report that the Macron government is addressing the issue and has launched several measures to ensure better and fairer educational opportunities. The quality of education also leaves much to be desired; the proportion of PISA low performers in all subjects is 14.8% (rank: 28), about three times as high as in Estonia, the best country on this indicator.

<sup>181</sup> Quotations in the following section can be found in the Country Report for France: Mény, Uterwedde and Zohlnhöfer (2019), available at www.sgi-network.org.

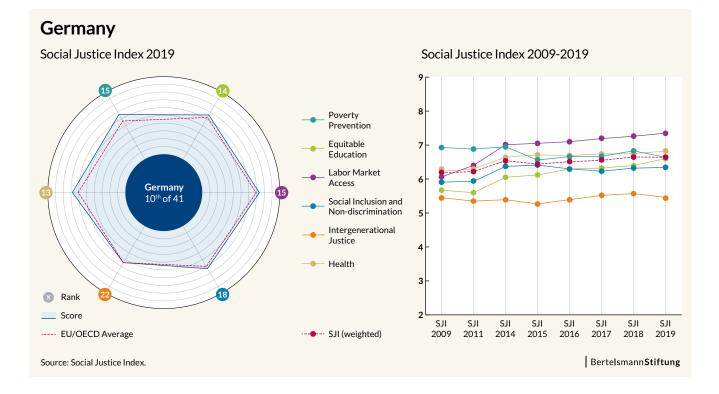


France's score on our Labor Market Access dimension (5.96 in SJI 2019) is lower today than ten years ago. Since SJI 2009, many of its peers have surged ahead (rank: 38). On eight of the eleven (quantitative) metrics that comprise this dimension, France is worse off today than ten years ago. While the level of employment today (65.4%, rank: 32) is similar to ten years ago, the employment rate of persons 55 to 64 has risen sizably from 38.2% to 52.1% (rank: 32). Yet, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has risen over this period from 34.9% to 41.8% (rank: 33). The unemployment rate, 9.1%, remains likewise higher than before the global financial crisis (rank: 37). The same holds true among the segment of the labor force without upper secondary education, where 14.3% are unemployed (rank: 34). The country experts report a "large number of unfilled job vacancies across various sectors of the economy" and that "unskilled jobs are [increasingly] filled by non-EU migrants or workers from Eastern and Central Europe recruited on temporary contracts." Additional weaknesses include the notoriously high youth unemployment rate (20.8%, rank: 37) and that (especially young) foreign-born workers face tremendous difficulties integrating into the labor market (rank: 30). Both of these shortcomings highlight missed opportunities to integrate youth and marginalized adults into French society. "The [Macron] government has also launched immediate measures to improve the job qualifications of long-term unemployed and young people who left school without a diploma, a program involving €15 billion over five years," but the outcomes of these policy interventions are yet to be seen.

## Germany<sup>182</sup>

Germany's overall score has modestly improved over SJI 2009: 6.64 in 2019. It ranks 10<sup>th</sup> overall in our current edition. On five of the six social justice dimensions, Germany places above the 41-country average. The greatest improvement over the period can be found in our Labor Market Access dimension.

Over the past ten years, labor market reforms have yielded palpable advances. With a score of 7.35, the German labor market now ranks 15<sup>th</sup>. Across nine of the eleven (quantitative) indicators that comprise this dimension, Germany has witnessed progress over ten years ago. The level of employment today (75.9%) is the highest in ten years and the employment rate of persons 55 to 64 has risen sizably from 53.7% ten years ago to 71.4%, both place the country 7<sup>th</sup>. The share of workers in part-time employment involuntarily (i.e., unable to secure fulltime employment) has fallen nearly 13 percentage points over this period to 10.2% (rank: 11). Overall unemployment of 3.5% (rank: 5), youth unemployment of 6.2% (rank: 3) and long-term unemployment of 1.5% (rank: 23) are at their lowest levels in ten years. The SGI country experts note "a comprehensive toolbox of active labor market programs, which includes financial support for vocational training programs, support for self-employed individuals, provision of workfare programs and the subsidized employment of long-term unemployed individuals. Traditional instruments, such as job creation and training programs, are now seen as combinable." On the other hand, it should be critically noted that a large proportion of (newly created) jobs in Germany are in the low-wage sector. The



182 Quotations in the following section can be found in the Country Report for Germany: Rüb, Heinemann and Zohlnhöfer (2019), available at www.sgi-network.org.

proportion of low-income earners who earn less than two-thirds the median income is 22.5% (rank: 33). Furthermore, disparities in labor market opportunities between native-born and foreign-born workers have increased. This inequity is particularly visible in unemployment data, where immigrants are disproportionally represented (rank: 35). The country experts report that this deficiency relates "to a relatively high share of young migrants with low qualifications." In addition, they warn that the expansion of "atypical employment contracts may have negative consequences for the social security system and, more generally, social justice." They do observe that "the number of 'minijobs' has decreased in absolute numbers since the [January 2015] introduction of the minimum wage."

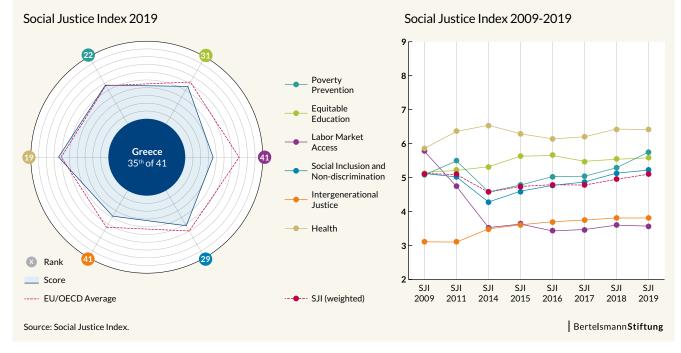
Over the past 10 years Germany has made no progress in ensuring intergenerational equity and is still ranking below average (rank: 22). The shortcomings are also evident in environmental and climate policy, which urgently requires ambitions to leave a fair ecological inheritance for younger and future generations. At 14,2%, the share of energy that comes from renewable sources is comparatively low (rank: 24). Germany also scores poorly with regard to cutting greenhouse gas emissions. Given that emissions have remained roughly constant at 10.97 metric tons per capita over the past 10 years, Germany is one of the major sources of greenhouse gas emissions (rank: 30). In the future, younger generations will also be placed under an immense financial burden if the necessary reforms for a sustainable pension system are not carried out. The demographic pressure is already one of the strongest in the sample, with an old-age dependency ratio of 33.2% (rank: 37). On the positive side, however, debt is at a new low (59.75% of GDP). Investments in research and development, which are necessary to support a country's competitiveness, remain high at 0.83% in the public sector and 2.09% in the private sector.

#### Greece<sup>183</sup>

With an overall score of 5.10, Greece continues to place amongst the bottom ten countries in our comparative study on social justice (rank: 35). The country's performance today is virtually unchanged from ten years ago. Across the six social justice dimensions that comprise our index, it scores above average twice (i.e., Poverty Prevention and Health) and ranks very last twice (i.e., Labor Market Access and Intergenerational Justice).

The crisis has had a devastating effect on labor market access. In contrast to most of its peers, who have not only rebounded, but are at a ten-year high, Greece's overall score has fallen from 5.77 to 3.57. On most of the (quantitative) metrics that comprise this dimension, Greece has witnessed improvements since the peak of the crisis but remains worse off today than ten years ago. Just over half of the working-age population is employed (54.9%, rank: 40). In contrast to virtually all its peers, the employment rate of persons 55 to 64 is lower than in SJI 2009: 41.1% (rank: 39). The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has rocketed from 44.1% ten years ago to 70.1%, ranking the country last. The chasm in employment between women

<sup>183</sup> Quotations in the following section can be found in the Country Report for Greece: Sotiropoulos, Huliaras and Karadag (2019), available at www.sgi-network.org.



### Greece

and men has declined in comparison to ten years ago; nonetheless the Greek labor market continues to show one of the highest disparities in our sample (rank: 39). The unemployment rate, 19.5%, remains the highest in our sample (rank: 41) as well as far higher than before the crisis. The same holds true among the segment of the labor force unemployed for a year or more (13.7%, rank: 41) and among youth, where a staggering 39.9% are unemployed (rank: 41). The country experts warn that recent reductions to unemployment are "owed to several factors, including low wages, a rise in part-time jobs, growth in the tourism sector (where jobs are available over the long Greek summer, lasting from April to October), and an increase in emigration (of both skilled workers and migrants)."

Another consequence of the crisis is that Greek policymakers fail to achieve results that are intergenerationally just (score: 3.81). Not only because of its persistently high debt (183.26% of GDP, rank: 40) and the associated large financial burdens for younger generations – I\$371,000 calculated per child – Greece ranks last on our Intergenerational Justice dimension. The demographic pressure in Greece is extremely high, with an age dependency ratio of 31.5% (rank: 33) - a rising trend. Yet the state continues to do far too little to support families, as our country experts continue to point out: "Instead of focusing on the poor and the children, the bulk of social attention is focused on pensioners, often regardless of their income level." The effects of this deficient family policy can also be seen in the high poverty risk of 16.2% for children and young people (rank: 31), while poverty in old age is only 6.3% (rank: 13). The picture is a little more positive in the area of environmental sustainability. Even though Greece is far from a role model country in terms of environmental and climate protection, it has been able to improve its performance in some areas over the past decade. At 8.87 metric tons per capita, Greece continues to emit large quantities of greenhouse gases (rank: 22) but has

reduced its emissions by almost 3.5 metric tons since 2009, mainly because of the decline in industrial production caused by the crisis. While there remains room for further improvement, Greece has made significant progress over the last decade in the share of renewable energy, rising by 7.7% to 17.2% (rank: 19).

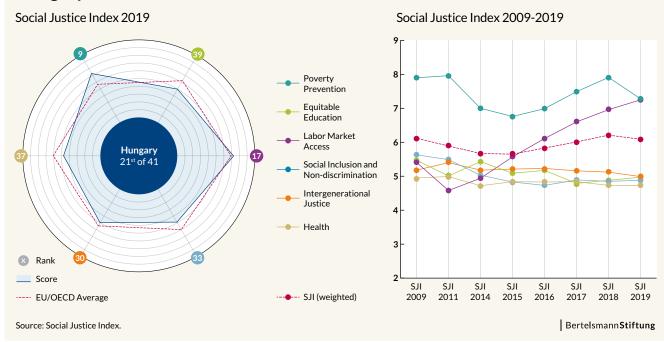
#### Hungary<sup>184</sup>

Hungary's overall score on the SJI has fluctuated little since ten years ago. With a score of 6.09, the country exhibits average performance (rank: 21). On our index's six social justice dimensions, Hungary finds itself among the top ten on Poverty Prevention and among the bottom ten on three other dimensions. We observe the greatest rebounding since the global financial crisis in our Labor Market Access dimension.

The Hungarian labor market has witnessed substantial improvements in recent years. Hungary's score on this dimension has skyrocketed from a low of 4.58 in SJI 2011 to 7.25 (rank: 17). The overall employment rate has increased from 54.9% at the height of the crisis to 69.2% (rank: 23). Over the past ten years, the employment rate of persons 55 to 64 has risen more in Hungary than in any other country in our sample, rising from 30.9% to 54.4% (rank: 27). In contrast, the chasm in employment between women and men has barely shifted over the past ten years (rank: 33). Unemployment has progressively decreased in recent years to 3.7% (rank: 6). Likewise, the number of persons unemployed for a year or more has gradually decreased to 1.4% (rank: 22). Youth unemployment has been more than halved since SJI 2014 to 10.2% (rank: 15). The SGI country experts caution, however, that "low unemployment has largely been achieved by controversial public-works programs and an increase in the number of Hungarians working abroad. The public-works programs have provided 'workfare' rather than 'welfare'" and seldom resulted in labor market integration. "The number of Hungarians working abroad is estimated at 600,000, many of them highly educated and skilled. The resulting brain drain has become a major obstacle to the acquisition of FDI and to economic development."

Hungary has witnessed the greatest score loss over ten years ago on our dimension focusing on strengthening social inclusion and combating discrimination. Today, it ranks 33<sup>th</sup> on this dimension, with a score of 4.88. The Hungarian National Assembly has among the lowest proportion of seats held by women of any national parliament in our sample: 12.6%, (until better data are available, we use this as a proxy for gender equality in society). Educational attainment differs considerably between the native-born and foreign-born population segments, with the latter less likely to have completed upper secondary (rank: 12). "Hungary has a comprehensive anti-discrimination legal framework in place, but in practice, little is done to enforce it." "The government has also continued its hate campaign against Muslims and refugees. As a result, xenophobia has grown among Hungarians, with a spillover to all kinds of minorities, including Jews, since the government's aggressive campaign against George Soros invoked anti-Semitic stereotypes." Likewise essential for long-term social cohesion,

<sup>184</sup> Quotations in the following section can be found in the Country Report for Hungary: Ágh, Dieringer and Bönker (2019), available at www.sgi-network.org.



Hungary

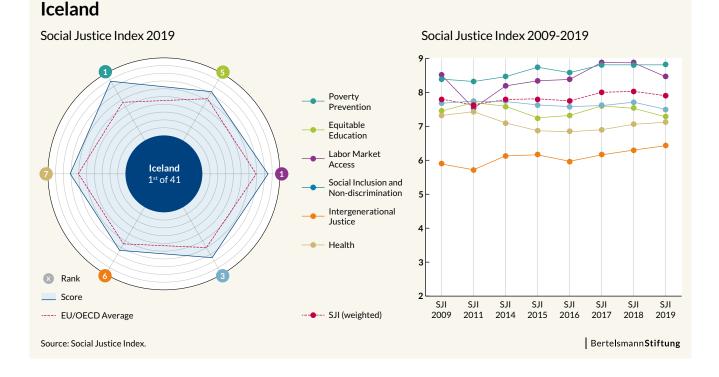
overall income inequality is slightly higher today than ten years ago; with a Gini coefficient ranking 14<sup>th</sup>. The country experts nevertheless perceive that "both the impoverishment of people in the lower income deciles and the weakening of the middle classes have continued."

# Iceland<sup>185</sup>

With an overall score of 7.90, Iceland continues to reign as the most socially just in our 41-country comparative study. This score expresses a minor improvement over ten years ago. Iceland's overall success is broad-based, with the country ranking among the top ten on all six of our social justice dimensions. It places first on two dimensions (i.e., Poverty Prevention and Labor Market Access).

Over the 10 years of our survey, Iceland poverty prevention score has modestly fluctuated, but always remained among the highest. In SJI 2019, it scores 8.81. The SGI country experts report that "social policies after the economic crisis were reasonably successful" at curtailing poverty. The current overall population share at risk of poverty, 4.0%, is the lowest in our sample and reflects opposing trends in two population segments. A slightly higher share of children and youth (under 18) risk poverty today than 10 years ago: 4.6% (rank: 2). In contrast, the share of seniors at risk of poverty has been more than halved to 1.3% (rank: 3). The country experts note, however, that an increasing number of particularly young Icelanders are now finding that housing has become unaffordable "because residential con-

<sup>185</sup> Quotations in the following section can be found in the Country Report for Iceland: Eythórsson, Gylfason and Jahn (2019), available atwww.sgi-network.org.



struction in the Reykjavík area has not kept up with demand and the tremendous influx of tourists has led to a substantial increase in rents."

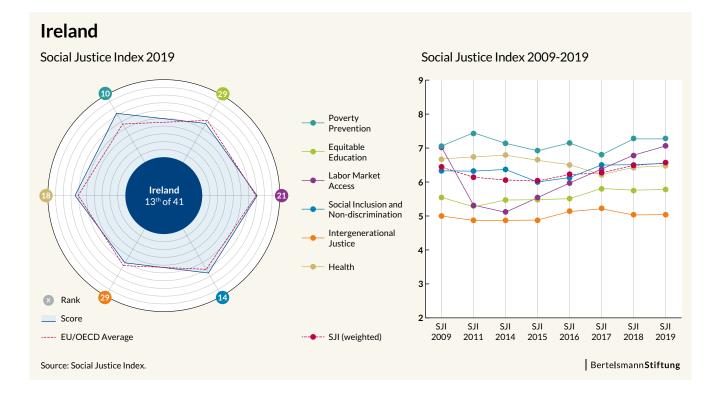
Ensuring intergenerational equity is a complex challenge. Over the past 10 years, Iceland has improved on our Intergenerational Justice dimension, ranking 6th in this year's Social Justice Index (score: 6.43). Iceland scores particularly well in terms of debt; it has reduced its debt, which had risen sharply during the crisis, to 35.43% of GDP, well below the pre-crisis level (SJI 2009: 66.15% of GDP). However, the country has not yet returned to a pre-crisis level on research and development expenditure, although it still ranks 11<sup>th</sup> with 0.73% of GDP in the public sector and 15<sup>th</sup> with 1.37% of GDP in the private sector. Iceland has achieved particularly good results in the expansion of renewable energy. With 77.0% energy from renewable sources, Iceland is the absolute frontrunner and leaves even second placed Norway (57.8%) well behind. In the area of ecological sustainability, there is a clear need for improvement on greenhouse gases emissions, which at 13.85 metric tons per capita (rank: 35) remain very high, though they have been declining since SJI 2009. According to the country experts, a shift in thinking has already begun, with the result that "in September 2018, the Icelandic Government announced a new Climate Strategy, intended to boost efforts in cutting net emissions. The new measures are to help Iceland meet its Paris Agreement targets for 2030 and reach the government's ambitious aim to make Iceland carbon neutral before 2040. The main emphasis of the new plan is on two measures: 1) to phase out fossil fuels in transport, and 2) to increase carbon sequestration in land use, by afforestation, revegetation and restoration of wetlands."

### Ireland<sup>186</sup>

Ireland's overall score of 6.56 on our current SJI ranks it 13<sup>th</sup> out of the 41 countries. The government's overall policy performance on social justice is similar today to ten years ago. Across our six dimensions, we observe a similar inertia over the past decade. In ranking, Ireland rises to the top ten only once (i.e., Poverty Prevention).

Ireland's poverty prevention score has risen from 7.07 ten years ago to 7.28 today (rank: 10). The SGI country experts report that "during the recession, Irish social and economic policy continued to place a high priority on poverty reduction. The poorest groups in society were protected from the worst effects of the recession." The current overall population share at risk of poverty, 8.2%, ranks 11<sup>th</sup> in our sample and reflects similar trends in two population segments. A lower share of children and youth (under 18) risk poverty today than 10 years ago: 9.2% (rank: 10). Similarly, the share of seniors at risk of poverty has decreased to 5.1% (rank: 11). Notwithstanding, "the incidence of homelessness is on the rise in the country's principal cities and towns. The virtual cessation of residential construction after the 2008 crash combined with a recovery in house prices and rents since 2013 have made affordable housing increasingly difficult to obtain, especially in the Dublin area."

Irish policymakers are increasingly failing to secure outcomes that are intergenerationally just. The country's score on this dimension of 5.04 (rank: 29) shows only a minor improvement over the peak of the global financial crisis. Among



186 Quotations in the following section can be found in the Country Report for Ireland: Murphy, Mitchell and Bandelow (2019), available at www.sgi-network.org.

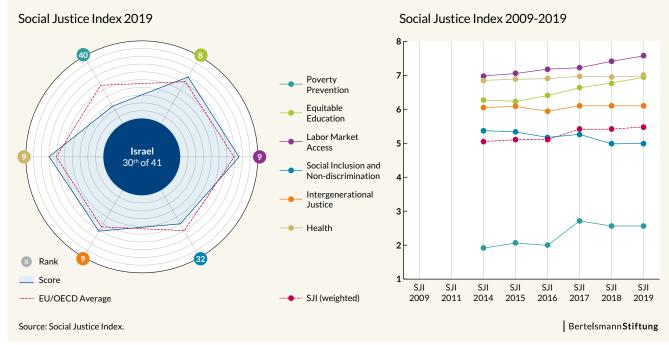
other requisite conditions, intergenerational justice requires a sustainable public budget. At I\$250,000 per child, government debt has more than doubled compared to ten years ago (I\$93,000). Considered another way, government debt has increased from 42.41% of GDP to 65.20% (rank: 26). While public debt has risen, research and development spending has declined. Government-financed expenditures on R&D are just 0.31% of GDP (rank: 35). Private-sector expenditures peaked at 1.13% of GDP four years ago but have since fallen to 0.88% (rank: 22). "While government policy is supportive of research and innovation by indigenous firms, the most striking success of Irish industrial policy has been in attracting foreign-owned firms in high-tech sectors to Ireland." This lack of direct investment undermines the innovation dexterity necessary to maintain high employment in a modern economy. Finally, a truly broad-based intergenerationally just strategy requires the sustainable management of natural resources and preservation of a country's vital ecological habitats. However, Ireland shows major weaknesses in this respect as well. A low 9.1% of energy consumed by end users (e.g., households and industry) comes from renewable sources (rank: 33). While this share has tripled since SJI 2009, it nonetheless falls among the bottom ten countries in our sample. Although per capita greenhouse gas emissions have similarly improved compared to the SJI 2011 - falling to 12.64 metric tons - since SJI 2016 greenhouse gas emissions have not been further reduced and Ireland remains among the ten largest emitters (33<sup>rd</sup> place). The country experts note that the "agricultural sector (dairy farming in particular) produces almost half of the country's carbon emissions."

#### Israel<sup>187</sup>

Overall, Israel's score on the SJI 2019 continues to place it among the bottom third of countries in our assessment. The country's score – 5.48 – has shifted only moderately over the past six years and ranks 30<sup>th</sup> among the 41 countries. Israel scores among the top ten on four of the six social justice dimensions but falls twice among the bottom ten countries (i.e., Poverty Prevention and Social Inclusion/Non-discrimination).

Ensuring that opportunities for a quality education are equitably distributed is an essential pillar of social justice. Israeli education policy (rank: 8) has several strengths, with the current score of 6.94 showing a modest improvement over SJI 2014. On four of the six quantitative indicators on education, we witness measurable improvements compared to ten years ago. As a percentage of GDP, public expenditure on pre-primary education totals 0.83% in the most recent reported year, ranking the country 5<sup>th</sup>. The share of the adult population without upper secondary education has declined over the past ten years from 18.8% to 12.6% (rank: 13). The education system shows mixed results on ensuring that learning opportunities do not favor particular socioeconomic groups. The SGI country experts note the heterogeneity of the Israeli education system, where "students are generally sorted into one of four primary school streams: three for the Hebrew-speaking community (secular, religious and ultra-orthodox), and one for the Arabic-speaking community (Arab, Druze and Bedouin minorities

<sup>187</sup> Quotations in the following section can be found in the Country Report for Israel: Levi-Faur, Hofmann and Karadag (2019), available at ww.sgi-network.org.



### Israel

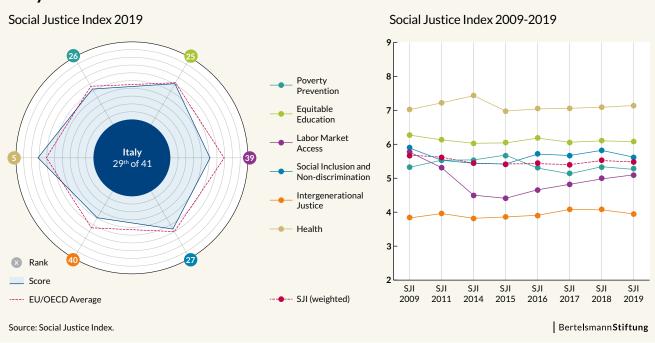
together)." These "streams are not equal in educational achievement or budget." PISA data demonstrate that Israeli students from lower socioeconomic households are more disadvantaged today (rank: 17) than in SJI 2009. However, amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors is comparatively low (rank: 5).

Israel's notoriously high poverty has seen little progress and remains among the highest in our study. With a dismal score of 2.57 the country places second-to-last. With 17.9% of the total population at risk of poverty, this is the highest value in our sample (rank: 41). The country experts warn that "the poverty rate within the Arab minority group is three times higher than in the Jewish majority group, with a similar rate evident in the ultra-orthodox Jewish group." The share of chil-dren and youth (under 18) at risk of poverty remains virtual the same today as ten years ago: 23.7% (rank: 40). In contrast, the share of seniors at risk of poverty has nominally decreased to 19.9% – one in five seniors (rank: 33). "Recent research indicates that post-retirement income-level inequalities are due to the large gaps in pension saving in different socioeconomic groups."

# Italy<sup>188</sup>

Italy has witnessed little movement on the SJI over the past ten years. With a score of 5.49, its places 29<sup>th</sup> out of 41 countries. How Italy measures up against its peers varies across the six social justice dimensions: it scores below average on five

<sup>188</sup> Quotations in the following section can be found in the Country Report for Italy: Cotta, Maruhn and Colino (2019), available at www.sgi-network.org.



Italy

dimensions, including ranking second-to-last on Intergenerational Justice and 39<sup>th</sup> on Labor Market Access, but ranks 5<sup>th</sup> on Health. All but the latter dimension show little to no change going ten years back.

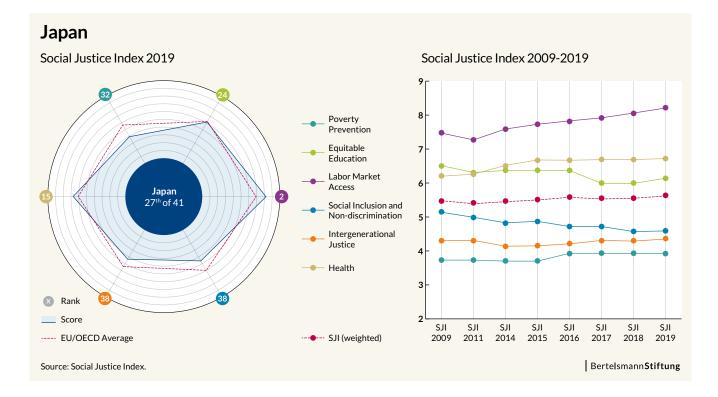
Italy has seen the greatest loss in score over SJI 2009 on Labor Market Access (score: 5.10, rank: 39). The country experts note a longstanding, problematic feature of the labor market: "the polarization between protected sectors and those that are largely unprotected and precarious. While older workers in the public sector and in large firms of the private sector enjoy sufficient and, in some cases, even excessive protection, young people and in general those working for small private sector firms are much less protected." The level of employment today (58.5%, rank: 39) remains one of the lowest in our sample and has shifted little over the past ten years; even during the global financial crisis, employment fell but a few percentage points. In contrast, over the same period the employment rate of persons 55 to 64 has risen sizably from 34.3% to 53.7% (rank: 30). The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has risen sharply from an already high 41.3% a decade ago to 65.7% (rank: 40). The unemployment rate, 10.8%, remains likewise higher than before the crisis (rank: 38). The same holds true among the segment of the labor force without upper secondary education, where 13.5% are unemployed (rank: 33), and among youth, where 32.2% are unemployed (rank: 39).

Italy also has tremendous problems in ensuring justice between generations. The country ranks second-to-last on our Intergenerational Justice dimension and has not improved its performance over the last 10 years (score: 3.95). This is not least due to the Italian state's continuing high level of debt since the crisis (rank: 39). Calculated per child, the situation looks particularly stark: every child in Italy cur-

rently bears a burden of I\$392,000 (rank: 40). In addition, demographic pressure is particularly high in Italy. With 36.9 persons of retirement age per 100 persons of working age, Italy is the second oldest country in demographic terms. Japan is the only country with an even more problematic age structure (Age dependency ratio: 46%). Although the pension system in Italy underwent a major reform in 2011, raising the retirement age and cutting subsidies for high-income groups, the sustainability and intergenerational equity of the pension system is failing due to the lack of social security contributions. The lack of sufficient action to relieve the burden on younger generations is also reflected in the risk of poverty, as (only) 7.6% of older people are at risk of poverty (rank: 16), while the proportion of children and young people at risk is more than twice as high at 18.4% (rank: 33). The country experts point explicitly to the poor future prospects: "The problem of poverty prevention which exists today for an already significant share of the population will be much more relevant for the young cohorts of today when they reach retirement age."

## Japan<sup>189</sup>

Japan's overall performance on the SJI has shifted little over the past ten years. With a score of 5.62, it ranks 27<sup>th</sup>. On four of the six social justice dimensions in our assessment, Japan scores below average, twice placing among the bottom five. Only once – on our Labor Market Access dimension – does it earn one of the highest scores in our sample.



189 Quotations in the following section can be found in the Country Report for Japan: Pascha, Köllner and Croissant (2019), available at www.sgi-network.org. Since SJI 2009, Japanese policies have incrementally expanded access to the labor market (score: 8.21, rank: 2). On eight of the eleven (quantitative) metrics that comprise this dimension, Japan has witnessed improvements over ten years ago. The overall level of employment today (76.8%) as well as the employment rate of persons 55 to 64 (75.2%) are at their highest, ranking the country 6<sup>th</sup> and 4<sup>th</sup> respectively. During the global financial crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) rose to 30.8%, but has since fallen to 17.5% (rank: 20). The unemployment rate, 2.6%, is the second lowest in our sample. Japanese labor market policies have also made commendable progress reducing youth unemployment, which has fallen to 3.8% (rank: 1). Notwithstanding, according to the SGI country experts, "a major concern is that young people have difficulty finding permanent employment positions."

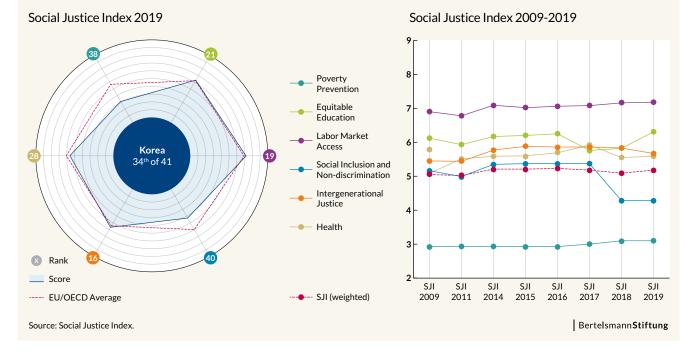
Japan ranks 38<sup>th</sup> (score: 4.60) on our dimension assessing progress in ensuring social inclusion and that members of society are free from discrimination. Since our first assessment in SJI 2009, Japan has placed poorly on this dimension. Income inequality has remained stubbornly fixed over the past ten years; with a Gini coefficient ranking 30<sup>th</sup> in our study. Japan places last for the share of parliamentary seats held by women (10.1%, until better data are available, we use this as a proxy for gender equality in society). Based on 2016 data, "women's average salaries remain 27% below those of their male colleagues." Also, educational attainment differs measurably between the native-born and foreign-born population segments, with the latter far less likely to have completed upper secondary (rank: 31). "According to a 2016 – 2017 Ministry of Justice survey, one in three foreigners have experienced discrimination in the form of derogatory remarks, housing discrimination or similar such behavior." The country experts report that "there is little integration policy as such, with the government working to facilitate short-term foreign-work stays rather than long-term immigration."

#### Korea<sup>190</sup>

Overall, Korea's score on the SJI 2019 continues to place it among the bottom ten countries in our assessment. The country's score – 5.18 – has shifted little over the past ten years and ranks 34<sup>th</sup> among the 41 countries. Korea scores above average on half of our six social justice dimensions but falls twice among the bottom five countries (i.e., Poverty Prevention and Social Inclusion/Non-discrimination).

Korea places highest on our dimension assessing the extent to which policy outcomes are intergenerationally just. The country's score on this dimension of 5.67 (rank: 16) has remained largely stable over the past eight editions. Across the diverse indicators, we observe contrasting performance. Maintaining high employment in a modern economy requires robust investment in innovation. Research and development spending has increased more in Korea over the past ten years than in any other country in our sample. Government-financed expenditures on R&D have increased from 0.65% of GDP ten years ago to 0.98% (rank: 1). Private-sector expenditures are likewise higher today, having increased from 2.18% of GDP to 3.57% (rank: 2). The SGI country experts find that "Korea has an excellent

<sup>190</sup> Quotations in the following section can be found in the Country Report for Korea: Kalinowski, Rhyu and Croissant (2019), available at www.sgi-network.org.



### Korea

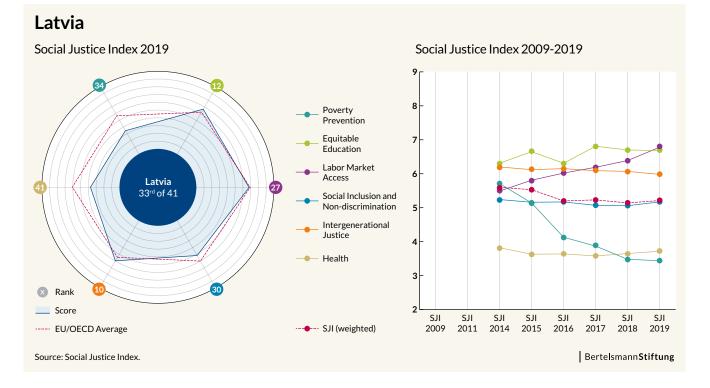
research infrastructure, with many world-class universities and research institutes that produce internationally competitive research and patents." Observing, however, that "what impedes innovation is mostly the Korean market's oligopolistic structure, which makes it difficult for entrepreneurs and SMEs to succeed." Intergenerational justice also requires a sustainable public budget. At 40.71% of GDP (rank: 17), government debt is about 13 percentage points higher than ten years ago. Considered another way, government debt per child has increased from I\$45,000 to I\$126,000 (rank: 18). Beyond the national level, the country experts report that "many local governments and many public enterprises are struggling due to insufficient revenues." Finally, a truly broad-based intergenerationally just policy strategy requires tangible interventions to combat climate change. However, Korea shows weaknesses particularly on this aspect. A miniscule 2.7% of energy consumed by end users (e.g., households and industry) comes from renewable sources, the lowest level in our study. Also, per capita greenhouse gas emissions have increased to 13.53 metric tons (rank: 34) over a period when most countries in our sample trimmed emissions levels compared to ten years ago.

Korea has witnessed the greatest score loss over a decade ago on our dimension on strengthening social inclusion and combating discrimination. Today, it ranks second-to-last, with a score of 4.28. Educational attainment differs considerably between the native-born and foreign-born population segments, with upper secondary completion showing the greatest disparity in our sample. The Korean National Assembly has among the lowest proportion of seats held by women of any national parliament in our sample: 17.0%, (until better data are available, we use this as a proxy for gender equality in society). Likewise essential for long-term social cohesion, overall income inequality remains high; with a Gini coefficient ranking 34<sup>th</sup>. The country experts report that "discrimination remains a major problem in South Korea particularly for women, migrants, LGBT people and North Korean defectors." "According to a study by the National Human Rights Commission of Korea, half of the North Korean defectors in South Korea have suffered from discrimination, primarily directed at them by people on the street (20.6%), their supervisors (17.9%) or by co-workers (16.5%)."

#### Latvia<sup>191</sup>

Latvia's overall SJI score of 5.21 places it 33<sup>rd</sup> amongst the 41 countries in our comparative study. For two of the six social justice dimensions in our assessment, it ranks among the bottom ten, including last on Health. The country scores above average on two dimensions (i.e., Equitable Education and Intergenerational Justice). Since joining our study in SJI 2014, Latvia has suffered the deepest cut in score on our Poverty Prevention dimension.

In SJI 2019, Latvia ranks comparatively high on our dimension assessing the quality and equitability of the education system (score: 6.68, rank: 12). The Latvian education system ranks 8<sup>th</sup> for the comparatively low impact socioeconomic factors have on the PISA results of its students. Amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has decreased (rank: 16). The SGI country experts note that in rural regions "schools are often unsustainably small with poor educational outcomes." As a percentage of GDP, public expenditure on pre-primary education totaled 0.80%, ranking Latvia 6<sup>th</sup>. In context, public expenditure peaked at 1.13% of GDP in SJI 2015 but has since fallen lower. Much



191 Quotations in the following section can be found in the Country Report for Latvia: Mangule, Auers and Jahn (2019), available at www.sgi-network.org.

evidence has shown that these early investments in children's education yield significant, lifelong positive effects. In addition, the working-age population is highly educated: a comparatively small 9.3% lack an upper secondary education (rank: 7). Where Latvia particularly stumbles is on education parity between women and men, with women highly disadvantaged by the education system (rank: 37). Another (looming) challenge is teacher retirements "over the next decade" as "around 45% of primary to upper secondary school teachers are at least 50 years old."

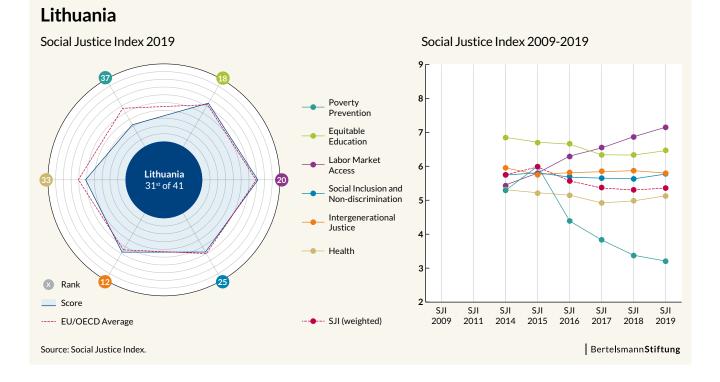
Latvia faces several major policy challenges to achieve broad-based social justice, including preventing poverty. Since SJI 2014, the country's score on this dimension has tumbled from a moderate 5.71 to a dismal 3.45 (rank: 34). The current overall level of poverty vulnerability, 16.3% (rank: 35), is lower than at the peak of the global financial crisis. On deeper examination, we observe opposing trends in two population groups. A lower share of children and youth (under 18) risk poverty today than five years ago: 12.7%, down from 16.3% (rank: 22). In the same period, the share of seniors at risk of poverty has increased: 29.4%, up from 6.5% (rank: 40). "In a 2018 report, the OECD highlighted the need for Latvia to strengthen the social safety net for elderly people and raise the basic state pension in order to reduce poverty among pensioners (especially among women)."

# Lithuania<sup>192</sup>

Overall, Lithuania's score has somewhat worsened over SJI 2014: 5.36 in in this year's edition, placing 31<sup>st</sup>. The country's performance across our six social justice dimensions varies radically. We observe the greatest loss in score over SJI 2014 on our Poverty Prevention dimension. In contrast, the Lithuanian labor market has progressively improved.

Improvements to Lithuania's labor market have become readily evident in recent years. The country's score on this dimension has risen from 5.45 to 7.15 (rank: 20). The level of employment today (72.4%) is the highest in at least ten years and the employment of persons 55 to 64 has risen sizably from 53.0% ten years ago to 68.5%. Commendably, the employment gap between women and men is the lowest in our sample. Similarly, disparities in employment between native-born and foreign-born workers have fallen (rank: 2). Here the SGI country experts note that since most foreign residents are coming from Ukraine, Russia and Belarus, "their integration into Lithuanian society has not been very difficult." The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has fallen from a peak of 39.2% during the global financial crisis to remains high at 24.4% (rank: 26). Unfortunately, the state of the unemployed population is less rosy. The unemployment rate, 6.3% (rank: 28), has fallen after peaking during the crisis at 18.1%, but remains higher than ten years ago. Unemployment in the segment of the labor force without upper secondary education – 19.0% – remains higher in Lithuania than in most of the countries in our assessment (rank: 38). The SGI country experts report that "a mismatch between labor supply and market demand has become the main issue of the labor market," with "skills shortages emerging in some sectors of the economy."

<sup>192</sup> Quotations in the following section can be found in the Country Report for Lithuania: Vitalis, Vilpišauskas and Jahn 2019), available at www.sgi-network.org.

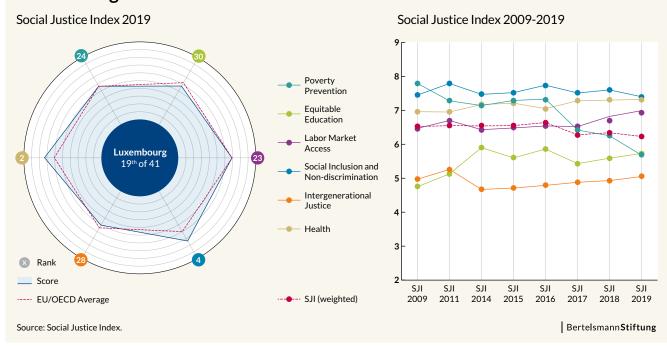


One of Lithuania's principal social justice challenges is poverty. The country has plummeted from a moderate score of 5.29 on this dimension to an alarming 3.21 (rank: 37). The current overall level of poverty vulnerability, 15.8% (rank: 34), remains higher than a decade ago. This worsening is reflected in two population groups. 17.0% of children and youth (under 18) risk poverty today (rank: 32). The share of seniors at risk of poverty has peaked in SJI 2019 at 22.6% (rank: 35) – over one in five seniors are vulnerable to poverty. "Families with many children, people living in rural areas, youth and disabled people, unemployed people and elderly people are the demographic groups with the highest poverty risk." The country experts advise "a mix of government interventions (general improvements to the business environment, active labor-market measures, adequate education and training, cash social assistance, and social services targeted at the most vulnerable groups) is needed in order to ameliorate Lithuania's remaining problems of poverty and social exclusion."

### Luxembourg<sup>193</sup>

With an overall score of 6.23 on the SJI, Luxembourg ranks 19<sup>th</sup> in our 2019 edition. The country ranks among the top three on two of our index's six social justice dimensions: 2<sup>nd</sup> on Health and 3<sup>rd</sup> on Social Inclusion/Non-discrimination. The past ten years have seen a sizable drop in score on our Poverty Prevention dimension. Luxembourg's score falls below average twice (i.e., Equitable Education and Intergenerational Justice).

<sup>193</sup> Quotations in the following section can be found in the Country Report for Luxembourg: Zenthöfer, Lorig and Bandelow (2019), available at www.sgi-network.org.



### Luxembourg

Since illness undermines an individual's capacity to fully attain their potential, access to quality health care is considered a vital precondition for social inclusion. Luxembourg deserves praise for being a leader in our Health dimension with a score of 7.32 (rank: 2). On average, Luxembourgers can expect 72.6 years without a limitation in functioning and without disability (rank: 14), about 2 years more than in SJI 2009. Over the past ten years, infant mortality has declined somewhat: 2.1 per 1,000 live births (rank: 5). In this same period, the number of practicing physicians has grown slightly; with 3.0 physicians per 1,000 inhabitants, Luxembourg ranks 30<sup>th</sup>. The SGI country experts observe that "due to the country's small size and the absence of a university hospital, it is not possible to provide all medical treatments;" instead, patients are transferred to other EU countries for treatment. We do observe that the share of health care expenses being shouldered by households has grown modestly to 11.2% but remains among the lowest in our sample (rank: 3).

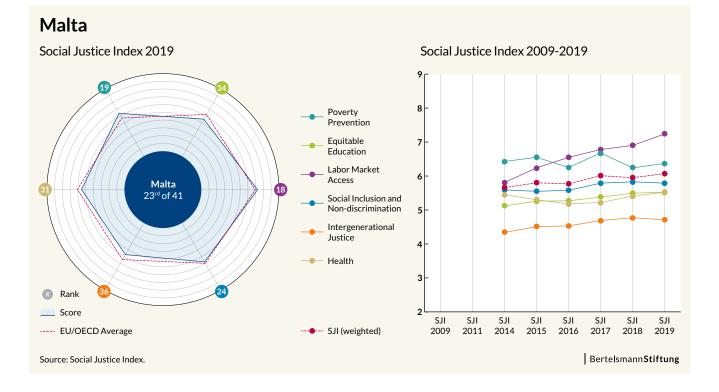
Luxembourg's education system continues to pose among the greatest policy challenges. With a score of 5.73, it has improved since our first assessment ten years ago but remains among the bottom third (rank: 30). The share of the adult population without upper secondary education – 21.4% – has declined in comparison to ten years but remains high comparative to many peers (rank: 30). We observe that the gap in educational attainment between women and men has nearly vanished, reaching near parity with regards to upper secondary (rank: 3). Students from lower socioeconomic households remain more disadvantaged in Luxembourg than in most of the countries in our study. The country places 35<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors is particularly stark (rank: 39).

The country experts report that "there is a marked division between Luxembourg nationals and migrant students, as migrants (especially the Portuguese minority) generally struggle with the country's three languages and often end up in the technical track (secondaire technique), which affects their progress toward a university education. Recent studies have shown that migrant students are four times less likely to transfer to the higher-level university-oriented early school track (enseignement secondaire) than Luxembourgish nationals."

#### Malta<sup>194</sup>

Malta's overall performance on the SJI has nominally improved over our 2014 edition and places near the average. In the current index, it ranks 23<sup>rd</sup> with a score of 6.07. Across our six social justice dimensions, Malta scores above average on two dimensions and places among the bottom third on three dimensions.

Since first being assessed in SJI 2014, Malta has seen the most improvement in expanding access to the labor market (score: 7.24, rank: 18). Looking back the full ten years covered in our study, we observe that the Maltese labor market has largely surpassed pre-global financial crisis levels. The overall level of employment today has increased from 55.5% to 71.4% (rank: 19). The employment rate of persons 55 to 64 (49.7%) is the highest in ten years, though it remains far lower than in most of our sample (rank: 34). The chasm in employment between women and men has narrowed substantially but remains far too wide (rank: 36).



194 Quotations in the following section can be found in the Country Report for Luxembourg: Pirotta, Calleja and Colino (2019), available at www.sgi-network.org.

The SGI country experts point to several recent policy interventions aiming to increase the labor market participation of women, including "the introduction of free child-care centers in 2014, along with the strengthening of breakfast and after-school clubs (...) The government has also established a collective maternity fund financed by the private sector, with the goal of reducing discrimination." Prior to the crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) was 15.8%, but has likewise fallen to a ten-year low: 9.6% (rank: 9). The unemployment rate, 3.8%, is below pre-crisis levels after peaking in SJI 2011 at 6.9% (rank: 7). The same hold true among the segment of the labor force unemployed for a year or more (1.2%, rank: 16) and among youth (9.2%, rank: 11).

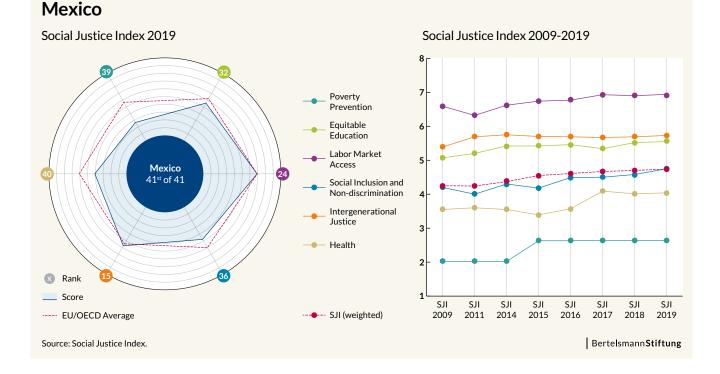
Malta faces some of its most serious challenges within its education system. With a score of 5.53, the country ranks 34<sup>th</sup> out of 41 countries on this dimension. "Due to a lack of natural resources in Malta, economic growth is intrinsically linked to human resources. Attracting investment and sustaining employment depend very much on the skill and education levels of the workforce." Yet, government spending on pre-primary education is far lower today than ten years ago. As a percentage of GDP, public expenditure has been halved: from 1.02% to 0.53%. These cuts are detrimental to Maltese society as much evidence has shown that early investments in children's education yield significant, lifelong positive effects. With regards to the adult population, the share without upper secondary education has plummeted from 72.2% ten years ago to 46.7% but remains among the highest (rank: 38). We do observe that the gap in educational attainment between women and men has vanished, reaching near parity with regards to upper secondary (rank: 1).

### Mexico<sup>195</sup>

Mexico's overall performance on the SJI continues to place it among the countries most urgently in need of policy reforms. With a score of 4.76, it ranks last in our comparative assessment. On each of our six social justice dimensions, Mexi-co's score has improved over ten years ago. At the same time, the country places among the bottom three on preventing poverty and providing equitable access to quality health care.

The Mexican labor market has modestly improved over ten years ago (score: 6.96, rank: 24). The level of employment (61.5%, rank: 37) and the employment of persons 55 to 64 (55.3%, rank: 26) has barely shifted over the past ten years. The employment gap between women and men has likewise changed little and is the second highest in our sample. Where the Mexican labor market has seen a sizable reduction is in the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment), which has fallen from 26.1% a decade ago to 10.3% (rank: 12). The country's unemployment figures appear far more favorable but must be taken in context. The overall unemployment rate, 3.4%, ranks 4<sup>th</sup> among the 41 countries. Among specific segments of the unemployed we observe similar top-five performance: without upper secondary education (2.2%, rank:

<sup>195</sup> Quotations in the following section can be found in the Country Report for Mexico: Muno, Faust and Thunert (2019), available at www.sgi-network.org.



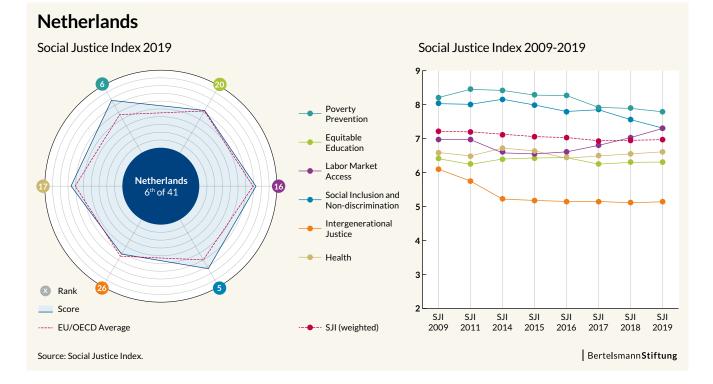
2), unemployed for a year or more (0.1%, rank: 2), youth (6.9%, rank: 5). These unemployment figures so starkly contrast the employment figures because of the very large informal sector. "According to government estimations, this segment of the workforce accounts for 57% of the economically active population." The SGI country experts also observe that "informality is also heterogeneous across regions, with the southern regions of the country generally performing worse."

Ensuring equitable access to quality health care is an essential pillar of social justice. Mexico's score on our Health dimension has meaningfully improved over the ten years but remains the second lowest in our sample (score: 4.06). On average, Mexicans can expect 67.7 years without a limitation in functioning and without disability (rank: 35), about seven years less than in Japan. The Mexican health system has the highest infant mortality in our sample, 11.5 per 1,000 live births. The country experts find that "the quality of health care varies widely across Mexico, with different regions showing broad variation in the quality and variety of services available." The number of practicing physicians is among the lowest: 2.4 physicians per 1,000 inhabitants, ranking 38th. "Around one-third of the population (most of whom work in the formal sector) can access health care through state-run occupational and contributory insurance schemes." To extend insurance into the large informal sector, the government in 2003 setup a voluntary, means-tested, contribution-based program "supplemented by substantial government subsidies." Consequently, over time the share of health care expenses being shouldered by households has declined to 40.4%, though this remains exceedingly high (rank: 38).

# Netherlands<sup>196</sup>

The Netherlands counts among the more socially just countries. It ranks 6<sup>th</sup> in this edition, with an overall score of 6.97. Looking back to SJI 2009, we observe mixed results across our six social justice dimensions. The Netherlands places among the top ten on two dimensions: Poverty Prevention and Social Inclusion/ Non-discrimination. The period has seen losses, however, as some peers have moved ahead, most starkly on the dimensions Equitable Education and Intergenerational Justice.

The Netherlands has demonstrable successes in fostering an inclusive society, achieving a score of 7.31 (rank: 5) on our dimension Social Inclusion and Non-discrimination. Income inequality within Dutch society has remained fundamentally stable over the past decade; with a Gini coefficient ranking 10<sup>th</sup>. Also, the Netherlands ranks 11<sup>th</sup> in our indicator on gender equality in national parliaments. In the Dutch national parliament (Staten-Generaal), 36.0% of seats are held by women (until better data are available, we use this as a proxy for gender equality in society). The SGI country experts observe that "on average, personal incomes among men (€40,200) are much higher than personal incomes among women (€23,800)." Where there has seen particular success is at activating young adults: the Netherlands has the second lowest NEET rate in our sample. A comparatively low 6.3% of 20-to-24-year-olds are neither in employment nor participating in education or training. The country experts warn, however, about "the broad-based and well above the European average negative climate of opinion and stereotyping of Muslims."



196 Quotations in the following section can be found in the Country Report for the Netherlands: Hoppe, Krouwel and Bandelow (2019), available at www.sgi-network.org.

That opportunities for a quality education are equitably distributed is an indispensable component of social justice, with lifelong consequences. Yet the Dutch education system has barely shifted while many of its peers have surged ahead over this period (score: 6.31, rank: 20). Public expenditure on pre-primary education – already comparatively low ten years ago – has been cut further to 0.35% of GDP, ranking 31<sup>st</sup> out of 41 countries. Such low funding is detrimental to Dutch society as much evidence has shown that early investments in children's education yield significant, lifelong positive effects. The share of the adult population without upper secondary education has fallen from 28.6% in SJI 2009 to 21.0 (rank: 29). Also, education outcomes vary starkly by socioeconomic background. The Netherlands places 29th with regard to the impact socioeconomic factors have on the PISA performance of students. "Social background and parents' level of educational attainment are increasingly predictive of students' educational achievements." Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has increased according to the most recent assessment (rank: 27). The country experts also report a "growing gap between higher education and secondary professional education [which] reflects differences in socioeconomic status and ethnic backgrounds." We do observe over the past 10 years a closing chasm in educational attainment between women and men (rank: 5). Even so, "the proportion of women studying science, technology, engineering, mathematics, manufacturing and construction is low, while women are overrepresented in the education, health care and welfare sectors."

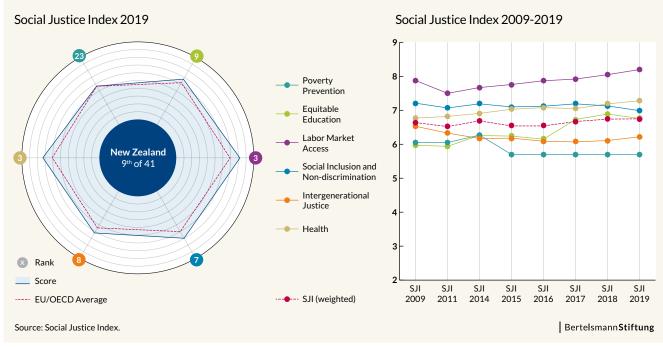
#### New Zealand<sup>197</sup>

Over the past ten years, New Zealand has maintained generally stable performance overall. It scores 6.75 in 2019, ranking 9<sup>th</sup> out of 41 countries. Furthermore, it scores at or above average on all six dimensions of social justice, ranking 3<sup>rd</sup> on both Labor Market Access and Health.

A quality and equitable education system is an essential pillar of social justice. Past education policies have yielded several strengths, with the system showing an overall improvement from 5.97 in SJI 2009 to 6.76 (rank: 9). On all six quantitative indicators on education, we witness improvements compared to ten years ago. The gap in educational attainment between women and men has narrowed, ranking the system 9<sup>th</sup> with regards to upper secondary. The share of the adult population without upper secondary education has declined over the past decade from 25.9% to 19.5% (rank: 25). The education system shows improving, though still below average, achievement on ensuring that learning opportunities do not favor particular socioeconomic groups. PISA data demonstrate that students from lower socioeconomic households are less disadvantaged today (rank: 31) than in SJI 2009. Likewise, amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has decreased (rank: 23).

New Zealand's policymakers are grappling with securing outcomes that remain intergenerationally just (score: 6.22, rank: 8). Among other requisite conditions,

<sup>197</sup> Quotations in the following section can be found in the Country Report for New Zealand: Croissant and Miller (2019), available at www.sgi-network.org.



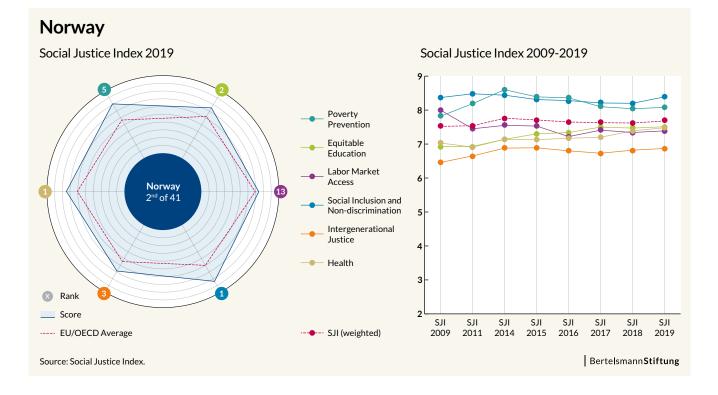
# **New Zealand**

intergenerational justice requires a sustainable public budget. Government debt climbed to 34.60% during the global financial crisis but has since declined 29.39% (rank: 6). Since SJI 2009, however, public debt per child has more than doubled: from I\$28,000 per child to I\$60,000 (rank: 6). While public debt has risen compared to ten years ago, research and development spending - vital to long-term economic competitiveness - has altered little from the public sector. Government-financed expenditures on R&D total 0.47% of GDP (rank: 22). In contrast, private-sector expenditures have risen over the past ten years to 0.77% (rank: 25). Even so, in aggregate, this comparatively low level of direct investment undermines the innovation dexterity necessary to maintain high employment in a modern economy. Finally, a truly broad-based intergenerationally just policy strategy requires tangible interventions to combat climate change. 30.8% of energy consumed by end users (e.g., households and industry) comes from renewable sources (rank: 9), showing no significant improvement over the past decade. Per capita greenhouse gas emissions have slightly decreased to 16.87 metric tons, but New Zealand remains one of the highest emitters (rank: 37). The SGI country experts report that New Zealand's highest emissions source "is methane from farm animals," with the OECD finding that the country's agriculture-related emissions are the highest in the OECD.

## Norway<sup>198</sup>

Norway maintains its reign as one of the most socially just countries in our index. It ranks 2<sup>nd</sup>, behind Iceland, with an overall score of 7.68. Norway's overall performance has remained stable over the past ten years. This success is broad-based, with the country ranking among the top five on five of our six social justice dimensions. It places most poorly on the Labor Market Access dimension (rank: 13), where we observe a fall in score.

The third rank on the Intergenerational Justice dimension (score: 6.87) reflects Norway's success in taking into account the interests of both younger and older generations. With a voluminous oil fund that secures the pensions of Norwegian citizens and the early implementation of retirement age reforms, the pension system is sustainable to the extent that the pressure on younger generations is dampened. A good family policy additionally supports young families, so that, as the SGI countries experts point out, "with birth rates that have been persistently high by European standards, the demographic burden is less than in most comparable countries." The age dependency ratio (rank: 15) demonstrates this, as there are only 26.1 persons of retirement age per 100 persons of working age in Norway. By comparison, the rate in Sweden is 32.3 and in Finland 34.9. Norway's performance varies considerably in terms of climate and environmental protection. Although Norway has the second highest share of renewable energy (57.8%), expansion has more or less stagnated since 2009. Norway has made progress in reducing greenhouse gas emissions over the past 10 years, but at 9.99 metric



198 Quotations in the following section can be found in the Country Report for Norway: Sverdrup, Ringen and Jahn (2019), available at www.sgi-network.org.

tons per capita (2009: 12.11 metric tons) still emits a comparatively high level of climate-damaging gases (rank: 25). Also, it is clearly a positive note that the Norwegian state invests 0.93% of its GDP in research and development and thus in the country's economic competitiveness.

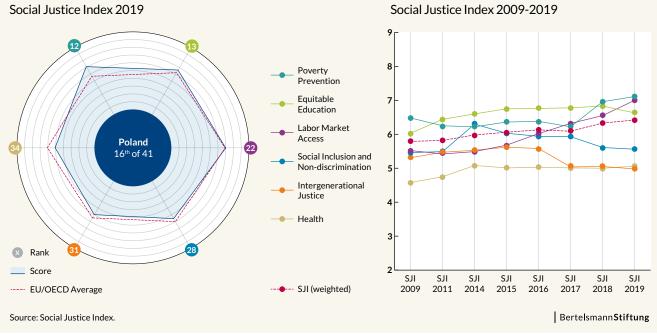
Norway's score on our dimension assessing labor market opportunities has moderately worsened over SJI 2009 while some peers have moved ahead (score: 7.39, rank: 13). On most of the (quantitative) metrics that comprise this dimension, Norway is worse off today than ten years ago. The overall level of employment has fallen from 78.0% to 74.8% (rank: 9). The share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) has climbed from 16.3% to 20.6% (rank: 22). Disparities in employment between native-born and foreign-born workers have scarcely shifted (rank: 25). The country experts report that "non-Western immigrants experience higher unemployment rates and lower wages than native Norwegians." The unemployment rate, 3.9%, has recently declined but remains higher than before the global financial crisis (rank: 9). The same holds true among the segment of the labor force without upper secondary education, where 6.3% are unemployed (rank: 11), and among youth, where 9.7% are unemployed (rank: 14). The experts note that "the level of absenteeism (short- and long-term illness and disability) is also high, potentially undermining the validity of unemployment statistics."

## Poland<sup>199</sup>

Poland's overall performance on the SJI has improved since ten years ago. In the 2019 edition, it ranks 16<sup>th</sup> with a score of 6.42. On three of our six social justice dimensions, the country's score has meaningfully improved over ten years ago. Yet only on half of the dimensions does it score above average. Poland's score has fallen slightly on our Intergenerational Justice dimension.

Recent governments can be commended for improving some outcomes relating to social justice, in particular in expanding access to the Polish labor market. Though Poland ranks 22<sup>nd</sup>, we observe tremendous gains, with a score climbing from 5.42 at the height of the global financial crisis to 7.00. Across the eleven quantitative indicators of this dimension, we observe that the Polish labor market has surpassed pre-global financial crisis levels. The overall level of employment today (67.4%) as well as the employment rate of persons 55 to 64 (48.9%) are the highest in ten years, though in both the Polish labor market ranks among the bottom third. During the crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) peaked at 32.3%, but has since gradually decreased to the lowest level in a decade: 15.9% (rank: 18). In contrast, the chasm in employment between women and men has shifted little (rank: 32). The SGI country experts report that since the government's "500+" child allowance policy was introduced, "it is estimated that over 100,000 women have withdrawn from the labor market." The unemployment rate, 3.9%, is the lowest in ten years (rank: 9). Among specific segments of the unemployed we observe similar results: without upper secondary education (9.3%, rank: 27), unemployed for a year or more (1.1%, rank: 12), youth (11.7%, rank: 21).

<sup>199</sup> Quotations in the following section can be found in the Country Report for Poland: Matthes, Markowski and Bönker (2019), available at www.sgi-network.org.



In recent years, Poland is increasingly struggling to secure outcomes that are intergenerationally just (score: 4.98, rank: 31). Research and development spending is vital to long-term economic competitiveness. Government-financed expenditures on R&D have been decreased from 0.45% of GDP in SJI 2015 to 0.37% (rank: 28). Private-sector expenditures have steadily risen over the past ten years but only to 0.59% (rank: 32). In aggregate, this comparatively low level of direct investment undermines the innovation dexterity necessary to maintain high employment in a modern economy. In addition, a truly broad-based intergenerationally just policy strategy requires tangible interventions to combat climate change. The share of energy consumed by end users (e.g., households and industry) coming from renewable sources has increased from 7.2% ten years ago to 11.9% (rank: 28). Per capita greenhouse gas emissions have barely shifted over this period: 10.90 metric tons in SJI 2019 (rank: 29). The country experts observe that "there is a broad political consensus in the country that economic growth should be given priority over protection of the environment. All governments have been especially keen on protecting the domestic coal industry, which is a large employer and reduces the country's dependence on Russian energy, an issue that has taken on even greater prominence since the Ukrainian crisis." "Three new coal power stations are being built in Opole, Jaworzno and Kozienice" even though, "according to the World Health Organization, 33 of the 50 most-polluted towns in Europe in 2016 are in Poland. On 17 January 2017, all schools in Poland were closed due to high levels of smog."

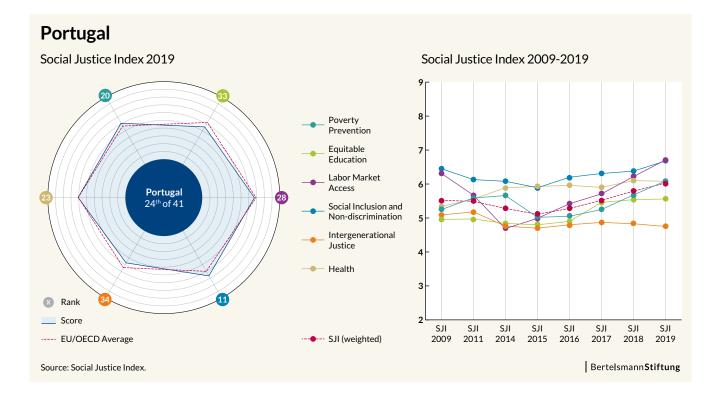
Poland

## Portugal<sup>200</sup>

Portugal's SJI score of 6.03 reflects a decade of moderate improvement and places it 24<sup>th</sup> among the 41 countries in our study. We observe starkly varying outcomes across our six dimensions of social justice. Portugal ranks among the top third on the dimension Social Inclusion/Non-discrimination, but among the bottom ten on the dimensions Equitable Education and Intergenerational Justice.

Although the country's performance on our Labor Market Access dimension is still below average (rank: 28), it has improved enormously in recent years (score: 6.71). Thus, the score on this dimension increased by more than two points compared to SJI 2014. During this period, the unemployment rate was reduced from 17.0% to 7.3% and is for the first time again below the pre-crisis level. Long-term unemployment was also successfully combated. The corresponding rate is currently 3.2% (rank: 34), in SJI 2014 it was three times as high at 9.6%. Opportunities on the labor market for young people have also improved considerably since SJI 2014. Since then, youth unemployment has been almost halved, but at 20.3% it remains high (rank: 36). In contrast, the share of involuntary part-time work has increased. Currently, almost half (45.2%) of part-time workers work part-time because they are unable to secure full-time employment.

We observe a moderate worsening on the Intergenerational Justice dimension compared to SJI 2009 and a surpassing by many of its peers (score: 4.75, rank: 34). Policy performance across the various quantitative and qualitative indicators of



200 Quotations in the following section can be found in the Country Report for Portugal: Jalali, Bruneau and Colino (2019), available at www.sgi-network.org.

this dimension differ considerably, with several weaknesses and some strengths worth noting. Particularly alarming, already high government debt has further skyrocketed over the past ten years from 71.67% of GDP to 130.59% at the peak of the crisis to 121.44% (rank: 38). Considered another way, government debt per child has increased from I\$121,000 ten years ago to I\$281,000 (rank: 36). While public debt remains astronomical, public research and development spending has largely stagnated in recent years, a victim to external pressure for Portugal to curb public expenditures as well as budgetary consolidation. Government-financed expenditures on R&D are just 0.55% of GDP (rank: 17). We do observe that private-sector expenditures (0.73% of GDP) are higher than a decade ago (rank: 26). Yet, in aggregate, this comparatively low investment undermines the innovation dexterity necessary to maintain high employment in a modern economy.

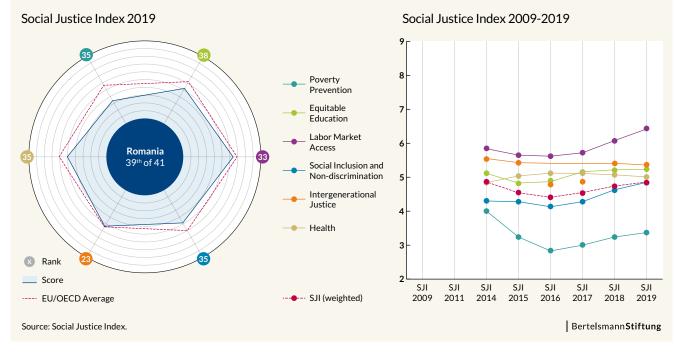
#### Romania<sup>201</sup>

Romania's overall score on the SJI continues to place it among the countries most urgently in need of progressive policy reforms. With a score of 4.86, it ranks 39<sup>th</sup> among the 41 countries. Across all six social justice dimensions in our study, Romania scores below average – on five among the bottom ten countries.

Romania ranks highest with regard to ensuring outcomes are intergenerationally just. With a score of 5.36, it places 23<sup>rd</sup> on this dimension. An intergenerationally just policy strategy requires tangible interventions to combat climate change. In Romania, the share of energy consumed by end users (e.g., households and industry) coming from renewable sources has increased from 18.5% ten years ago to 23.7% (rank: 15). In parallel, per capita greenhouse gas emissions have sunken to 5.81 metric tons, placing Romania a commendable 5<sup>th</sup> in our study. To be intergenerationally just, the overall policy strategy must also maintain a sustainable budget. Since climbing during the global financial crisis, the level of government debt has remained rather stable. With government debt at 36.6% of GDP, Romania ranks 11<sup>th</sup> in our sample. Considered another way, this places a burden of I\$62,000 on the shoulders of each Romanian child. This comparatively low level of public debt has misguidedly been maintained in part by exceedingly low public spending on research and development. Government-financed expenditures on R&D are just 0.19% of GDP (rank: 38). Private-sector expenditures are higher (0.29% of GDP) but likewise among the lowest in our sample (rank: 38). The SGI country experts report that "the allocation of research grants has been blocked by bureaucratic impediments, the central government's withholding of funds and the mass expulsion of foreign scholars from adjudicating committees." In aggregate, such counterproductive policies and extremely low investment undermine the innovation dexterity necessary to achieve and maintain high employment in a modern economy.

Among several major policy challenges, most acute in our comparatively analysis remains the education system (score: 5.23, rank: 38). Overall, we observe little movement over the past six editions. The share of the adult population without upper secondary education has declined somewhat over the past several years to 21.5% (rank:

<sup>201</sup> Quotations in the following section can be found in the Country Report for Romania: Wagner, Stan and Bönker (2019), available at www.sgi-network.org.



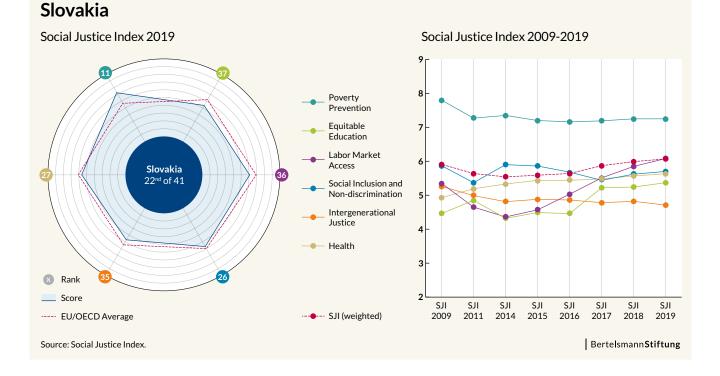
## Romania

31). Also, in comparison to ten years ago, we do observe a closing gap in educational attainment between women and men (rank: 25). Notwithstanding, education outcomes vary starkly by socioeconomic background. The Romanian education system places 33<sup>rd</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors is comparatively less pronounced (rank: 9). Government spending on pre-primary education is far lower today than a decade ago. As a percentage of GDP, public expenditure has been halved: from 0.65% to 0.31% (rank: 35). These cuts are detrimental to Romanian society as much evidence has shown that early investments in children's education yield significant, lifelong positive impacts. The country experts note new "investments in infrastruc-ture and increases in teachers' wages," but warn that "a more comprehensive reform of the education system" is needed "to address structural issues such as the outdated curriculum and the disparate access in rural and urban areas."

#### Slovakia<sup>202</sup>

Slovakia's current SJI score of 6.07 is not much different from ten years ago and ranks the country 22<sup>nd</sup> overall. Its performance across our six social justice dimensions varies greatly, placing 11<sup>th</sup> on Poverty Prevention, while scoring below average on the remaining five dimensions. It places among the bottom ten on three dimensions (i.e., Equitable Education, Labor Market Access and Intergenerational Justice).

<sup>202</sup> Quotations in the following section can be found in the Country Report for Slovakia: Kneuer, Malová and Bönker (2019), available at www.sgi-network.org.



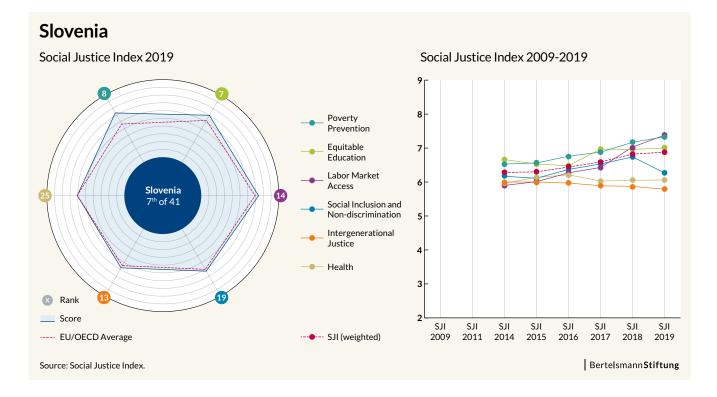
Poverty prevention features as the first dimension in our index because it is such an essential factor in achieving broad-based social justice. Slovakia continues to score relatively well: 7.25 in our current edition. The overall population share at risk of poverty rose from 5.7% ten years ago to 8.4% during the global financial crisis before falling slightly to 7.8% (rank: 9), reflecting opposing trends in two population groups. The SGI country experts credit "growing employment and a redistributive social policy" for the comparatively moderate level of poverty. However, a higher share of children and youth (under 18) risk poverty today than 10 years ago: 13.4% (rank: 25), up from 10.1%. In contrast, the share of seniors at risk of poverty has decreased: 2.2% (rank: 4), down from 2.9%. "The poverty rate among Roma is more than six times higher than for the general population and also higher than in other societies with sizable Roma populations."

Slovakia continues to face serious challenges securing quality and equity within its education system. In comparison to SJI 2009, we observe a moderate improvement overall on this dimension, yet the system continues to yield among the poorest results in our study (score: 5.37, rank: 37). The share of the adult population without upper secondary education is among the lowest in our sample: 8.3% (rank: 4). Yet, though most of the adult population has completed upper secondary, education outcomes vary starkly by socioeconomic background. The education system places 36<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Among students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has decreased, though it remains sizable (rank: 21). The country experts observe that "the implementation of the anti-segregation legislation adopted mid-2015 in order to improve education for Roma children has been hindered by low teacher participation and a lack of teachers able to teach in multicultural settings." Over the past 10 years, we do observe a closing chasm in educational attainment between women and men, though comparatively the disparity remains wide (rank: 31). Overall, the education system remains haunted by "administrative chaos and the lack of political consensus."

# Slovenia<sup>203</sup>

Slovenia's SJI score of 6.88 into 2019 places it 7<sup>th</sup> among the 41 countries in our assessment. The country shows incremental, though moderate, improvement since it was added to the index in 2014. On five of our six social justice dimensions, Slovenia scores above average. It ranks highest on our Equitable Education dimension (rank: 7) and lowest, falling below average, on our Health dimension (rank: 25).

The Slovenian education system has proven more successful than 34 of its peers at ensuring the quality and equity of educational opportunities (score: 7.00). Across all six of our quantitative indicators on education, we witness improvements compared to ten years ago. The SGI country experts find that "Slovenia has moved relatively rapidly from the socialist curriculum tradition toward a more flexible organization of education." The share of the adult population without upper secondary education has steadily declined over the past ten years from 18.0% to 11.9% (rank: 12). We observe a wide, though closing, divide in upper secondary attainment between women and men (rank: 18). The share of 15-year-old stu-



203 Quotations in the following section can be found in the Country Report for Slovenia: Haek, Pickel and Bönker (2019), available at www.sgi-network.org.

dents scoring below the baseline level of proficiency on PISA (8.2%) is comparatively low (rank: 8), confirming that Slovenian students are generally receiving a quality education. Also, students from lower socioeconomic households are less disadvantaged today than in the recent past. Slovenia places 21<sup>st</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has likewise declined (rank: 18).

Slovenia's comparatively low placement on our Health dimension is a consequence of long-standing, middling health care system performance with regard to social justice (score: 6.06). On average, Slovenians can expect 70.5 years without a limitation in functioning and without disability, placing the country 27<sup>th</sup>. In addition, Slovenia also has the second-lowest infant mortality in our sample, 1.7 per 1,000 live births – nearly halving the rate over the past decade. The country experts note that "the Slovenian health care system is dominated by a compulsory public-insurance scheme. This scheme guarantees universal access to basic health services but does not cover all costs and treatments. In order to close this gap, citizens can take out additional insurance offered by Vzajemna, a mutual health insurance organization established in 1999, or, since 2006, additional insurance offered by two other commercial insurance companies." We observe that the share of health care expenses being shouldered by households has declined slightly to 12.0% (rank: 5) – the lowest level in ten years.

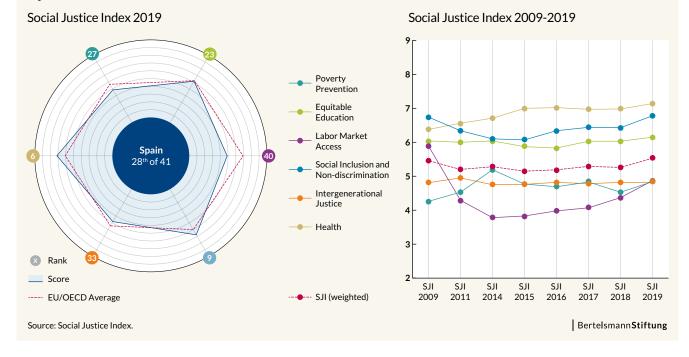
#### Spain<sup>204</sup>

Spain's overall score on the SJI has remained fairly stable and below average over the past decade. With a score of 5.53 it ranks 28<sup>th</sup> among the 41 countries. Indeed, on three of our six dimensions of social justice, the country's score has barely shifted in comparison to ten years ago. On the other three dimensions, we observe opposing shifts: Poverty Prevention (+0.58), Labor Market Access (-1.02) and Health (+0.76).

Spain ranks highest on our Health dimension (score: 7.14, rank: 6). The SGI country experts note that "access to a core set of high-quality health services is guaranteed through a public insurance system that covers 99% of the population." The average Spaniard can expect 73.8 years without a limitation in functioning and without disability, placing 2<sup>nd</sup> (behind Japan). Infant mortality has decreased to 2.6 per 1,000 live births (rank: 10). The number of practicing physicians has only marginally increased since SJI 2009; with 3.8 physicians per 1,000 inhabitants, the Spanish health care system ranks 14<sup>th</sup>. The country experts do report that regional disparities in health care provision remains a challenge.

Spain continues to face major policy challenges to achieving broad-based social justice. Despite signs of recovery from the brutal recession, the greatest of these remains ensuring access to the labor market (score: 4.87, rank: 40). In 2014, unemployment began to fall as the Spanish economy entered recovery. The overall unemployment rate increased from 11.3% ten years ago to 26.2% at the peak of the

<sup>204</sup> Quotations in the following section can be found in the Country Report for Spain: Kölling, Molina and Colino (2019), available at www.sgi-network.org.



#### Spain

crisis before sinking to 15.4% (rank: 40). Similarly, the long-term unemployed have seen their numbers decrease since peaking during the crisis, but the incidence (6.4%, rank: 40) remains three times higher than ten years ago. Those with less than upper secondary education are unemployed at a much higher rate: 20.5% (rank: 39). Among youth, the unemployment rate remains nearly ten percentage points higher than ten years ago. With 34.3% of 15-to-24-year-olds unemployed (rank: 40), the Spanish government faces a truly urgent policy challenge. Yet, the country experts observe that "public-spending cuts implemented in the early 2010s [have] reduced the prevalence of active labor-market programs (e.g., training) designed to help the unemployed find work." Looking at the Spanish labor market from the perspective of the employed, the magnitude of the challenge becomes even clearer. Only 62.4% of the working-age population are employed (rank: 36). During the crisis, the share of workers in part-time employment involuntarily (i.e., unable to secure full-time employment) peaked at 64.0% and has since gradually decreased to 55.8% (rank: 37). Also, the country experts warn that "most jobs created have been unstable and of inferior quality."

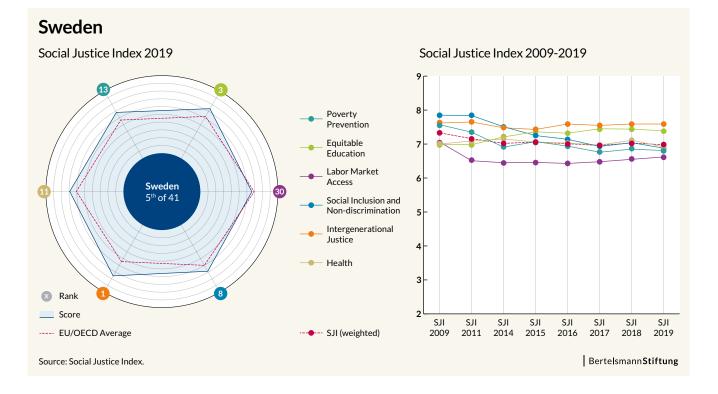
Despite urgent challenges such as global warming and demographic change, almost nothing has been accomplished in Spain over the last 10 years in the area of intergenerational justice, where the country ranks at 33<sup>rd</sup> among the low performers. One reason for the poor result is the high indebtedness of the Spanish state (97.02% of GDP, rank: 33), possibly at the expense of younger generations. If one calculates the indebtedness per child, the picture looks even more frightening: each child in Spain must shoulder almost I\$259,000 of debt (rank: 33). At the same time, public investment in research and development has decreased to such an extent that at 0.47% of GDP (rank: 22), the lowest figure in 10 years has been reached. Spain's result looks somewhat better in the area of environmental

sustainability. At 7.30 metric tons per capita, the country emits relatively small amounts of greenhouse gases (rank: 16). The share of renewable sources of energy in Spain has more than doubled since 2009, but at 16.3% (rank: 21) still accounts for a relatively small proportion of total energy consumption. Despite this performance, which is reasonable in comparison with other countries, there remain many steps to be taken in the field of environmental sustainability, which, as the country experts point out, is proving to be difficult. "Spain's efforts against climate change are still not enough and Spain has to reach a series of intermediate goals that seem unattainable with Spain's current legislation and tools."

#### Sweden<sup>205</sup>

In comparison to SJI 2009, Sweden's performance in terms of social justice has slightly deteriorated in recent years. In our current edition it scores overall 6.98, placing it 5<sup>th</sup>. Across the six social justice dimensions, Sweden scores above average on five (i.e., all except Labor Market Access), three times ranking among the top ten.

Current and prior Swedish governments have had success at ensuring that policies are equitable both for the present and future generations. Sweden remains by far the top-ranked country in terms of intergenerational justice (score: 7.59). An intergenerationally just policy strategy requires tangible interventions to combat climate change. Greenhouse gas (GHG) emissions have steadily declined over



205 Quotations in the following section can be found in the Country Report for Sweden: Pierre, Jochem and Jahn (2019), available at www.sgi-network.org.

the past decade and consistently remained among the lowest in our sample. In 2017 (the most recent reported year), GHG emissions totaled 5.24 metric tons per capita (in CO<sub>2</sub> equivalents), placing Sweden 2<sup>nd</sup>. The use of renewable energy has increased over SJI 2009. An admirable 53.3% of energy consumed by end users (e.g., households and industry) came from renewable sources (rank: 3). Sweden's forward-looking policies also include comparatively high investments in research and development. Government-financed expenditures on R&D have increased to 0.93% of GDP (rank: 2). Private-sector expenditures have decreased in comparison to SJI 2009, to 2.37% of GDP, but remain among the highest in our sample (rank: 5). Such expenditures are sound investments in the future, helping to ensure that the Swedish economy will remain globally competitive in the decades to come. The SGI country experts report that "Sweden now ranks first with regard to patent applications and license fees for intellectual property. This is a valid indicator that R&D is bearing fruit, as securing intellectual ownership of emerging products is a critical stage in the process from the research facility to the market." At the same time, investments made today must not unduly burden future taxpayers with debt. Public debt remains slightly higher (39.01% of GDP) than before the global financial crisis, ranking 14<sup>th</sup>. Also, Sweden faces an escalating policy challenge as a result of its aging population. The country's age dependency is one of the more burdensome (rank: 34). There are 32.3 older dependents (age 65 years or over) for every 100 people of working age. In this context, the SGI country experts warn that a high and persistent youth unemployment rate threatens equity in the long term.

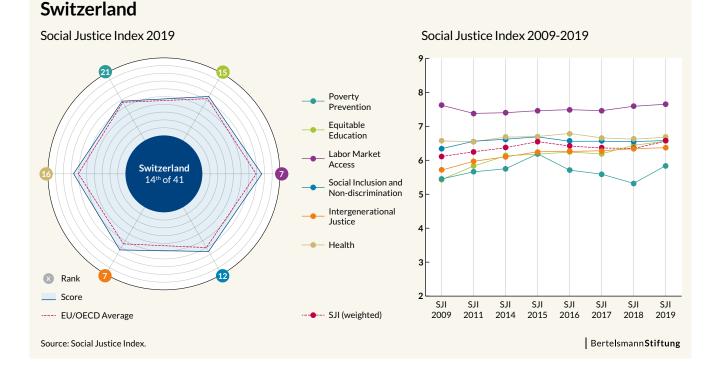
Where we witness great performance loss is on poverty prevention: from 7.57 ten years ago to 6.81 (rank: 13). This dimension features first in our index because freedom from poverty is such a vital component for broad-based social justice. The overall population share at risk of poverty has risen from 7.2% ten years ago to 9.5% (rank: 18). Diving deeper, we observe that this worsening is reflected in two population groups. The share of children and youth (under 18) at risk of poverty has increased over this period: from 7.9% to 12.3% (rank: 19). The rate of seniors at risk of poverty, though it has fluctuated, remains virtually the same as ten years ago: 4.8% (rank: 10). The country experts observe that "Sweden has twice as many pensioners living at or below the poverty line as in Denmark and three times as many as in Norway, two comparable Nordic countries." "Recent developments challenge the country's historical position as a leader in the public provision of welfare through wealth redistribution and as a country with extremely low levels of poverty."

#### Switzerland<sup>206</sup>

Since ten years ago, Switzerland's overall performance has remained fairly stable. With a score of 6.56, it ranks 14<sup>th</sup> among the 41 countries. Switzerland scores above average on all of our six dimensions of social justice.

Over the past ten years, Switzerland has undergone the greatest transformation on our dimension assessing the quality and equity of the education system (score: 6.56, rank: 15). Across most of our quantitative indicators on education, we

<sup>206</sup> Quotations in the following section can be found in the Country Report for Switzerland: Armingeon, Sager and Zohlnhöfer (2019), available at www.sgi-network.org.



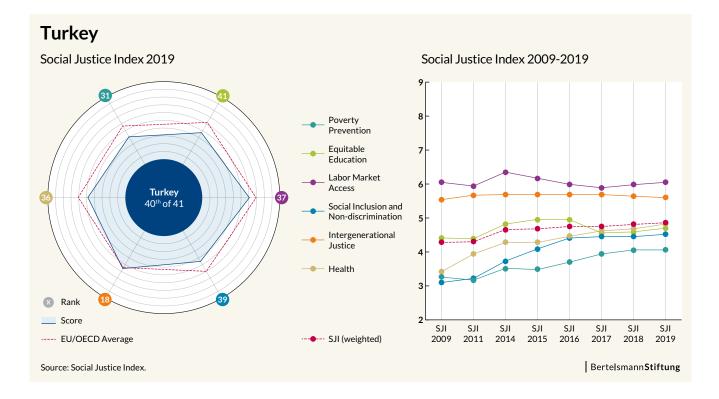
witness improvements compared to ten years ago. The share of the adult population without upper secondary education has steadily declined to 11.6% (rank: 10). The share of 15-year-old students scoring below the baseline level of proficiency on PISA (10.1%) is comparatively moderate (rank: 13), confirming that Swiss students are generally receiving a quality education. We observe a narrowing divide in upper secondary attainment between women and men (rank: 27). Yet, disparities remain a major policy challenge. The Swiss education system places 30<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Amongst students scoring below the baseline level of proficiency on PISA, this disparity is likewise stark (rank: 30). The SGI country experts find that "while women and – with some exceptions – persons from peripheral regions have equal access to higher education, the Swiss education system continues to discriminate at all levels against students from families with low social status."

Poverty prevention features as the first dimension in our index because it is such an essential factor for achieving broad-based social justice. Since SJI 2009, Switzerland's poverty prevention score has fluctuated. In SJI 2019, it scores 5.84, ranking the comparatively wealthy country 21<sup>th</sup>. The current overall population share at risk of poverty, 8.7% (rank: 13), has shifted little over the past ten years. This lack of substantial improvement is paralleled in two population groups. A similar share of children and youth (under 18) risk poverty today as 10 years ago: 11.5% (rank: 17). The share of seniors at risk of poverty spiked to 19.1% during the crisis but has since nearly returned to, albeit high, pre-crisis levels: 14.0% (rank 28). "It should be noted that unemployment and poverty is most pronounced among low-skilled workers, where immigrants are over-represented."

# Turkey<sup>207</sup>

Turkey's overall performance on the SJI continues to place it among the countries most urgently in need of policy reforms. With a score of 4.86, it places 40<sup>th</sup>, surpassing only Mexico. Across five of the six social justice dimensions in our assessment, Turkey scores below average and on four dimensions it places among the bottom ten countries. In comparison to ten years ago, we do observe improvements, particularly on two dimensions: Social Inclusion/Non-discrimination and Health.

Over the past ten years, health care system access and quality have improved. Though still ranked 36<sup>th</sup>, Turkey has made strides, rising from a score of 3.42 to 4.82 in SJI 2019. Across our various quantitative indicators for this dimension, though the health care system remains among the worst, small and large improvements are to be found. We observe the weightiest improvement with regards to births, where infant mortality has been halved in ten years: from 20.2 per 1,000 live births to 10.0 (rank: 40). This even though the number of practicing physicians remains exceptionally low: just 1.8 physicians per 1,000 inhabitants (rank: 40). On average, Turks can expect 66.0 years without a limitation in functioning and without disability (rank: 41), about 3 years more than in SJI 2009. The share of health care expenses being shouldered by households has fallen, from 23.9% in SJI 2009 to 16.5% (rank: 19). The SGI country experts report that "by 2014, Turkey had achieved near-universal health-insurance coverage, increasing financial security and improving equity in access to health care nationwide." In



207 Quotations in the following section can be found in the Country Report for Turkey: Genckaya, Togan, Schulz and Karadag (2019), available at www.sgi-network.org.

addition, "the scope of the vaccination program has been broadened, the scope of newborn screening and support programs have been extended, community-based mental-health services have been created, and cancer screening centers offering free services have been established in many cities."

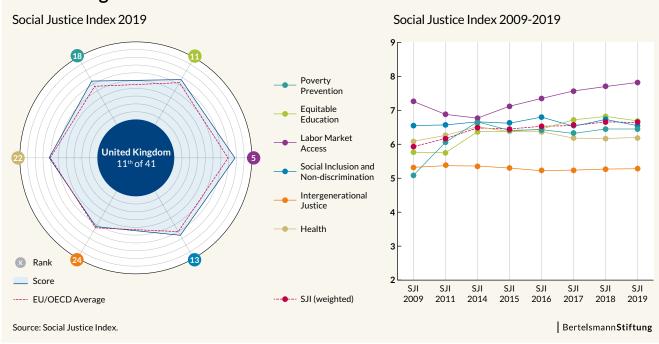
Broad-based social justice within a society requires that opportunities for a quality education are equitably distributed. Unfortunately, the Turkish education system remains the least equitable in our comparative study. The country's score on this dimension - 4.70 - has barely shifted over the past decade. Though the share of the adult population without upper secondary education has fallen from 72.6% in SJI 2009 to 62.6%, Turkey continues to have the least educated population in our sample. Public expenditure on pre-primary education – almost non-existent ten years ago - has increased to 0.25% of GDP, but this remains exceptionally low (rank: 37). Such low funding is detrimental to Turkish society as much evidence has shown that early investments in children's education yield significant, lifelong positive effects. Regarding education system outcomes, we observe that the share of 15-year-old students scoring below the baseline level of proficiency on PISA (31.2%) is alarmingly high (rank: 40), suggesting that many Turkish students are not receiving a quality education. Students from lower socioeconomic households are less disadvantaged today than in the recent past. Turkey places 2<sup>nd</sup> with regard to the impact socioeconomic factors have on the PISA performance of students. Amongst students scoring below the baseline level of proficiency on PISA, the impact of these socioeconomic factors has likewise declined (rank: 2).

#### United Kingdom<sup>208</sup>

The United Kingdom's performance on the SJI has moderately improved since our first edition in 2009. In the current index, it places 11<sup>th</sup> with a score of 6.64. Across the six social justice dimensions that comprise the index, the UK performs best in Labor Market Access (rank: 5). The UK scores above average on five of our six dimensions of social justice that comprise our index, ranking among the top five on the Labor Market Access dimension. It scores below average and ranks lowest on our Intergenerational Justice dimension.

The UK offers a relatively well-functioning labor market. With a score of 7.82, it ranks 5<sup>th</sup> on this dimension. The overall employment rate, 74.7%, has remained relatively stable over the past ten years, placing the country 12<sup>th</sup>. Employment among older workers has been on the rise in recent years: 65.3% of persons 55 to 64 are employed (rank: 17). Disparities in employment between native-born and foreign-born workers are commendably low (rank: 2). These rates of employment are mirrored in the unemployment figures. At 4.1%, the labor market has the lowest incidence of unemployment in ten years (rank: 14). Also, the share of workers unemployed for a year or more, 1.1%, has returned to pre-global financial crisis levels (rank: 14). Youth unemployment peaked in SJI 2014 (20.7%) but has since decreased to 11.3% (rank: 19). Those with less than upper secondary education were unemployed at a higher rate (5.0%), but have likewise witnessed a more than halving since the peak of the crisis (rank: 8). According to the SGI

<sup>208</sup> Quotations in the following section can be found in the Country Report for: Busch, Begg and Bandelow (2019), available at www.sgi-network.org.



**United Kingdom** 

country report, "recent labor market performance has been so robust that the new government has declared full employment an official government objective. (...) However, the increase in employment has come at the cost of weakness in real wages and weak productivity growth. Real wages only recently returned to their pre-crisis levels, partly because of a moderating effect of immigration."

Policymakers are failing to secure outcomes that are intergenerationally just (score: 5.28, rank: 24). Among other requisite conditions, intergenerational justice requires a sustainable public budget. Government debt has climbed from 49.69% ten years ago to 86.86% (rank: 31). Viewed another way, public debt per child has more than doubled: from I\$104,000 per child to I\$222,000 (rank: 28). The country experts caution that current levels of government borrowing are "based on the expectation of some sort of Brexit deal that will safeguard the economic structures on which the United Kingdom's economic success relies." Such a deal appears increasingly remote. While public debt has risen compared to ten years ago, research and development spending – vital to long-term economic competitiveness - has altered little from the public sector. Government-financed expenditures on R&D total 0.44% of GDP (rank: 25). In contrast, private-sector expenditures have risen to 1.24% (rank: 17). In aggregate, this comparatively mediocre level of direct investment undermines the innovation dexterity necessary to maintain high employment in a modern economy. Finally, a truly broad-based intergenerationally just policy strategy requires tangible interventions to combat climate change. Today, 8.7% of energy consumed by end users (e.g., households and industry) comes from renewable sources - shamefully low in comparison to most of the countries in our study (rank: 36). In line with this moderate increase, per capita greenhouse gas emissions have decreased to 7.18 metric tons (rank: 14).

#### United States<sup>209</sup>

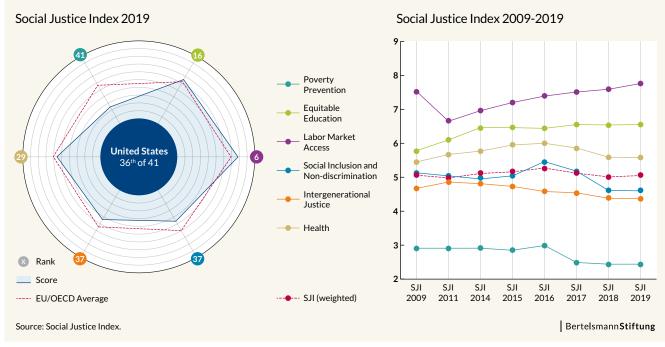
Overall, the United States continues to place among the bottom ten countries in our comparative study on social justice. The country's score of 5.05 has shifted little over the past ten years and ranks 36<sup>th</sup> in SJI 2019. Across our six social justice dimensions, the US twice scores above average (including ranking 6<sup>th</sup> on the Labor Market Access dimension). On three other dimensions, the country has placed itself among the bottom five (i.e., Poverty Prevention, Social Inclusion/Non-discrimination and Intergenerational Justice).

In comparison to a decade ago, the only dimension on which the US is tangibly better off assesses quality and equity within the education system. Here the country's score has increased from 5.78 to 6.55 (rank: 16). Across the six quantitative indicators on education, we witness a mixture of progress and regressions compared to ten years ago. The share of the adult population without upper secondary education has declined to 9.2% (rank: 6). The share of 15-year-old students scoring below the baseline level of proficiency on PISA (13.6%) has increased in the most recent assessment (rank: 25), but generally confirms that most students are receiving a quality education. Yet, disparities remain a major policy challenge. The gap in upper secondary attainment between women and men has remained stubbornly rigid over the past ten years (rank: 23). Also, while the US education system places 6<sup>th</sup> with regard to the impact socioeconomic factors have on the PISA performance of students, amongst those scoring below the baseline level of proficiency, this disparity is more acute (rank: 19). The SGI country experts report that the education system overall "is generously funded" and "its shortcomings are the result of," among others, "the impact of deficiencies in the home environments of many children in low-income/minority neighborhoods, severe inequalities in school quality between wealthy and low-income areas, a lack of accountability for outcomes in the fragmented system, and effective resistance to school reforms by powerful teachers' unions."

Freedom from poverty features as the first dimension in our index because it is such an essential component for agency and positive life outcomes. Since SJI 2009, the US continues to score scandalously poorly on poverty prevention (score: 2.44), ranking last in our current edition. "In recent years, there has been persistent poverty along with exceptionally large income gains for the top 1% and especially the top 0.1% of the income scale." The current overall population share at risk of poverty, 17.8% (rank: 40), has barely shifted over the past ten years. This lack of improvement is paralleled in two population groups. A similar share of children and youth (under 18) risk poverty today as 10 years ago: 21.2% (rank: 37), "with 1.3 million children homeless." The share of seniors at risk of poverty has actually increased from 20.6% to 23.1% (rank: 36).

With a rank of 37<sup>th</sup> and the worst score of the last 10 years (4.37), the US also fails miserably at counting the interests of both older and younger generations in public policies. This is in particular due to the fact that efforts to achieve sound environmental policies, and hence to leave an intact environment for future generations, have declined sharply in the last two years. The role of the change of

<sup>209</sup> Quotations in the following section can be found in the Country Report for the United States: Quirk, Lammert and Thunert (2019), available at www.sgi-network.org.



# **United States**

government in this context is strongly emphasized by our country experts: "The Trump administration has been a rapidly escalating disaster for environmental policy. (...) Although some of the more liberal states will attempt to continue reducing carbon emissions, no national action can be expected during Trump's presidency. Indeed, Trump has promised to rejuvenate the coal-mining industry, an economic absurdity." Even though greenhouse gas emissions have fallen significantly in a ten-year comparison (-4.61 metric tons per capita), the US still emits the second highest amount of greenhouse gases at 19.86 metric tons per capita. Moreover, since SJI 2015 no progress has been made in the field of renewable energy, which accounts for a mere 8.7% of total energy consumption (rank: 35). The continuing high debt level of 105.77% of GDP (rank: 37) also places a large financial burden on all generations. The extent to which this limits the scope for action is illustrated by the level of debt calculated: each American child bears I\$352,000 in debt. On the positive side, however, the already high level of private investment on research and development has risen further to 2.15% (rank: 8), which means that at least the private sector is working on competitiveness.

# References

Ágh, Attila, Jürgen Dieringer and Frank Bönker (2019): Country Report Hungary, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Anckar, Carsten, Kati Kuitto, Christoph Oberst and Detlef Jahn (2019): Country Report Finland, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Armingeon, Klaus, Fritz Sager and Reimut Zohlnhöfer (2019): Country Report Switzerland, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Bubeck, Moritz and Laura Seelkopf (2016): Aufbereitung der SGI-Indikatoren zur Grenzwertfestlegung und Transformation. Unpublished manuscript.

Busch, Andreas, Iain Begg and Nils C. Bandelow (2019): Country Report United Kingdom, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Castanheira, Micael, Benoît Rihoux and Nils C. Bandelow (2019): Country Report Belgium, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Christophorou, Christophoros, Heinz-Jurgen Axt and Roy Karadag (2019): Country Report Cyprus, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Cotta, Maurizio, Roman Maruhn and César Colino (2019): Country Report Italy, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Croissant, Aurel and Raymond Miller (2019): Country Report New Zealand, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Eythórsson, Gretar Thór, Thorvaldur Gylfason and Detlef Jahn (2019): Country Report Iceland, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org. Ganev, Georgy, Maria Popova and Frank Bönker (2019): Country Report Bulgaria, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Genckaya, Ömer Faruk, Subidey Togan, Ludwig Schulz and Roy Karadag (2019): Country Report Turkey, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org

Guasti, Petra, Zdenka Mansfeldová, Martin Myant and Frank Bönker (2019): Country Report Czechia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Haček, Miro, Susanne Pickel and Frank Bönker (2019): Country Report Slovenia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Hoppe, Robert, André Krouwel and Nils C. Bandelow (2019): Country Report Netherlands, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Jalali, Carlos, Thomas C. Bruneau and César Colino (2019): Country Report Portugal, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Kalinowski, Thomas, Sang-young Rhyu and Aurel Croissant (2019): Country Report Korea, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Kessler, Anke, Andrew Sharpe and Martin Thunert (2019): Country Report Canada, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Klein, Fabian, Edgar von Knebel, Claudia Zilla and Martin Thunert (2019): Country Report Chile, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Kneuer, Marianne, Darina Malová and Frank Bönker (2019): Country Report Slovakia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Kölling, Mario, Ignacio Molina and César Colino (2019): Country Report Spain, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Laursen, Finn, Torben Andersen and Detlef Jahn (2019): Country Report Denmark, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Levi-Faur, David, Sabine Hofmann and Roy Karadag (2019): Country Report Israel, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org Mangule, Indra, Daunis Auers and Detlef Jahn (2019): Country Report Latvia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Matthes, Claudia, Radoslaw Markowski and Frank Bönker (2019): Country Report Poland, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Mény, Yves, Henrik Uterwedde and Reimut Zöhlnhofer (2019): Country Report France, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Merkel, Wolfgang and Heiko Giebler (2009): Measuring Social Justice and Sustainable Governance in the OECD. In Sustainable Governance Indicators 2009: Policy Performance and Executive Capacity in the OECD, edited by the Bertelsmann Stiftung, 187–215. Gütersloh: Bertelsmann Stiftung.

Merkel, Wolfgang (2001): Soziale Gerechtigkeit und die drei Welten des Wohlfahrtskapitalismus. In Berliner Journal fur Soziologie (2): 135–157.

Merkel, Wolfgang (2007): Soziale Gerechtigkeit im OECD-Vergleich. In Soziale Gerechtigkeit – eine Bestandsaufnahme, edited by Stefan Empter & Robert B. Vehrkamp, 233–257. Gütersloh: Bertelsmann Stiftung.

Muno, Wolfgang, Jörg Faust and Martin Thunert (2019): Country Report Mexico, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Murphy, Antoin E., Paul L. Mitchell and Nils C. Bandelow (2019): Country Report Ireland, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Nakrošis, Vitalis, Ramunas Vilpišauskas and Detlef Jahn (2019): Country Report Lithuania, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

OECD (2015): In It Together. Why Less Inequality Benefits All. OECD Publishing, Paris.

OECD (2017): Health at a Glance 2017. OECD Indicators. OECD Publishing, Paris.

OECD (2017): Pensions at a Glance 2017. OECD and G20 Indicators. OECD Publishing, Paris.

OECD (2019): OECD Employment Outlook 2019. The Future of Work. OECD Publishing, Paris.

Pascha, Werner, Patrick Köllner and Aurel Croissant (2019): Country Report Japan, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org. Pelinka, Anton, Rudolf Winter-Ebmer and Reimut Zöhlnhofer (2019): Country Report Austria, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Petak, Zdravko, William Bartlett and Frank Bönker (2019): Country Report Croatia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Pierre, Jon, Sven Jochem and Detlef Jahn (2019): Country Report Sweden, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Pirotta, Godfrey, Isabelle Calleja and César Colino (2019): Country Report Malta, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Quirk, Paul J., Christian Lammert and Martin Thunert (2019): Country Report United States, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Rawls, John (1971): A Theory of Justice. Cambridge: Harvard University Press. Roemer, John E. (1998): Equality of Opportunity. Cambridge, Mass.: Harvard University Press.

Rüb, Friedbert W., Friedrich Heinemann and Reimut Zöhlnhofer (2019): Country Report Germany, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Schraad-Tischler, Daniel and Laura Seelkopf (2015): Concept and Methodology – Sustainable Governance Indicators 2015, Bertelsmann Stiftung, Gütersloh. Available at: www.sgi-network.org.

Sen, Amartya (1993): Capability and Well-Being. In The Quality of Life, edited by Amartya Sen and Martha Nussbaum, 30–53. Cambridge, Mass.: Harvard University Press.

Sen, Amartya (2009): The Idea of Justice. Cambridge, Mass.: Harvard University Press.

Sotiropoulos, Dimitri A., Asteris Huliaras and Roy Karadag (2019): Country Report Greece, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Sverdrup, Ulf, Stein Ringen and Detlef Jahn (2019): Country Report Norway, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org. Toots, Anu, Allan Sikk and Detlef Jahn (2019): Country Report Estonia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

UNEP (2018): The Emissions Gap Report 2018. United Nations Environment Programme, Nairobi.

Vehrkamp, Robert B. (2007): Soziale Gerechtigkeit in Deutschland – Einleitung und Überblick. In Soziale Gerechtigkeit – eine Bestandsaufnahme, edited by Stefan Empter and Robert B. Vehrkamp, 9–21. Gütersloh: Bertelsmann Stiftung.

Wagner, Andrea, Lavinia Stan and Frank Bönker (2019): Country Report Romania, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

WHO (2008): Closing the Gap in a Generation. Health Equity through Action on the Social Determinants of Health. Commission on Social Determinants of Health – final report. Available at: www.who.int/social\_determinants/ thecommission/finalreport/en/index.html.

Wilkins, Roger, Heribert Dieter and Aurel Croissant (2019): Country Report Australia, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

Zenthöfer, Jochen, Wolfgang Lorig and Nils C. Bandelow (2019): Country Report Luxembourg, Sustainable Governance Indicators 2019. Available at: www.sgi-network.org.

REFERENCES

# Figures

FIGURE 1	EU Social Justice Index (weighted)	7
FIGURE 2	SJI 2019 Rankings	8
FIGURE 3	Social Justice 2019 and GDP per Capita 2018	11
FIGURE 4	Social Justice Index- Dimensions and Indicators	12
FIGURE 5	The Dimensions of Social Justice, SJI 2009–SJI 2019	13
FIGURE 6	Poverty Rate and Employment Rate	14
FIGURE 7	Poverty Risk SJI 2009-SJI 2019	20
FIGURE 8	Poverty Prevention	21
FIGURE 9	Poverty Risk, Total Population	24
FIGURE 10	Poverty Risk, by age group	29
FIGURE 11	Poverty Risk, Children (<18)	31
FIGURE 12	Poverty Risk, Seniors (65+)	35
FIGURE 13	Equitable Education SJI 2009–SJI 2019	41
FIGURE 14	Equitable Education	42
FIGURE 15	PISA Performance, Socioeconomic Impact	44
FIGURE 16	Pre-primary Education Expenditure	48
FIGURE 17	Less Than Upper Secondary Education (25-64)	50
FIGURE 18	PISA Low Performers, All Subjects	53
FIGURE 19	Labor Market Access SJI 2009–SJI 2019	56
FIGURE 20	Labor Market Access	58
FIGURE 21	Employment Rate	61
FIGURE 22	Older Employment Rate	64
FIGURE 23	Employment Rate, Women/Men	66
FIGURE 24	Unemployment Rate	68
FIGURE 25	Long-term Unemployment Rate	69
FIGURE 26	Youth Unemployment Rate	70
FIGURE 27	Involuntary Part-time Employment Rate	72
FIGURE 28	Low Pay Incidence	74
FIGURE 29	Social Inclusion and Non-discrimination	76
FIGURE 30	Social Inclusion and Non-discrimination SJI 2009-SJI 2019	77
FIGURE 31	Gini Coefficient	80
FIGURE 32	Non-discrimination Policy (SGI)	82
FIGURE 33	Gender Equality in Parliaments	85
FIGURE 34	Integration Policy (SGI)	87

FIGURE 35	NEET Rate	91
FIGURE 36	Intergenerational Justice	94
FIGURE 37	Greenhouse Gas Emissions, Per Capita	96
FIGURE 38	Renewable Energy Consumption	98
FIGURE 39	Ecological Footprint, Per Capita	100
FIGURE 40	Age Dependency	102
FIGURE 41	Pension Policy (SGI)	105
FIGURE 42	Family Policy (SGI)	108
FIGURE 43	Public Debt	112
FIGURE 44	Public Debt, Per Child	114
FIGURE 45	Public R&D Spending	116
FIGURE 46	Health	118
FIGURE 47	Infant Mortality Rate	120
FIGURE 48	Healthy Life Expectancy	122
FIGURE 49	Out-of-pocket Expenses	125
FIGURE 50	Perceived Health Status, by Income Quintile	126
FIGURE 51	Social Justice Index – Dimensions and Indicators	132
FIGURE 52	EU Social Justice Index (weighted)	268
FIGURE 53	EU Social Justice Index (unweighted)	269

Appendix

#### TABLE 1A Overview of Results

#### WEIGHTED INDEX COUNTRY 2014 2018 RANK 2009 2011 2015 2016 2017 2019 26 5.727 5.721 5.822 5.851 5.909 Australia 5.657 5.736 5.743 6.341 6.269 17 Austria 6.234 6.046 6.316 6.414 6.371 6.333 18 Belgium 6.298 6.184 6.249 6.155 6.302 6.241 6.362 6.310 4.403 38 Bulgaria 4.475 4.513 4.784 4.734 4.912 6.326 12 Canada 6.418 6.288 6.228 6.490 6.550 6.571 6.417 37 Chile 4.719 4.859 5.005 4.914 4.925 4.623 4.783 5.096 5.149 5.102 5.205 5.292 32 Croatia 5.164 20 Cyprus 5.789 5.769 5.848 5.963 6.135 6.097 8 Czechia 6.753 6.608 6.765 6.671 6.699 6.585 6.781 6.803 3 7.471 7.143 7.350 7.458 7.378 7.611 7.610 Denmark 7.666 25 Estonia 6.567 6.302 6.301 6.104 6.105 5.982 4 Finland 7.245 7.327 7.328 7.381 7.351 7.352 7.310 7.240 15 France 6.652 6.338 6.337 6.341 6.350 6.324 6.475 6.525 6.439 6.552 10 Germany 6.184 6.220 6.540 6.515 6.647 6.644 5.086 4.789 4.784 4.952 5.097 35 5.117 4.573 4.738 Greece 6.211 6.089 21 Hungary 6.122 5.893 5.666 5.649 5.833 6.014 1 Iceland 7.797 7.631 7.790 7.806 7.750 8.005 8.030 7.897 Ireland 6.437 6.144 6.557 13 6.060 6.032 6.218 6.269 6.489 5.051 5.114 30 Israel 5.103 5.415 5.407 5.478 29 5.437 5.397 Italy 5.679 5.617 5.423 5.425 5.517 5.484 27 Japan 5.476 5.390 5.450 5.498 5.578 5.535 5.546 5.616 5.054 5.016 5.205 5.095 34 Korea 5.209 5.234 5.184 5.182 Latvia 5.600 5.526 5.202 5.234 5.141 33 5.212 5.746 5.981 5.571 5.365 5.302 31 Lithuania 5,355 6.520 6.549 6.540 6.282 19 Luxembourg 6.548 6.638 6.339 6.226 23 Malta 5.656 5.800 5.767 6.006 5.951 6.067 4.259 4.393 4.692 4.723 41 Mexico 4.272 4.571 4.631 4.760 6 Netherlands 7.213 7.202 7.128 7.059 7.027 6.936 6.955 6.967 9 New Zealand 6.635 6.524 6.694 6.540 6.542 6.671 6.740 6.749 2 Norway 7.519 7.536 7.763 7.714 7.647 7.627 7.616 7.677 16 Poland 5.788 5.820 5.976 6.061 6.127 6.086 6.330 6.419 5.279 6.033 24 Portugal 5.518 5.491 5.115 5.276 5.517 5.785 39 Romania 4.861 4.542 4.413 4.554 4.742 4.862 22 Slovakia 5.636 5.543 5.873 5.995 5.907 5.588 5.642 6.069 7 Slovenia 6.284 6.300 6.435 6.590 6.816 6.885 28 5.202 5.457 5.277 5.154 5.187 5.262 Spain 5.288 5.532 5 7.329 7.160 7.020 7.058 7.010 6.958 7.026 6.983 Sweden 14 Switzerland 6.109 6.247 6.372 6.546 6.421 6.357 6.353 6.557 4.276 4.299 4.662 4.677 4.754 4.748 4.808 4.861 40 Turkey 11 United Kingdom 5.927 6.165 6.479 6.452 6.528 6.549 6.657 6.641 5.014 5.049 36 **United States** 5.057 5.110 5.157 5.267 5.119 4.980

Source: Social Justice Index.

#### TABLE 1B Overview of Results

		UNWEIGHTED INDEX							
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
19	Australia	6.006	6.094	6.060	6.023	6.048	6.093	6.113	6.171
17	Austria	6.252	6.033	6.247	6.309	6.252	6.333	6.325	6.293
20	Belgium	6.181	6.085	6.080	6.013	6.098	6.082	6.187	6.166
40	Bulgaria			4.531	4.597	4.618	4.859	4.821	4.959
10	Canada	6.480	6.376	6.380	6.446	6.337	6.532	6.581	6.607
36	Chile		4.807	4.870	4.936	4.986	5.121	5.086	5.107
33	Croatia			5.125	5.218	5.130	5.195	5.257	5.343
25	Cyprus			5.513	5.499	5.602	5.719	5.823	5.852
13	Czechia	6.425	6.338	6.427	6.413	6.433	6.323	6.450	6.471
3	Denmark	7.296	7.081	7.230	7.305	7.246	7.413	7.444	7.495
18	Estonia			6.459	6.297	6.312	6.237	6.287	6.221
5	Finland	7.149	7.158	7.144	7.166	7.101	7.107	7.050	6.981
14	France	6.418	6.161	6.176	6.163	6.162	6.150	6.307	6.369
11	Germany	6.042	6.075	6.405	6.351	6.406	6.444	6.522	6.534
37	Greece	5.015	4.988	4.622	4.758	4.789	4.802	4.967	5.055
28	Hungary	5.757	5.571	5.382	5.385	5.510	5.630	5.741	5.684
2	Iceland	7.539	7.407	7.533	7.497	7.443	7.659	7.713	7.602
15	Ireland	6.277	5.994	5.957	5.910	6.066	6.151	6.299	6.365
24	Israel			5.572	5.604	5.596	5.815	5.794	5.857
31	Italy	5.685	5.613	5.460	5.401	5.468	5.471	5.567	5.525
29	Japan	5.555	5.478	5.524	5.582	5.621	5.595	5.591	5.658
32	Korea	5.275	5.264	5.487	5.501	5.527	5.499	5.292	5.355
34	Latvia			5.463	5.419	5.237	5.267	5.226	5.295
30	Lithuania			5.765	5.884	5.663	5.519	5.510	5.587
16	Luxembourg	6.399	6.517	6.465	6.469	6.553	6.340	6.414	6.363
23	Malta			5.459	5.567	5.560	5.757	5.774	5.859
39	Mexico	4.490	4.492	4.629	4.699	4.789	4.883	4.909	4.959
7	Netherlands	7.053	6.985	6.914	6.844	6.781	6.743	6.739	6.745
6	New Zealand	6.734	6.617	6.745	6.667	6.668	6.777	6.845	6.857
1	Norway	7.435	7.435	7.624	7.590	7.530	7.526	7.543	7.618
21	Poland	5.562	5.638	5.871	5.909	5.953	5.885	5.999	6.056
22	Portugal	5.567	5.515	5.322	5.220	5.389	5.584	5.790	5.980
38	Romania			4.941	4.744	4.664	4.778	4.941	5.039
26	Slovakia	5.610	5.386	5.344	5.405	5.437	5.603	5.726	5.790
8	Slovenia			6.203	6.224	6.344	6.457	6.638	6.637
27	Spain	5.686	5.446	5.428	5.383	5.447	5.520	5.527	5.768
4	Sweden	7.349	7.236	7.119	7.103	7.076	7.023	7.096	7.034
9	Switzerland	6.187	6.325	6.446	6.575	6.509	6.456	6.477	6.613
41	Turkey	4.297	4.388	4.733	4.779	4.865	4.859	4.899	4.958
12	United Kingdom	6.011	6.149	6.389	6.367	6.437	6.427	6.523	6.499
35	United States	5.242	5.205	5.310	5.370	5.477	5.356	5.190	5.217

Source: Social Justice Index.

		POVERTY PREVENTION							
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
30	Australia	3.736	3.736	3.736	3.889	3.889	4.114	4.114	4.114
16	Austria	6.469	6.338	6.584	6.836	6.869	7.087	6.801	6.605
14	Belgium	6.934	6.858	7.077	6.874	7.260	6.983	7.085	6.727
33	Bulgaria			3.436	3.518	3.419	3.497	3.181	3.550
25	Canada	5.458	5.305	5.319	5.572	4.920	5.495	5.595	5.595
36	Chile		3.280	3.456	3.456	3.535	3.535	3.274	3.274
29	Croatia			4.790	4.775	4.625	4.459	4.342	4.136
17	Cyprus			6.944	7.040	6.927	6.850	7.129	6.542
4	Czechia	8.338	8.108	8.576	8.150	8.032	8.078	8.315	8.218
2	Denmark	8.230	7.568	8.076	8.401	8.179	8.340	8.262	8.365
28	Estonia			6.582	5.696	5.487	4.843	4.514	4.138
3	Finland	7.635	8.280	8.245	8.383	8.567	8.672	8.597	8.331
7	France	8.194	7.528	7.685	7.786	7.866	7.764	7.865	7.788
15	Germany	6.929	6.876	6.954	6.560	6.656	6.674	6.834	6.643
22	Greece	5.080	5.493	4.575	4.783	5.033	5.038	5.292	5.746
9	Hungary	7.898	7.955	7.000	6.763	6.994	7.487	7.908	7.283
1	Iceland	8.389	8.316	8.458	8.744	8.576	8.808	8.808	8.808
10	Ireland	7.064	7.446	7.138	6.922	7.151	6.797	7.273	7.273
40	Israel			1.911	2.064	1.992	2.706	2.563	2.563
26	Italy	5.321	5.527	5.539	5.683	5.299	5.134	5.341	5.255
32	Japan	3.725	3.725	3.699	3.699	3.930	3.930	3.930	3.930
38	Korea	2.933	2.933	2.933	2.933	2.933	3.004	3.104	3.104
34	Latvia			5.710	5.142	4.133	3.870	3.482	3.443
37	Lithuania			5.286	5.995	4.390	3.827	3.377	3.213
24	Luxembourg	7.794	7.279	7.136	7.295	7.332	6.417	6.246	5.683
19	Malta			6.434	6.551	6.246	6.681	6.238	6.371
39	Mexico	2.038	2.038	2.038	2.654	2.654	2.657	2.657	2.657
6	Netherlands	8.209	8.448	8.415	8.276	8.270	7.924	7.893	7.794
23	New Zealand	6.047	6.047	6.273	5.697	5.697	5.697	5.697	5.697
5	Norway	7.821	8.185	8.601	8.386	8.362	8.099	8.045	8.083
12	Poland	6.484	6.252	6.223	6.357	6.384	6.222	6.961	7.109
20	Portugal	5.254	5.590	5.661	5.016	5.050	5.251	5.676	6.087
35	Romania			4.005	3.236	2.826	2.996	3.236	3.370
11	Slovakia	7.797	7.273	7.346	7.199	7.162	7.194	7.252	7.252
8	Slovenia			6.533	6.562	6.765	6.878	7.170	7.327
27	Spain	4.263	4.527	5.189	4.769	4.685	4.830	4.528	4.844
13	Sweden	7.571	7.348	6.913	7.069	6.944	6.756	6.846	6.808
21	Switzerland	5.455	5.659	5.754	6.188	5.710	5.586	5.319	5.842
31	Turkey	3.262	3.171	3.524	3.483	3.705	3.942	4.057	4.057
18	United Kingdom	5.093	6.065	6.662	6.409	6.434	6.319	6.453	6.453
41	United States	2.906	2.906	2.906	2.846	2.986	2.493	2.436	2.436

#### TABLE 1C Overview of Results

Source: Social Justice Index.

#### TABLE 1D Overview of Results

		EQUITABLE EDUCATION							
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
22	Australia	5.492	5.862	6.051	5.946	5.990	6.002	6.155	6.271
36	Austria	5.040	4.666	5.151	5.064	5.174	5.341	5.472	5.426
26	Belgium	6.075	5.929	6.105	5.992	6.047	5.972	5.990	6.013
28	Bulgaria			5.339	5.259	5.432	5.939	5.859	5.817
4	Canada	7.028	7.037	7.133	7.141	7.134	7.402	7.318	7.312
27	Chile		5.104	5.107	5.374	5.473	6.179	6.004	5.970
17	Croatia			6.402	6.398	6.359	6.201	6.301	6.501
19	Cyprus			6.308	6.319	6.291	6.318	6.427	6.332
40	Czechia	5.520	5.596	5.625	5.419	5.545	4.770	4.838	4.916
1	Denmark	6.882	6.808	6.951	6.883	6.883	7.616	7.565	7.524
10	Estonia			7.028	6.891	6.936	6.724	6.718	6.726
6	Finland	7.180	7.201	7.045	7.438	7.291	7.128	7.054	7.060
35	France	5.207	5.293	5.155	5.161	5.280	5.314	5.462	5.502
14	Germany	5.670	5.599	6.052	6.115	6.299	6.319	6.404	6.596
31	Greece	5.153	5.213	5.321	5.634	5.653	5.480	5.537	5.577
39	Hungary	5.472	5.013	5.429	5.090	5.170	4.789	4.885	4.969
5	Iceland	7.449	7.703	7.593	7.246	7.318	7.598	7.530	7.284
29	Ireland	5.551	5.271	5.466	5.477	5.509	5.807	5.763	5.776
8	Israel			6.271	6.233	6.401	6.632	6.766	6.942
25	Italy	6.269	6.126	6.027	6.044	6.183	6.062	6.100	6.082
24	Japan	6.510	6.306	6.366	6.366	6.366	5.995	5.995	6.138
21	Korea	6.117	5.927	6.175	6.200	6.247	5.764	5.825	6.307
12	Latvia			6.314	6.650	6.312	6.813	6.704	6.682
18	Lithuania			6.850	6.711	6.652	6.338	6.331	6.457
30	Luxembourg	4.750	5.126	5.900	5.597	5.864	5.426	5.592	5.729
34	Malta			5.125	5.258	5.272	5.378	5.489	5.532
32	Mexico	5.091	5.218	5.436	5.442	5.484	5.359	5.538	5.567
20	Netherlands	6.406	6.244	6.395	6.428	6.436	6.251	6.297	6.313
9	New Zealand	5.973	5.943	6.258	6.235	6.147	6.734	6.886	6.759
2	Norway	6.934	6.933	7.135	7.297	7.344	7.502	7.471	7.509
13	Poland	6.029	6.443	6.597	6.755	6.763	6.779	6.826	6.629
33	Portugal	4.961	4.972	4.841	4.804	4.904	5.458	5.541	5.561
38	Romania			5.113	4.832	4.870	5.164	5.223	5.228
37	Slovakia	4.456	4.849	4.315	4.487	4.455	5.217	5.239	5.370
7	Slovenia			6.661	6.526	6.484	6.973	6.962	6.999
23	Spain	6.035	6.002	6.038	5.872	5.833	6.029	6.033	6.153
3	Sweden	6.991	6.983	7.205	7.356	7.321	7.452	7.442	7.385
15	Switzerland	5.433	5.826	6.134	6.178	6.243	6.193	6.440	6.561
41	Turkey	4.407	4.387	4.816	4.959	4.945	4.559	4.590	4.700
11	United Kingdom	5.759	5.751	6.368	6.381	6.447	6.724	6.819	6.694
16	United States	5.777	6.103	6.460	6.459	6.443	6.553	6.535	6.554

Source: Social Justice Index.

		LABOR MARKET ACCESS							
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
8	Australia	7.570	7.468	7.381	7.350	7.369	7.431	7.451	7.569
25	Austria	6.848	6.925	6.886	6.818	6.737	6.629	6.689	6.929
29	Belgium	5.953	5.685	5.752	5.732	5.860	5.983	6.333	6.630
31	Bulgaria			4.636	4.873	5.147	5.756	6.197	6.448
10	Canada	7.361	6.980	7.209	7.210	7.284	7.318	7.502	7.563
35	Chile		5.727	5.953	5.927	6.130	6.079	6.069	6.086
34	Croatia			4.230	4.387	4.633	5.198	5.520	6.095
32	Cyprus			4.617	4.292	4.725	5.295	5.729	6.438
4	Czechia	6.779	6.240	6.313	6.515	6.778	6.982	7.642	7.855
12	Denmark	7.587	7.004	7.015	7.069	7.060	7.335	7.351	7.439
11	Estonia			6.718	6.953	7.225	7.211	7.576	7.490
26	Finland	7.106	6.564	6.883	6.617	6.477	6.409	6.558	6.793
38	France	6.417	6.067	5.785	5.698	5.509	5.496	5.715	5.959
15	Germany	6.058	6.398	7.014	7.047	7.098	7.186	7.264	7.354
41	Greece	5.769	4.739	3.528	3.629	3.435	3.474	3.603	3.574
17	Hungary	5.409	4.580	4.936	5.568	6.115	6.599	6.958	7.249
1	Iceland	8.509	7.535	8.189	8.340	8.376	8.880	8.872	8.459
21	Ireland	7.033	5.316	5.113	5.539	5.969	6.378	6.786	7.065
9	Israel			6.983	7.046	7.179	7.216	7.408	7.567
39	Italy	5.774	5.313	4.505	4.414	4.664	4.815	4.985	5.098
2	Japan	7.466	7.273	7.588	7.728	7.828	7.920	8.060	8.213
19	Korea	6.902	6.779	7.092	7.019	7.062	7.077	7.163	7.176
27	Latvia			5.490	5.814	6.022	6.189	6.389	6.779
20	Lithuania			5.453	5.805	6.303	6.543	6.870	7.148
23	Luxembourg	6.468	6.698	6.435	6.476	6.537	6.522	6.819	6.987
18	Malta			5.814	6.237	6.546	6.780	6.902	7.238
24	Mexico	6.615	6.342	6.645	6.763	6.790	6.948	6.925	6.962
16	Netherlands	6.982	6.972	6.576	6.550	6.610	6.802	7.025	7.304
3	New Zealand	7.879	7.499	7.667	7.764	7.868	7.920	8.052	8.199
13	Norway	8.004	7.453	7.545	7.526	7.223	7.411	7.338	7.387
22	Poland	5.518	5.423	5.495	5.683	6.023	6.323	6.551	7.003
28	Portugal	6.309	5.666	4.694	4.988	5.423	5.708	6.216	6.714
33	Romania			5.843	5.652	5.623	5.720	6.082	6.421
36	Slovakia	5.354	4.648	4.358	4.566	5.026	5.507	5.851	6.076
14	Slovenia			5.895	6.007	6.271	6.434	7.033	7.375
40	Spain	5.889	4.292	3.784	3.830	3.983	4.075	4.366	4.869
30	Sweden	7.059	6.510	6.451	6.461	6.430	6.478	6.550	6.620
7	Switzerland	7.619	7.380	7.397	7.457	7.491	7.464	7.589	7.647
37	Turkey	6.049	5.940	6.352	6.170	5.990	5.887	5.981	6.047
5	United Kingdom	7.257	6.876	6.766	7.117	7.346	7.570	7.702	7.817
6	United States	7.526	6.654	6.963	7.196	7.394	7.511	7.593	7.764

#### TABLE 1E Overview of Results

Source: Social Justice Index.

#### TABLE 1F Overview of Results

	SOCIAL INCLUSION AND NON-DISCRIMINATION									
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019	
16	Australia	6.903	6.976	6.390	6.221	6.322	6.449	6.442	6.431	
20	Austria	6.591	6.146	6.319	6.541	6.335	6.245	6.190	6.267	
15	Belgium	7.154	7.092	6.616	6.664	6.500	6.576	6.537	6.477	
41	Bulgaria			4.226	4.043	4.143	4.083	3.959	4.125	
6	Canada	7.070	6.981	6.852	7.005	7.018	7.050	7.018	7.171	
34	Chile		4.017	4.111	4.152	4.309	4.452	4.698	4.873	
31	Croatia			4.882	5.034	4.743	4.848	5.081	5.000	
23	Cyprus			5.487	5.618	5.729	5.957	5.841	6.042	
22	Czechia	6.265	6.386	6.010	6.147	6.070	6.174	6.186	6.167	
2	Denmark	7.878	7.833	7.802	7.816	7.588	7.615	7.718	7.749	
17	Estonia			5.746	5.768	5.719	6.161	6.252	6.400	
10	Finland	7.870	7.548	7.519	7.207	6.938	7.126	6.979	6.740	
21	France	5.845	5.534	5.897	5.903	5.776	5.768	6.142	6.168	
18	Germany	5.913	5.933	6.374	6.412	6.305	6.230	6.315	6.336	
29	Greece	5.116	5.018	4.281	4.603	4.766	4.865	5.130	5.217	
33	Hungary	5.632	5.494	5.029	4.833	4.726	4.894	4.850	4.878	
3	Iceland	7.676	7.745	7.733	7.632	7.578	7.607	7.712	7.502	
14	Ireland	6.334	6.324	6.368	6.004	6.125	6.498	6.507	6.548	
32	Israel			5.366	5.325	5.171	5.259	4.978	4.989	
27	Italy	5.894	5.535	5.442	5.423	5.710	5.673	5.822	5.621	
38	Japan	5.136	4.994	4.835	4.871	4.722	4.722	4.574	4.595	
40	Korea	5.159	4.994	5.355	5.370	5.370	5.374	4.276	4.276	
30	Latvia			5.245	5.158	5.166	5.066	5.059	5.168	
25	Lithuania			5.741	5.807	5.680	5.646	5.633	5.769	
4	Luxembourg	7.448	7.789	7.472	7.520	7.738	7.513	7.600	7.403	
24	Malta			5.587	5.549	5.580	5.785	5.832	5.793	
36	Mexico	4.218	4.024	4.320	4.201	4.509	4.524	4.600	4.767	
5	Netherlands	8.027	8.013	8.157	7.993	7.802	7.848	7.561	7.307	
7	New Zealand	7.207	7.069	7.194	7.101	7.124	7.193	7.134	6.985	
1	Norway	8.367	8.475	8.438	8.311	8.285	8.215	8.197	8.386	
28	Poland	5.457	5.492	6.298	6.028	5.937	5.934	5.609	5.558	
11	Portugal	6.450	6.128	6.084	5.888	6.200	6.314	6.380	6.681	
35	Romania			4.298	4.277	4.133	4.277	4.628	4.845	
26	Slovakia	5.868	5.366	5.901	5.860	5.680	5.440	5.619	5.704	
19	Slovenia			6.174	6.106	6.369	6.534	6.744	6.267	
9	Spain	6.736	6.339	6.102	6.074	6.343	6.442	6.429	6.775	
8	Sweden	7.846	7.837	7.513	7.246	7.145	6.926	7.035	6.883	
12	Switzerland	6.340	6.562	6.617	6.686	6.561	6.559	6.550	6.580	
39	Turkey	3.096	3.216	3.732	4.093	4.407	4.449	4.445	4.517	
13	United Kingdom	6.547	6.569	6.658	6.621	6.803	6.527	6.728	6.553	
37	United States	5.125	5.039	4.948	5.041	5.458	5.183	4.611	4.595	

Source: Social Justice Index.

		INTERGENERATIONAL JUSTICE							
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
21	Australia	5.908	5.994	5.835	5.616	5.552	5.505	5.480	5.540
17	Austria	5.722	5.413	5.483	5.558	5.536	5.631	5.616	5.615
32	Belgium	4.841	4.716	4.722	4.715	4.843	4.828	4.890	4.884
19	Bulgaria			5.748	5.575	5.613	5.619	5.641	5.592
25	Canada	5.754	5.654	5.261	5.210	5.100	5.315	5.303	5.208
11	Chile		6.543	6.093	6.078	6.084	6.054	5.947	5.884
27	Croatia			5.232	5.218	5.165	5.121	5.133	5.138
39	Cyprus			4.187	4.280	4.308	4.301	4.332	4.207
14	Czechia	5.733	5.640	5.767	5.884	5.823	5.847	5.820	5.779
2	Denmark	6.341	6.360	6.611	6.720	6.813	6.751	6.821	6.918
5	Estonia			6.941	6.761	6.709	6.641	6.673	6.494
4	Finland	6.956	7.013	6.884	6.851	6.814	6.771	6.690	6.560
20	France	5.785	5.558	5.509	5.471	5.554	5.518	5.452	5.568
22	Germany	5.451	5.350	5.389	5.266	5.385	5.515	5.569	5.462
41	Greece	3.110	3.100	3.490	3.614	3.705	3.752	3.807	3.807
30	Hungary	5.177	5.396	5.183	5.214	5.228	5.164	5.123	4.995
6	Iceland	5.889	5.719	6.126	6.158	5.974	6.161	6.299	6.435
29	Ireland	4.996	4.871	4.866	4.876	5.133	5.209	5.031	5.042
9	Israel			6.051	6.078	5.936	6.105	6.097	6.104
40	Italy	3.830	3.961	3.816	3.864	3.908	4.083	4.065	3.952
38	Japan	4.296	4.309	4.136	4.151	4.206	4.313	4.292	4.347
16	Korea	5.452	5.444	5.775	5.879	5.859	5.858	5.832	5.674
10	Latvia			6.197	6.120	6.150	6.091	6.073	5.977
12	Lithuania			5.952	5.762	5.808	5.843	5.866	5.799
28	Luxembourg	4.974	5.264	4.671	4.714	4.793	4.876	4.929	5.050
36	Malta			4.342	4.508	4.531	4.694	4.772	4.706
15	Mexico	5.407	5.708	5.767	5.720	5.707	5.694	5.706	5.745
26	Netherlands	6.101	5.745	5.220	5.180	5.153	5.148	5.112	5.143
8	New Zealand	6.529	6.327	6.166	6.175	6.094	6.071	6.110	6.222
3	Norway	6.460	6.647	6.883	6.888	6.800	6.730	6.823	6.867
31	Poland	5.308	5.470	5.531	5.622		5.041	5.047	4.9//
34 23	Portugal Romania	5.089	5.175	4.764 5.552	4.698 5.429	4.803 5.409	4.875 5.397	4.832 5.412	4.754 5.365
35	Slovakia	5.262	4.990	4.813	4.875	4.859	4.779	4.825	4.708
13	Slovenia	J.202	4.770	6.000	6.001	5.969	5.887	5.871	5.793
33	Spain	4.809	4.950	4.746	4.760	4.818	4.775	4.819	4.824
1	Sweden	7.622	7.646	7.477	7.426	7.585	7.554	7.589	7.592
7	Switzerland	5.707	5.970	6.100	6.247	6.263	6.281	6.341	6.370
18	Turkey	5.542	5.670	5.690	5.688	5.685	5.693	5.644	5.603
24	United Kingdom	5.315	5.373	5.364	5.300	5.224	5.244	5.269	5.279
37	United States	4.673	4.858	4.809	4.731	4.584	4.539	4.379	4.370
57	Since States	073	0J0		7.751		4.557	7.077	4.070

#### TABLE 1G Overview of Results

Source: Social Justice Index.

#### TABLE 1H Overview of Results

					HEA	LTH			
RANK	COUNTRY	2009	2011	2014	2015	2016	2017	2018	2019
8	Australia	6.427	6.526	6.970	7.115	7.168	7.058	7.037	7.101
12	Austria	6.842	6.708	7.058	7.039	6.862	7.065	7.179	6.918
21	Belgium	6.127	6.228	6.208	6.099	6.078	6.150	6.289	6.267
39	Bulgaria			3.802	4.315	3.954	4.260	4.089	4.220
14	Canada	6.208	6.296	6.506	6.539	6.567	6.610	6.752	6.795
38	Chile		4.169	4.497	4.628	4.384	4.428	4.523	4.557
32	Croatia			5.214	5.496	5.255	5.341	5.162	5.187
30	Cyprus			5.533	5.445	5.634	5.593	5.482	5.552
26	Czechia	5.914	6.057	6.270	6.363	6.353	6.088	5.900	5.889
10	Denmark	6.858	6.910	6.927	6.941	6.953	6.820	6.946	6.972
24	Estonia			5.742	5.714	5.795	5.842	5.991	6.078
20	Finland	6.148	6.342	6.290	6.498	6.516	6.532	6.420	6.401
4	France	7.060	6.986	7.022	6.958	6.989	7.041	7.207	7.228
13	Germany	6.232	6.296	6.645	6.706	6.694	6.742	6.747	6.816
19	Greece	5.865	6.364	6.536	6.286	6.143	6.200	6.431	6.407
37	Hungary	4.954	4.985	4.717	4.843	4.827	4.844	4.725	4.727
7	Iceland	7.321	7.425	7.098	6.866	6.836	6.899	7.060	7.124
18	Ireland	6.684	6.735	6.792	6.640	6.508	6.217	6.432	6.483
9	Israel			6.852	6.876	6.899	6.971	6.955	6.976
5	Italy	7.020	7.216	7.429	6.976	7.042	7.057	7.087	7.144
15	Japan	6.199	6.262	6.522	6.678	6.672	6.692	6.693	6.725
28	Korea	5.090	5.508	5.590	5.605	5.687	5.918	5.553	5.593
41	Latvia			3.822	3.631	3.639	3.575	3.650	3.722
33	Lithuania			5.307	5.223	5.146	4.918	4.983	5.134
2	Luxembourg	6.962	6.950	7.175	7.214	7.053	7.284	7.298	7.324
31	Malta			5.455	5.301	5.183	5.224	5.413	5.517
40	Mexico	3.569	3.620	3.568	3.413	3.589	4.113	4.027	4.057
17	Netherlands	6.595	6.487	6.720	6.637	6.416	6.486	6.548	6.610
3	New Zealand	6.772	6.816	6.914	7.031	7.078	7.049	7.192	7.277
1	Norway	7.027	6.915	7.142	7.133	7.166	7.199	7.388	7.477
34	Poland	4.577	4.748	5.080	5.011	5.032	5.009	4.999	5.062
23	Portugal	5.340	5.560	5.886	5.929	5.956	5.898	6.097	6.082
35	Romania			4.837	5.036	5.125	5.111	5.068	5.007
27	Slovakia	4.926	5.189	5.328	5.443	5.440	5.480	5.569	5.630
25	Slovenia			5.955	6.140	6.207	6.033	6.045	6.061
6	Spain	6.383	6.563	6.712	6.995	7.020	6.967	6.985	7.141
11	Sweden	7.005	7.093	7.154	7.062	7.033	6.973	7.114	6.919
16	Switzerland	6.571	6.550	6.676	6.696	6.787	6.655	6.624	6.681
36	Turkey	3.425	3.943	4.285	4.283	4.459	4.622	4.677	4.824
22	United Kingdom	6.094	6.262	6.516	6.374	6.365	6.177	6.170	6.201
29	United States	5.446	5.667	5.774	5.948	5.997	5.859	5.587	5.581

Source: Social Justice Index.

# TABLE 2 Dimension I: Poverty Prevention

INDICATOR	DEFINITION	SOURCE
A1 Poverty risk, total population	People at risk of poverty, cut-off point 50% of median equivalised disposable income, total population	Eurostat & OECD
A2 Poverty risk, children (<18)	People at risk of poverty, cut-off point 50% of median equivalised disposable income, age less than 18 years	Eurostat & OECD
A3 Poverty risk, seniors (65+)	People at risk of poverty, cut-off point 50% of median equivalised disposable income, age 65 years and over	Eurostat & OECD
Source: Social Justice Index.		Bertelsmann <b>Stiftung</b>

# TABLE 3 Dimension II: Equitable Education

INDICATOR	DEFINITION	SOURCE
B1 Education policy (SGI)	Policy performance in delivering high-quality, equitable and efficient education and training	Sustainable Governance Indicators 2019, expert assessment "To what extent does education policy deliver high-quality, equitable and efficient education and training?"
B2 PISA performance, socioeconomic impact	Student PISA performance explained by the PISA index of economic, social and cultural status (ESCS), product of the slope of the ESCS for reading performance and the strength of the relationship between reading performance and the ESCS	OECD PISA
B3 Pre-primary education expenditure	Public expenditure on pre-primary education (ISCED 0), percent of GDP	Eurostat, UNESCO, Atkinson Centre, IMF & OECD
B4 Less than upper secondary education (25-64)	Population with less than upper secondary attainment (ISCED 0-2), age group 25 to 64 years	Eurostat, OECD & UNESCO
B5 Less than upper secondary education, women/men (25-64)	Population with less than upper secondary attainment (ISCED 0-2), age group 25 to 64 years, ratio women/men	Eurostat, OECD & UNESCO
B6 PISA low performers, all subjects	Percentage of students scoring below PISA Level 2 (the baseline level of proficiency) on all scales	OECD PISA
B7 PISA low performers, socioeconomic impact	Students scoring below PISA Level 2 (the baseline level of proficiency), ratio bottom to top household income quintiles	OECD PISA

Source: Social Justice Index.

# TABLE 4 Dimension III: Labor Market Access

INDICATOR	DEFINITION	SOURCE
C1 Employment	Employment rate, age group 15 to 64 years	Eurostat & OECD
C2 Older employment	Employment rate, age group 55 to 64 years	Eurostat & OECD
C3 Employment, foreign-born/ native-born	Ratio of foreign-born/native-born employment rates, age group 15 to 64 years,  1-x	Eurostat & OECD
C4 Unemployment, foreign-born/ native-born	Ratio of foreign-born/native-born unemployment rates, age group 15 to 64 years,  1-x	Eurostat & OECD
C5 Employment, women/men	Ratio of women/men employment rates, age group 15 to 64 years	Eurostat & OECD
C6 Unemployment	Unemployment rate, age group 15 to 64 years	Eurostat & OECD
C7 Long-term unemployment	Unemployment rate, unemployed 1 year or more, age group 15 to 64 years	Eurostat, OECD & ILOSTAT
C8 Youth unemployment	Unemployment rate, age group 15 to 24 years	Eurostat & OECD
C9 Low-skilled unemployment	Unemployment rate, less than upper secondary attainment (ISCED 0-2), age group 25 to 64 years	Eurostat, OECD & ILOSTAT
C10 Involuntary part-time employment	Involuntary part-time workers as a share of all part-time workers	Eurostat & OECD
C11 Low pay incidence	Workers (excluding apprentices) earning less than 2/3 of the median earnings as a share of all workers	Eurostat & OECD
Source: Social Justice Index.		Bertelsmann <b>Stiftung</b>

# TABLE 5 Dimension IV: Social Inclusion and Non-discrimination

INDICATOR	DEFINITION	SOURCE
D1 Social inclusion policy (SGI)	Policy performance in strengthening social cohesion and inclusion	Sustainable Governance Indicators 2019, expert assessment "To what extent does social policy prevent exclusion and decoupling from society?"
D2 Gini coefficient	Gini coefficient of equivalised disposable income	Eurostat & OECD
D3 Non-discrimination policy (SGI)	Policy performance in protecting against discrimination	Sustainable Governance Indicators 2019, expert assessment "How effectively does the state protect against different forms of discrimination?"
D4 Gender equality in parliaments	Proportion of seats held by women in national parliaments	World Bank
D5 Integration policy (SGI)	Policy performance in integrating migrants into society	Sustainable Governance Indicators 2019, expert assessment "How effectively do policies support the integration of migrants into society?"
D6 NEET	Young adults neither in employment nor in education or training (NEET) as a share of all young adults, age group 20 to 24 years	Eurostat & OECD
D7 Less than upper secondary education, foreign-born/ native-born	Ratio of foreign-born/native-born with less than upper secondary attainment (ISCED 0-2), age group 15 to 64 years,  1-x	Eurostat & OECD

Source: Social Justice Index.

# TABLE 6 Dimension V: Intergenerational Justice

INDICATOR	DEFINITION	SOURCE
E1 Family policy (SGI)	Policy performance in enabling women to combine parenting with labor market participation	Sustainable Governance Indicators 2019, expert assessment "To what extent do family support policies enable women to combine parenting with participation in the labor market?"
E2 Pension policy (SGI)	Policy performance in promoting pensions that prevent poverty, are intergenerationally just and fiscally sustainable	Sustainable Governance Indicators 2019, expert assessment "To what extent does pension policy realize goals of poverty prevention, intergenerational equity and fiscal sustainability?"
E3 Environmental policy (SGI)	Policy performance in the sustainable use of natural resources and environmental protection	Sustainable Governance Indicators 2019, expert assessment "How effectively does environmental policy protect and preserve the sustainability of natural resources and quality of the environment?"
E4 Greenhouse gas emissions, per capita	Greenhouse gas emissions, excluding Land Use, Land-Use Change and Forestry (LULUFC), tons in ${\rm CO}_2$ equivalents per capita	UNFCCC & OECD
E5 Public R&D spending	Government-financed expenditure on R&D	Eurostat & OECD
E6 Private R&D spending	Non-government-financed expenditure on R&D	Eurostat & OECD
E7 Public debt	General government gross liabilities	IMF
E8 Public debt, per child	General government gross liabilities, per inhabitant, age group under 15 years, current prices, purchasing power parity	IMF, World Bank & Eurostat
E9 Renewable energy consumption	Share of energy from renewable sources in gross final energy consumption	World Bank
E10 Age dependency	Ratio of the number of persons age group 65 years and over to the working-age population (age group 15 to 64 years)	World Bank
E11 Material footprint, per capita	Total amount of raw materials extracted globally – across the entire supply chain – to meet the final consumption demand of an economy	OECD & Charles University
E12 Ecological footprint, per capita	Difference between biocapacity (i.e., an ecosystems' capacity to produce biological materials and absorb waste material) and consumption, global hectare per capita	Global Footprint Network & IMD

Source: Social Justice Index.

Bertelsmann Stiftung

# TABLE 7 Dimension VI: Health

INDICATOR	DEFINITION	SOURCE
F1 Health policy (SGI)	Policy performance in providing high-quality, inclusive and cost-efficient health care	Sustainable Governance Indicators 2019, expert assessment "To what extent do health care policies provide high-quality, inclusive and cost-efficient health care?"
F2 Infant mortality, per 1,000	Infant mortality rate, per 1,000 live births	World Bank
F3 Healthy life expectancy	Healthy life years at birth, total population	WHO & UN
F4 Perceived health status, socioeconomic impact	Population with self perceived health status "good" or "very good", ratio bottom to top equivalised disposable income quintiles	Eurostat & OECD
F5 Out-of-pocket expenses	Household out-of-pocket expenses as a share of total current health care expenditure	OECD & Eurostat
F6 Physicians, per 1,000	Practicing physicians, per 1,000 inhabitants	Eurostat, OECD & World Bank

Source: Social Justice Index.

#### TABLE 8A SJI 2009 Raw Data

COUNTRY	А	1	А	2	А	3	В	1	B	2	В	3	B	4
	VALUE	DATE												
Australia	14.0%	2012	12.9%	2012	33.5%	2012	6	2009	4.84	2006	0.05%	2006	30.1%	2008
Austria	8.8%	2008	9.6%	2008	10.5%	2008	7	2009	5.99	2006	0.40%	2006	19.1%	2008
Belgium	7.5%	2008	8.9%	2008	8.8%	2008	7	2009	7.59	2006	0.71%	2006	30.4%	2008
Bulgaria*	14.4%	2008	20.3%	2008	18.3%	2008			12.47	2006	0.74%	2006	22.5%	2008
Canada	12.7%	2008	15.6%	2008	9.3%	2008	9	2009	3.47	2006	0.25%	2006	13.0%	2008
Chile*	17.8%	2009	23.0%	2009	14.9%	2009			7.05	2006	0.32%	2006	43.5%	2009
Croatia*	13.4%	2010	12.8%	2010	19.2%	2010			3.31	2006	0.57%	2006	23.3%	2008
Cyprus*	7.5%	2008	5.1%	2008	24.9%	2008			2.83	2012	0.34%	2006	26.9%	2008
Czechia	4.7%	2008	7.8%	2008	1.6%	2008	7	2009	6.43	2006	0.51%	2006	9.1%	2008
Denmark	6.2%	2008	5.2%	2008	3.0%	2008	7	2009	3.48	2006	0.87%	2006	26.2%	2008
Estonia*	11.5%	2008	11.3%	2008	17.2%	2008			2.21	2006	0.35%	2006	11.6%	2008
Finland	6.5%	2008	5.8%	2008	6.9%	2008	10	2009	2.21	2006	0.34%	2006	18.9%	2008
France	5.7%	2008	6.8%	2008	2.5%	2008	5	2009	7.93	2006	0.64%	2006	30.5%	2008
Germany	9.2%	2008	8.3%	2008	7.5%	2008	7	2009	7.51	2006	0.47%	2006	14.7%	2008
Greece	12.7%	2008	15.6%	2008	12.3%	2008	2	2009	3.67	2006	0.11%	2004	38.7%	2008
Hungary	6.4%	2008	9.9%	2008	1.5%	2008	5	2009	8.71	2006	1.00%	2006	20.4%	2008
Iceland	4.5%	2008	4.1%	2008	4.5%	2008	8	2009	1.20	2006	1.04%	2006	35.9%	2008
Ireland	8.1%	2008	10.0%	2008	6.2%	2008	7	2009	4.63	2006	0.00%	2006	29.6%	2008
Israel*	18.1%	2011	23.8%	2011	23.8%	2011			3.26	2006	0.62%	2006	18.8%	2008
Italy	11.9%	2008	15.3%	2008	11.5%	2008	5	2009	2.25	2006	0.50%	2006	46.7%	2008
Japan	16.0%	2009	15.7%	2009	19.4%	2009	7	2009	2.88	2006	0.09%	2006	19.7%	2008
Korea	17.5%	2015	16.0%	2015	44.3%	2015	7	2009	1.84	2006	0.03%	1999	20.9%	2008
Latvia*	18.7%	2008	17.1%	2008	37.2%	2008			2.90	2006	0.67%	2006	14.1%	2008
Lithuania*	14.1%	2008	17.8%	2008	14.5%	2008			5.43	2006	0.59%	2006	9.6%	2008
Luxembourg	6.6%	2008	9.8%	2008	2.2%	2008	3	2009	8.48	2006	0.50%	2001	32.1%	2008
Malta*	8.6%	2008	11.6%	2008	12.4%	2008			5.30	2015	1.02%	2006	72.2%	2008
Mexico	18.9%	2012	22.7%	2012	27.0%	2012	4	2009	4.03	2006	0.52%	2006	70.1%	2008
Netherlands	5.0%	2008	5.4%	2008	4.3%	2008	8	2009	5.47	2006	0.41%	2006	28.6%	2008
New Zealand	9.8%	2011	14.0%	2011	9.1%	2011	9	2009	7.26	2006	0.22%	2006	25.9%	2014
Norway	7.0%	2008	5.3%	2008	5.3%	2008	6	2009	2.97	2006	0.50%	2006	20.0%	2008
Poland	10.2%	2008	14.0%	2008	5.2%	2008	4	2009	5.57	2006	0.53%	2006	12.9%	2008
Portugal	11.9%	2008	15.7%	2008	11.7%	2008	5	2009	5.85	2006	0.53%	2006	71.9%	2008
Romania*	16.8%	2008	25.5%	2008	16.2%	2008			3.49	2006	0.65%	2005	24.7%	2008
Slovakia	5.7%	2008	10.1%	2008	2.9%	2008	4	2009	6.63	2006	0.47%	2006	10.1%	2008
Slovenia*	6.8%	2008	5.6%	2008	12.4%	2008			5.91	2006	0.51%	2006	18.0%	2008
Spain	13.1%	2008	19.5%	2008	15.1%	2008	5	2009	2.82	2006	0.55%	2006	48.9%	2008
Sweden	7.2%	2008	7.9%	2008	4.9%	2008	7	2009	3.05	2006	0.59%	2006	20.0%	2008
Switzerland	9.2%	2008	10.7%	2008	17.2%	2008	7	2009	5.54	2006	0.31%	2006	13.2%	2008
Turkey	17.5%	2008	25.0%	2008	13.7%	2008	2	2009	4.02	2006	0.02%	2004	72.6%	2008
United Kingdom	11.3%	2008	13.7%	2008	15.3%	2008	6	2009	5.25	2006	0.29%	2006	26.6%	2008
United States	17.2%	2013	20.5%	2013	20.6%	2013	6	2009	8.40	2003	0.32%	2013	11.3%	2008

\* Countries not surveyed in SGI 2009.

В	5	B	6	В	7	с	1	C	2	с	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.290	2007	9.1%	2012	4.27	2012	73.2%	2008	57.3%	2008	-0.07	2008	0.10	2008	0.84	2008
0.830	2008	10.7%	2012	5.24	2012	70.8%	2008	38.8%	2008	-0.12	2008	1.38	2008	0.84	2008
-0.003	2008	11.5%	2012	6.20	2012	62.4%	2008	34.5%	2008	-0.15	2008	1.47	2008	0.82	2008
0.004	2008	28.6%	2012	3.70	2012	64.0%	2008	46.0%	2008	-0.12	2008	0.42	2008	0.87	2008
-0.142	2007	6.2%	2012	4.18	2012	73.5%	2008	57.2%	2008	-0.05	2008	0.17	2008	0.91	2008
0.026	2012	24.6%	2012	3.02	2012	58.6%	2008	56.2%	2008	0.14	2006	-0.30	2006	0.60	2008
0.432	2008	11.7%	2012	2.99	2012	60.0%	2008	37.1%	2008	-0.04	2008	0.08	2008	0.78	2008
0.126	2008	26.1%	2015	2.34	2015	70.9%	2008	54.8%	2008	0.03	2008	0.53	2008	0.79	2008
1.085	2008	8.9%	2012	4.55	2012	66.6%	2008	47.6%	2008	0.00	2008	0.59	2008	0.76	2008
0.108	2008	9.3%	2012	5.28	2012	77.9%	2008	58.4%	2008	-0.14	2008	1.26	2008	0.91	2008
-0.248	2008	3.2%	2012	4.87	2012	70.1%	2008	62.3%	2008	0.08	2008	0.09	2008	0.90	2008
-0.217	2008	5.3%	2012	4.36	2012	71.1%	2008	56.5%	2008	-0.08	2008	1.08	2008	0.94	2008
0.082	2008	12.7%	2012	8.66	2012	64.9%	2008	38.2%	2008	-0.09	2008	0.71	2008	0.87	2008
0.483	2008	8.8%	2012	5.24	2012	70.1%	2008	53.7%	2008	-0.14	2008	0.87	2008	0.85	2008
-0.065	2008	15.7%	2012	3.20	2012	61.4%	2008	43.0%	2008	0.10	2008	-0.01	2008	0.65	2008
0.396	2008	13.1%	2012	6.26	2012	56.4%	2008	30.9%	2008	0.15	2008	-0.22	2008	0.80	2008
0.127	2008	13.6%	2012	2.82	2012	83.6%	2008	82.9%	2008	-0.03	2008	0.68	2008	0.91	2008
-0.193	2008	6.8%	2012	6.24	2012	69.7%	2008	53.8%	2008	0.04	2008	0.24	2008	0.81	2008
-0.129	2007	18.5%	2012	3.87	2012	65.5%	2008	58.3%	2008	0.17	2012	-0.30	2012	0.85	2008
-0.040	2008	11.9%	2012	3.08	2012	58.6%	2008	34.3%	2008	0.12	2008	0.29	2008	0.67	2008
0.145	2010	5.5%	2012	4.20	2012	70.7%	2008	66.3%	2008	-0.07	2013	0.29	2013	0.73	2008
0.570	2007	4.4%	2012	3.12	2012	64.0%	2008	60.6%	2008	0.16	2013	0.29	2013	0.71	2008
-0.366	2008	8.3%	2012	4.41	2012	68.2%	2008	59.1%	2008	0.04	2008	0.19	2008	0.91	2008
-0.220	2008	12.1%	2012	3.76	2012	64.4%	2008	53.0%	2008	0.10	2008	0.67	2005	0.92	2008
0.253	2008	14.4%	2012	5.31	2012	63.4%	2008	34.1%	2008	0.16	2008	0.78	2008	0.77	2008
0.105	2008	21.9%	2015	3.03	2015	55.5%	2008	30.1%	2008	0.10	2008	-0.18	2008	0.52	2008
0.039	2007	31.0%	2012	1.93	2012	60.7%	2008	53.8%	2008	-0.15	2008	0.12	2008	0.54	2008
0.150	2008	8.6%	2012	4.16	2012	74.9%	2008	50.0%	2008	-0.15	2008	1.48	2008	0.83	2008
0.100	2007	11.1%	2012	5.15	2012	74.6%	2008	71.6%	2008	-0.08	2008	0.15	2008	0.85	2008
0.041	2008	11.0%	2012	2.87	2012	78.0%	2008	69.2%	2008	-0.07	2008	1.26	2008	0.94	2008
0.089	2008	5.7%	2012	6.97	2012	59.2%	2008	31.6%	2008	-0.27	2008	-0.32	2005	0.79	2008
-0.070	2008	12.6%	2012	5.97	2012	68.0%	2008	50.7%	2008	0.09	2008	0.19	2008	0.85	2008
0.472	2008	24.0%	2012	3.63	2012	59.0%	2008	43.1%	2008	0.06	2008	-0.10	2008	0.80	2008
0.753	2008	18.8%	2012	5.48	2012	62.3%	2008	39.2%	2008	0.09	2008	0.04	2006	0.78	2008
0.250	2008	9.9%	2012	4.91	2012	68.6%	2008	32.8%	2008	0.00	2008	0.20	2008	0.88	2008
-0.024	2008	10.4%	2012	4.80	2012	64.5%	2008	45.5%	2008	0.04	2008	0.63	2008	0.76	2008
0.015	2008	15.0%	2012	2.91	2012	74.3%	2008	70.1%	2008	-0.16	2008	1.30	2008	0.94	2008
0.750	2008	7.5%	2012	4.91	2012	79.5%	2008	68.4%	2008	-0.07	2008	1.58	2008	0.86	2008
0.188	2008	15.6%	2012	2.50	2012	44.9%	2008	27.5%	2008	-0.05	2012	0.37	2012	0.35	2008
0.294	2008	11.2%	2012	3.80	2012	71.5%	2008	58.0%	2008	-0.06	2008	0.29	2008	0.85	2008
-0.178	2007	12.2%	2012	4.33	2012	70.9%	2008	62.1%	2008	0.02	2008	-0.02	2008	0.86	2008

### TABLE 8B SJI 2009 Raw Data

COUNTRY	C	5	с	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	4.3%	2008	0.8%	2008	8.8%	2008	5.2%	2008	22.5%	2008	16.0%	2007	7	2009
Austria	4.2%	2008	1.0%	2008	8.5%	2008	6.8%	2008	11.2%	2008	14.2%	2006	8	2009
Belgium	7.0%	2008	3.3%	2008	18.0%	2008	10.8%	2008	14.4%	2008	6.8%	2006	8	2009
Bulgaria*	5.7%	2008	2.9%	2008	12.7%	2008	13.6%	2008	51.0%	2008	18.9%	2006		
Canada	6.2%	2008	0.4%	2008	11.6%	2008	9.1%	2008	22.5%	2008	22.0%	2007	7	2009
Chile*	9.5%	2008	1.2%	2010	23.7%	2008	8.2%	2009	56.5%	2008	13.0%	2006		
Croatia*	8.7%	2008	5.4%	2008	23.7%	2008	9.5%	2008	21.8%	2008	21.4%	2010		
Cyprus*	3.8%	2008	0.5%	2008	9.0%	2008	4.8%	2008	30.3%	2008	22.7%	2006		
Czechia	4.4%	2008	2.2%	2008	9.9%	2008	17.3%	2008	14.0%	2008	17.1%	2006	8	2009
Denmark	3.5%	2008	0.5%	2008	8.0%	2008	3.6%	2008	12.7%	2008	8.3%	2006	9	2009
Estonia*	5.6%	2008	1.7%	2008	12.0%	2008	9.8%	2008	13.4%	2008	23.2%	2006		
Finland	6.4%	2008	1.2%	2008	16.5%	2008	8.1%	2008	27.5%	2008	4.8%	2006	9	2009
France	7.1%	2008	2.6%	2008	18.3%	2008	9.1%	2008	34.9%	2008	7.1%	2006	6	2009
Germany	7.6%	2008	4.0%	2008	10.6%	2008	16.5%	2008	23.0%	2008	20.3%	2006	7	2009
Greece	7.9%	2008	3.7%	2008	21.9%	2008	6.9%	2008	44.1%	2008	15.7%	2006	3	2009
Hungary	7.9%	2008	3.7%	2008	19.5%	2008	17.7%	2008	28.4%	2008	21.9%	2006	5	2009
Iceland	3.0%	2008	0.4%	2009	8.2%	2008	2.5%	2008	8.7%	2008	11.2%	2006	7	2009
Ireland	6.9%	2008	1.8%	2008	13.5%	2008	8.5%	2008	13.6%	2008	21.4%	2006	7	2009
Israel*	7.8%	2008	1.8%	2008	12.5%	2008	9.9%	2008	17.0%	2008	22.3%	2007		
Italy	6.8%	2008	3.1%	2008	21.2%	2008	7.4%	2008	41.3%	2008	10.3%	2006	5	2009
Japan	4.2%	2008	1.3%	2008	7.2%	2008	0.0%	2009	24.8%	2008	15.4%	2007	7	2009
Korea	3.3%	2008	0.0%	2008	9.3%	2008	2.5%	2008	16.8%	2008	26.0%	2007	6	2009
Latvia*	8.0%	2008	1.9%	2008	13.6%	2008	13.0%	2008	31.3%	2008	30.9%	2006		
Lithuania*	5.9%	2008	1.3%	2008	13.3%	2008	9.6%	2008	22.4%	2008	29.1%	2006		
Luxembourg	5.1%	2008	1.6%	2008	17.9%	2008	4.8%	2008	9.4%	2008	13.2%	2006	9	2009
Malta*	6.0%	2008	2.6%	2008	11.7%	2008	6.8%	2008	15.8%	2008	14.4%	2006		
Mexico	4.0%	2008	0.1%	2008	7.7%	2008	2.8%	2008	26.1%	2008	19.1%	2007	4	2009
Netherlands	3.7%	2008	1.3%	2008	8.6%	2008	4.0%	2008	4.5%	2008	17.7%	2006	9	2009
New Zealand	4.3%	2008	0.2%	2008	11.4%	2008	3.7%	2008	17.1%	2008	13.4%	2007	8	2009
Norway	2.6%	2008	0.3%	2008	7.5%	2008	3.7%	2008	16.3%	2008	6.5%	2006	10	2009
Poland	7.2%	2008	2.4%	2008	17.3%	2008	11.5%	2008	18.5%	2008	24.7%	2006	5	2009
Portugal	8.0%	2008	3.8%	2008	16.7%	2008	7.6%	2008	40.3%	2008	20.7%	2006	4	2009
Romania*	6.1%	2008	2.5%	2008	18.6%	2008	6.5%	2008	51.8%	2008	26.9%	2006		
Slovakia	9.5%	2008	6.6%	2008	19.0%	2008	35.9%	2008	23.0%	2008	18.3%	2006	7	2009
Slovenia*	4.5%	2008	1.9%	2008	10.4%	2008	5.9%	2008	6.8%	2008	19.2%	2006		
Spain	11.3%	2008	2.0%	2008	24.5%	2008	13.2%	2008	36.0%	2008	13.4%	2006	5	2009
Sweden	6.3%	2008	0.8%	2008	20.2%	2008	7.0%	2008	26.1%	2008	1.8%	2006	9	2009
Switzerland	3.4%	2008	1.1%	2008	7.0%	2008	6.0%	2008	5.8%	2008	11.0%	2010	8	2009
Turkey	9.9%	2008	2.4%	2008	18.5%	2008	8.3%	2008	7.9%	2008	0.2%	2006	3	2009
United Kingdom	5.7%	2008	1.4%	2008	15.0%	2008	6.6%	2008	10.6%	2007	21.8%	2006	6	2009
United States	5.9%	2008	0.6%	2008	12.8%	2008	10.1%	2008	5.5%	2008	24.5%	2007	5	2009

\* Countries not surveyed in SGI 2009.

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E:	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
32.6%	2012	7	2009	26.7%	2008	9	2009	10.7%	2008	-0.293	2010	7	2009	8	2009
27.7%	2008	7	2009	27.3%	2008	6	2009	9.2%	2008	0.583	2008	6	2009	8	2009
27.5%	2008	8	2009	35.3%	2008	7	2009	15.1%	2008	0.327	2008	9	2009	7	2009
35.9%	2008			21.7%	2008			21.6%	2008	-0.730	2008				
31.5%	2008	9	2009	22.1%	2008	9	2009	13.3%	2008	-0.250	2010	8	2009	9	2009
48.0%	2009			15.0%	2008			27.5%	2009	-0.419	2013				
31.6%	2010			20.9%	2008			13.7%	2008	0.229	2008				
29.0%	2008			14.3%	2008			13.3%	2008	-0.125	2008				
24.7%	2008	6	2009	15.5%	2008	5	2009	10.4%	2008	0.433	2008	7	2009	7	2009
25.1%	2008	7	2009	38.0%	2008	7	2009	6.2%	2008	0.145	2008	9	2009	9	2009
30.9%	2008			20.8%	2008			11.9%	2008	-0.664	2008				
26.3%	2008	9	2009	41.5%	2008	7	2009	10.5%	2008	0.285	2008	9	2009	9	2009
29.8%	2008	7	2009	18.2%	2008	6	2009	15.7%	2008	0.482	2008	9	2009	6	2009
30.2%	2008	8	2009	32.2%	2008	6	2009	12.9%	2008	1.074	2008	7	2009	7	2009
33.4%	2008	6	2009	14.7%	2008	5	2009	15.8%	2008	0.255	2008	3	2009	2	2009
25.2%	2008	6	2009	11.1%	2008	5	2009	17.1%	2008	-0.270	2008	5	2009	5	2009
27.3%	2008	9	2009	33.3%	2008	6	2009	5.1%	2008	-0.033	2008	10	2009	7	2009
29.9%	2008	9	2009	13.3%	2008	7	2009	15.6%	2008	-0.442	2008	7	2009	8	2009
37.1%	2011			14.2%	2008			37.5%	2008	-0.266	2010				
31.2%	2008	7	2009	21.3%	2008	5	2009	21.6%	2008	0.002	2008	4	2009	4	2009
33.6%	2009	6	2009	9.4%	2008	4	2009	11.1%	2008	0.654	2010	5	2009	5	2009
35.2%	2015	5	2009	13.7%	2008	4	2009	22.2%	2008	-0.041	2013	5	2009	5	2009
37.5%	2008			20.0%	2008			15.7%	2008	-0.490	2008				
34.5%	2008			17.7%	2008			14.9%	2008	-0.497	2008				
27.7%	2008	7	2009	23.3%	2008	8	2009	10.0%	2008	-0.081	2008	6	2009	8	2009
28.1%	2008			8.7%	2008			7.3%	2008	-0.271	2008				
45.7%	2012	5	2009	23.2%	2008	5	2009	26.5%	2008	-0.483	2010	4	2009	4	2009
27.6%	2008	9	2009	41.3%	2008	7	2009	5.7%	2008	0.245	2008	9	2009	9	2009
32.3%	2011	9	2009	33.6%	2008	9	2009	14.1%	2008	-0.465	2010	9	2009	9	2009
25.1%	2008	9	2009	36.1%	2008	8	2009	5.6%	2008	0.195	2008	10	2009	9	2009
32.0%	2008	5	2009	20.2%	2008	4	2009	14.9%	2008	-0.168	2008	4	2009	7	2009
35.8%	2008	8	2009	28.3%	2008	9	2009	13.2%	2008	-0.264	2008	5	2009	5	2009
35.9%	2008			11.4%	2008			13.8%	2008	-0.800	2008				
23.7%	2008	6	2009	19.3%	2008	4	2009	16.1%	2008	-0.469	2008	5	2009	9	2009
23.4%	2008			13.3%	2008			8.7%	2008	0.574	2008				
32.4%	2008	8	2009	36.3%	2008	7	2009	16.6%	2008	-0.091	2008	5	2009	5	2009
25.1%	2008	8	2009	47.0%	2008	7	2009	11.7%	2008	0.323	2008	10	2009	9	2009
31.1%	2008	7	2009	28.5%	2008	7	2009	6.7%	2008	0.896	2008	4	2009	8	2009
43.0%	2008	3	2009	9.1%	2008	4	2009	45.0%	2008	-0.403	2012	4	2009	4	2009
33.9%	2008	9	2009	19.5%	2008	8	2009	16.1%	2008	-0.206	2008	7	2009	7	2009
39.6%	2013	9	2009	17.0%	2008	9	2009	17.2%	2008	1.864	2010	6	2009	6	2009

#### TABLE 8C SJI 2009 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	5	2009	25.60	2007	0.75%	2006	1.25%	2006	11.75%	2008	25.0	2008	6.7%	2005
Austria	8	2009	10.54	2007	0.76%	2006	1.60%	2006	68.42%	2008	190.7	2008	24.2%	2005
Belgium	7	2009	13.08	2007	0.41%	2006	1.40%	2006	92.53%	2008	218.2	2008	2.5%	2005
Bulgaria*			9.06	2007	0.28%	2006	0.17%	2006	14.72%	2008	17.6	2008	9.9%	2005
Canada	5	2009	22.61	2007	0.61%	2006	1.34%	2006	68.03%	2008	161.1	2008	22.3%	2005
Chile*			5.64	2007	0.11%	2007	0.20%	2007	4.92%	2008	3.9	2008	32.3%	2005
Croatia*			7.38	2007	0.41%	2006	0.33%	2006	39.56%	2008	54.8	2008	26.8%	2005
Cyprus*			9.29	2007	0.26%	2006	0.12%	2006	44.13%	2008	88.4	2008	3.4%	2005
Czechia	7	2009	14.60	2007	0.55%	2006	0.68%	2006	28.25%	2008	55.7	2008	7.5%	2005
Denmark	8	2009	12.87	2007	0.66%	2005	1.73%	2005	33.31%	2008	77.6	2008	16.1%	2005
Estonia*			16.58	2007	0.50%	2006	0.62%	2006	4.49%	2008	7.4	2008	18.9%	2005
Finland	7	2009	15.03	2007	0.84%	2006	2.50%	2006	32.65%	2008	78.6	2008	31.5%	2005
France	7	2009	8.39	2007	0.79%	2006	1.26%	2006	68.78%	2008	134.5	2008	8.6%	2005
Germany	8	2009	11.84	2007	0.68%	2006	1.78%	2006	65.15%	2008	189.2	2008	6.8%	2005
Greece	3	2009	12.22	2007	0.27%	2005	0.31%	2005	109.42%	2008	236.1	2008	7.7%	2005
Hungary	6	2009	7.20	2007	0.44%	2006	0.54%	2006	71.24%	2008	108.7	2008	4.7%	2005
Iceland	4	2009	15.58	2007	1.14%	2006	1.75%	2006	66.15%	2008	138.2	2008	62.5%	2005
Ireland	5	2009	15.46	2007	0.38%	2006	0.82%	2006	42.41%	2008	92.7	2008	2.9%	2005
Israel*			10.74	2007	0.55%	2006	3.59%	2006	71.86%	2008	72.6	2008	7.0%	2005
Italy	4	2009	9.59	2007	0.51%	2006	0.58%	2006	102.41%	2008	262.5	2008	6.7%	2005
Japan	7	2009	10.89	2007	0.53%	2006	2.75%	2006	183.42%	2008	473.1	2008	3.7%	2005
Korea	5	2009	11.89	2007	0.65%	2006	2.18%	2006	28.16%	2008	44.9	2008	0.9%	2005
Latvia*			5.61	2007	0.25%	2006	0.40%	2006	18.04%	2008	26.5	2008	36.3%	2005
Lithuania*			7.83	2007	0.42%	2006	0.37%	2006	14.57%	2008	21.1	2008	17.5%	2005
Luxembourg	6	2009	25.56	2007	0.26%	2005	1.31%	2005	14.91%	2008	75.5	2008	1.9%	2005
Malta*			7.54	2007	0.16%	2006	0.42%	2006	62.61%	2008	109.8	2008	0.2%	2005
Mexico	5	2009	5.81	2007	0.18%	2006	0.19%	2006	42.49%	2008	22.2	2008	10.3%	2005
Netherlands	6	2009	12.68	2007	0.69%	2005	1.08%	2005	53.79%	2008	138.9	2008	2.8%	2005
New Zealand	7	2009	19.25	2007	0.48%	2005	0.64%	2005	18.98%	2008	27.9	2008	29.3%	2005
Norway	8	2009	12.11	2007	0.65%	2005	0.83%	2005	47.20%	2008	155.8	2008	58.6%	2005
Poland	6	2009	10.98	2007	0.32%	2006	0.23%	2006	46.30%	2008	57.9	2008	7.2%	2005
Portugal	5	2009	7.45	2007	0.46%	2006	0.49%	2006	71.67%	2008	121.1	2008	18.1%	2005
Romania*			7.33	2007	0.29%	2006	0.16%	2006	13.00%	2008	13.9	2008	18.5%	2005
Slovakia	4	2009	9.16	2007	0.26%	2006	0.22%	2006	28.46%	2008	43.5	2008	6.3%	2005
Slovenia*			10.33	2007	0.53%	2006	1.00%	2006	21.65%	2008	46.6	2008	14.6%	2005
Spain	4	2009	9.84	2007	0.50%	2006	0.67%	2006	39.40%	2008	90.0	2008	7.3%	2005
Sweden	8	2009	7.10	2007	0.83%	2005	2.55%	2005	37.74%	2008	94.6	2008	40.0%	2005
Switzerland	7	2009	6.94	2007	0.61%	2004	2.06%	2004	45.87%	2008	157.7	2008	19.3%	2005
Turkey	3	2009	5.63	2007	0.27%	2006	0.29%	2006	38.15%	2008	24.2	2008	15.3%	2005
United Kingdom	7	2009	11.03	2007	0.50%	2006	1.08%	2006	49.69%	2008	104.1	2008	1.4%	2005
United States	6	2009	24.47	2007	0.76%	2006	1.79%	2006	73.68%	2008	173.9	2008	5.8%	2005

\* Countries not surveyed in SGI 2009.

E1	0	E1	1	E1:	2	F1		F2	2	F3		F4		F5	;	F6	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
19.4	2008	43.31	2007	6.60	2006	8	2009	4.5	2007	71.4	2005	0.81	2007	19.0%	2007	2.84	2006
25.4	2008	30.97	2007	-3.54	2006	9	2009	3.8	2007	70.6	2005	0.70	2008	18.8%	2007	4.45	2006
26.3	2008	24.92	2007	-6.94	2006	9	2009	3.9	2007	69.9	2005	0.65	2008	18.7%	2007	2.89	2006
25.7	2008	11.59	2007	-1.62	2006			9.9	2007	64.7	2005	0.60	2008	44.5%	2011	3.99	2014
19.7	2008	33.22	2007	7.59	2006	8	2009	5.1	2007	71.3	2005	0.81	2008	15.5%	2007	2.08	2006
13.0	2008	13.00	2007	-0.12	2006			7.7	2007	68.6	2005	0.64	2003	39.2%	2007	1.05	2006
25.9	2008	17.14	2007	-1.67	2006			5.3	2007	66.6	2005	0.51	2010	12.8%	2013	2.61	2006
15.8	2008	31.31	2007	-5.13	2006			3.6	2007	71.2	2005	0.59	2008	41.0%	2010	2.50	2014
20.8	2008	19.94	2007	-3.97	2006	7	2009	3.2	2007	67.0	2005	0.61	2008	13.6%	2007	3.57	2006
24.3	2008	28.71	2007	-3.89	2006	9	2009	3.8	2007	69.6	2005	0.81	2008	14.6%	2007	3.38	2006
25.5	2008	29.04	2007	0.90	2006			4.7	2007	64.4	2005	0.38	2008	22.2%	2007	3.18	2006
24.8	2008	40.16	2007	6.24	2006	8	2009	2.8	2007	69.6	2005	0.67	2008	19.8%	2007	3.03	2006
25.4	2008	23.84	2007	-2.75	2006	8	2009	3.6	2007	71.3	2005	0.82	2008	9.3%	2007	3.32	2006
30.3	2008	21.65	2007	-3.76	2006	7	2009	3.7	2007	70.2	2005	0.67	2008	14.3%	2007	3.44	2006
27.1	2008	37.70	2007	-4.61	2006	4	2009	3.4	2007	70.5	2005	0.78	2008	39.4%	2008	5.41	2006
23.2	2008	15.12	2007	-1.63	2006	5	2009	5.8	2007	64.6	2005	0.81	2008	26.3%	2007	3.04	2006
17.7	2008	57.68	2007	-16.43	2008	9	2009	2.3	2007	71.9	2005	0.82	2008	16.0%	2007	3.60	2006
15.9	2008	45.13	2007	-2.91	2006	7	2009	3.9	2007	69.8	2005	0.80	2008	11.6%	2007	3.63	2006
16.3	2008	21.62	2007	-5.52	2006			4.1	2007	70.8	2005	0.87	2008	26.6%	2007	3.21	2006
30.5	2008	25.09	2007	-4.82	2006	7	2009	3.6	2007	71.9	2005	0.76	2008	21.5%	2007	6.10	2006
32.6	2008	25.12	2007	-4.39	2006	7	2009	2.6	2007	73.2	2005	0.68	2007	15.5%	2007	2.08	2006
13.6	2008	25.56	2007	-4.93	2006	8	2009	4.1	2007	69.9	2005	0.71	2008	36.7%	2007	1.69	2006
26.1	2008	19.31	2007	0.92	2006			7.8	2007	62.8	2005	0.38	2008	36.8%	2007	3.03	2006
24.9	2008	30.22	2007	-1.60	2006			6.5	2007	62.8	2005	0.51	2008	28.4%	2007	4.47	2006
20.8	2008	107.55	2007	-13.62	2006	9	2009	2.7	2007	70.4	2005	0.80	2008	10.3%	2007	2.64	2006
20.8	2008	29.28	2007	-6.01	2006			5.9	2007	70.5	2005	0.66	2008	36.8%	2014	3.15	2003
9.0	2008	9.34	2007	-1.66	2006	5	2009	16.3	2007	66.2	2005	0.86	2008	52.5%	2007	1.87	2006
21.9	2008	27.87	2007	-6.20	2006	8	2009	4.1	2007	70.4	2005	0.76	2008	8.7%	2007	2.80	2006
18.9	2008	26.34	2007	4.95	2006	8	2009	5.3	2007	71.0	2005	0.96	2007	11.5%	2007	2.27	2006
22.3	2008	37.33	2007	1.74	2006	8	2009	3.0	2007	71.2	2005	0.81	2008	16.1%	2007	3.79	2006
18.6		15.99	2007	-2.68	2006	4	2009	6.0	2007	66.3	2005	0.79	2008	26.3%	2007	2.18	2006
	2008		2007		2006	6	2009	3.3		69.6	2005	0.55	2008		2007	3.43	2006
22.6		13.97		-0.89	2006			12.2	2007	64.0	2005	0.85	2008	24.3%	2011	2.21	2006
16.8			2007	-1.79		6	2009	6.4		65.8	2005	0.73	2008	27.4%		3.17	2006
23.3			2007	-3.37	2006				2007	67.7		0.55	2008	13.6%	2007	2.36	2006
	2008		2007	-4.48	2006		2009	3.6		71.5	2005	0.74	2008	21.0%	2007	3.62	2006
	2008		2007		2006		2009		2007	71.2		0.76	2008	16.9%	2007	3.60	2006
	2008		2007	-4.48	2006		2009	4.1		71.3	2005	0.80	2008	29.7%	2007	3.85	2006
	2008		2007	-1.45		4		20.2		62.6	2005	0.78	2008	23.9%	2007		2006
24.6			2007	-4.96		7		4.9	2007	69.9	2005	0.76	2008	10.4%	2007	2.43	2006
18.8	2008	38.27	2007	-6.52	2006	6	2009	6.5	2007	67.9	2005	0.77	2008	13.4%	2007	2.42	2006

# TABLE 9A SJI 2011 Raw Data

COUNTRY	A	1	A	2	A	3	В	1	B	2	В	3	B	4
	VALUE	DATE												
Australia	14.0%	2012	12.9%	2012	33.5%	2012	8	2011	5.84	2009	0.04%	2008	26.8%	2010
Austria	9.1%	2010	11.3%	2010	9.8%	2010	5	2011	7.97	2009	0.46%	2008	17.6%	2010
Belgium	7.9%	2010	10.3%	2010	7.8%	2010	7	2011	9.07	2009	0.75%	2008	29.5%	2010
Bulgaria*	15.2%	2010	21.6%	2010	22.1%	2010			10.30	2009	0.85%	2008	20.9%	2010
Canada	13.1%	2010	15.7%	2010	10.0%	2010	9	2011	2.75	2009	0.25%	2006	11.7%	2010
Chile	17.8%	2009	23.0%	2009	14.9%	2009	4	2011	5.80	2009	0.43%	2008	43.5%	2009
Croatia*	13.4%	2010	12.8%	2010	19.2%	2010			3.52	2009	0.60%	2008	22.7%	2010
Cyprus*	8.4%	2010	5.9%	2010	21.8%	2010			2.83	2012	0.35%	2008	26.0%	2010
Czechia	5.2%	2010	9.7%	2010	1.3%	2010	7	2011	5.70	2009	0.49%	2008	8.1%	2010
Denmark	7.9%	2010	6.3%	2010	5.5%	2010	7	2011	5.22	2009	0.90%	2008	24.4%	2010
Estonia*	9.4%	2010	11.9%	2010	3.7%	2010			2.20	2009	0.55%	2008	10.7%	2010
Finland	5.5%	2010	3.6%	2010	4.7%	2010	10	2011	2.42	2009	0.36%	2008	17.0%	2010
France	7.3%	2010	9.5%	2010	3.8%	2010	6	2011	8.52	2009	0.64%	2008	29.3%	2010
Germany	9.2%	2010	9.4%	2010	7.0%	2010	6	2011	7.88	2009	0.50%	2008	13.9%	2010
Greece	12.4%	2010	15.3%	2010	9.6%	2010	3	2011	4.25	2009	0.11%	2004	37.3%	2010
Hungary	6.0%	2010	10.0%	2010	1.4%	2010	4	2011	12.48	2009	0.96%	2008	18.8%	2010
Iceland	5.4%	2010	6.5%	2010	2.1%	2010	8	2011	1.67	2009	1.13%	2008	33.5%	2010
Ireland	7.1%	2010	7.9%	2010	6.0%	2010	5	2011	4.91	2009	0.00%	2008	26.9%	2010
Israel*	18.1%	2011	23.8%	2011	23.8%	2011			5.38	2009	0.62%	2008	17.9%	2010
Italy	12.1%	2010	17.4%	2010	7.9%	2010	5	2011	3.78	2009	0.49%	2008	44.9%	2010
Japan	16.0%	2009	15.7%	2009	19.4%	2009	6	2011	3.44	2009	0.09%	2008	19.7%	2010
Korea	17.5%	2015	16.0%	2015	44.3%	2015	7	2011	3.52	2009	0.03%	1999	19.6%	2010
Latvia*	14.5%	2010	20.1%	2010	6.1%	2010			2.99	2009	0.85%	2008	11.4%	2010
Lithuania*	14.6%	2010	18.9%	2010	3.7%	2010			4.49	2009	0.52%	2008	8.1%	2010
Luxembourg	8.0%	2010	11.8%	2010	3.1%	2010	4	2011	7.20	2009	0.51%	2008	22.3%	2010
Malta*	8.0%	2010	10.3%	2010	9.5%	2010			5.30	2015	0.37%	2008	67.0%	2010
Mexico	18.9%	2012	22.7%	2012	27.0%	2012	4	2011	3.63	2009	0.58%	2008	67.9%	2010
Netherlands	4.9%	2010	5.9%	2010	2.1%	2010	6	2011	4.74	2009	0.39%	2008	27.6%	2010
New Zealand	9.8%	2011	14.0%	2011	9.1%	2011	9	2011	8.63	2009	0.34%	2008	25.9%	2014
Norway	6.1%	2010	6.6%	2010	2.3%	2010	6	2011	3.10	2009	0.51%	2008	19.1%	2010
Poland	10.5%	2010	13.9%	2010	6.8%	2010	6	2011	5.77	2009	0.57%	2008	11.5%	2010
Portugal	11.3%	2010	15.2%	2010	10.1%	2010	5	2011	4.95	2009	0.48%	2008	68.3%	2010
Romania*	15.3%	2010	24.5%	2010	9.8%	2010			4.90	2009	0.77%	2007	26.1%	2010
Slovakia	7.8%	2010	13.2%	2010	2.2%	2010	3	2011	5.99	2009	0.53%	2008	9.0%	2010
Slovenia*	7.3%	2010	7.2%	2010	11.4%	2010			5.58	2009	0.49%	2008	16.7%	2010
Spain	13.8%	2010	21.0%	2010	11.0%	2010	5	2011	3.94	2009	0.64%	2008	47.1%	2010
Sweden	8.5%	2010	9.3%	2010	4.1%	2010	8	2011	5.76	2009	0.67%	2008	18.8%	2010
Switzerland	8.7%	2010	9.4%	2010	17.2%	2010	8	2011	5.64	2009	0.28%	2008	15.0%	2010
Turkey	17.6%	2010	24.9%	2010	14.4%	2010	3	2011	5.51	2009	0.02%	2004	71.6%	2010
United Kingdom	9.9%	2010	10.1%	2010	12.1%	2010	6	2011	6.03	2009	0.27%	2008	23.9%	2010
United States	17.2%	2013	20.5%	2013	20.6%	2013	7	2011	7.06	2009	0.32%	2013	11.0%	2010

\* Countries not surveyed in SGI 2011.

В	5	В	6	В	7	с	1	C	2	с	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.195	2010	9.1%	2012	4.27	2012	72.4%	2010	60.6%	2010	-0.06	2010	0.06	2010	0.84	2010
0.802	2010	10.7%	2012	5.24	2012	70.8%	2010	41.2%	2010	-0.10	2010	1.17	2010	0.86	2010
-0.033	2010	11.5%	2012	6.20	2012	62.0%	2010	37.3%	2010	-0.17	2010	1.48	2010	0.84	2010
-0.010	2010	28.6%	2012	3.70	2012	59.8%	2010	44.9%	2010	-0.21	2010	0.11	2010	0.89	2010
-0.199	2010	6.2%	2012	4.18	2012	71.5%	2010	58.1%	2010	-0.05	2010	0.27	2010	0.93	2010
0.026	2012	24.6%	2012	3.02	2012	59.3%	2010	58.0%	2010	0.19	2009	-0.24	2009	0.65	2010
0.462	2010	11.7%	2012	2.99	2012	57.4%	2010	39.1%	2010	-0.06	2010	0.16	2010	0.83	2010
0.064	2010	26.1%	2015	2.34	2015	68.9%	2010	56.3%	2010	0.05	2010	0.49	2010	0.84	2010
1.096	2010	8.9%	2012	4.55	2012	65.0%	2010	46.5%	2010	0.05	2010	-0.03	2010	0.77	2010
0.077	2010	9.3%	2012	5.28	2012	73.3%	2010	58.4%	2010	-0.15	2010	1.00	2010	0.94	2010
-0.404	2010	3.2%	2012	4.87	2012	61.2%	2010	53.8%	2010	-0.03	2010	0.39	2010	0.99	2010
-0.229	2010	5.3%	2012	4.36	2012	68.1%	2010	56.2%	2010	-0.12	2010	1.11	2010	0.96	2010
0.089	2010	12.7%	2012	8.66	2012	64.0%	2010	39.7%	2010	-0.10	2010	0.68	2010	0.88	2010
0.439	2010	8.8%	2012	5.24	2012	71.3%	2010	57.8%	2010	-0.11	2010	0.83	2010	0.87	2010
-0.092	2010	15.7%	2012	3.20	2012	59.1%	2010	42.4%	2010	0.09	2010	0.31	2010	0.68	2010
0.382	2010	13.1%	2012	6.26	2012	54.9%	2010	33.6%	2010	0.19	2010	-0.29	2010	0.84	2010
0.027	2010	13.6%	2012	2.82	2012	78.2%	2010	79.8%	2010	-0.05	2010	0.86	2010	0.95	2010
-0.203	2010	6.8%	2012	6.24	2012	61.0%	2010	50.2%	2010	-0.01	2010	0.23	2010	0.88	2010
-0.140	2010	18.5%	2012	3.87	2012	65.2%	2010	59.6%	2010	0.17	2012	-0.30	2012	0.88	2010
-0.037	2010	11.9%	2012	3.08	2012	56.8%	2010	36.5%	2010	0.10	2010	0.41	2010	0.68	2010
0.145	2010	5.5%	2012	4.20	2012	70.1%	2010	65.2%	2010	-0.07	2013	0.29	2013	0.75	2010
0.590	2010	4.4%	2012	3.12	2012	63.4%	2010	60.9%	2010	0.16	2013	0.29	2013	0.71	2010
-0.443	2010	8.3%	2012	4.41	2012	58.5%	2010	47.8%	2010	0.02	2010	-0.03	2010	1.02	2010
-0.209	2010	12.1%	2012	3.76	2012	57.6%	2010	48.3%	2010	0.08	2010	0.04	2010	1.04	2010
0.316	2010	14.4%	2012	5.31	2012	65.2%	2010	39.6%	2010	0.16	2010	0.93	2010	0.78	2010
0.089	2010	21.9%	2015	3.03	2015	56.2%	2010	31.9%	2010	0.08	2010	0.13	2010	0.54	2010
0.026	2010	31.0%	2012	1.93	2012	59.7%	2010	53.5%	2010	-0.17	2010	0.21	2010	0.55	2010
0.123	2010	8.6%	2012	4.16	2012	73.9%	2010	52.9%	2010	-0.16	2010	1.07	2010	0.86	2010
0.106	2010	11.1%	2012	5.15	2012	72.2%	2010	73.2%	2010	-0.07	2010	0.14	2010	0.85	2010
0.048	2010	11.0%	2012	2.87	2012	75.3%	2010	68.6%	2010	-0.10	2010	1.87	2010	0.95	2010
0.035	2010	5.7%	2012	6.97	2012	58.9%	2010	34.1%	2010	-0.14	2010	0.40	2009	0.81	2010
-0.092	2010	12.6%	2012	5.97	2012	65.3%	2010	49.5%	2010	0.06	2010	0.37	2010	0.87	2010
0.417	2010	24.0%	2012	3.63	2012	60.2%	2010	40.7%	2010	0.30	2010	-0.06	2009	0.77	2010
0.514	2010	18.8%	2012	5.48	2012	58.8%	2010	40.5%	2010	-0.04	2010	0.08	2009	0.80	2010
0.257	2010	9.9%	2012	4.91	2012	66.2%	2010	35.0%	2010	-0.02	2010	0.33	2010	0.90	2010
-0.050	2010	10.4%	2012	4.80	2012	58.8%	2010	43.5%	2010	-0.03	2010	0.60	2010	0.81	2010
0.000	2010	15.0%	2012	2.91	2012	72.1%	2010	70.4%	2010	-0.18	2010	1.23	2010	0.93	2010
0.542	2010	7.5%	2012	4.91	2012	77.3%	2010	66.2%	2010	-0.08	2010	1.37	2010	0.86	2010
0.194	2010	15.6%	2012	2.50	2012	46.3%	2010	29.6%	2010	-0.05	2012	0.37	2012	0.39	2010
0.261	2010	11.2%	2012	3.80	2012	69.4%	2010	57.2%	2010	-0.06	2010	0.14	2010	0.87	2010
-0.165	2010	12.2%	2012	4.33	2012	66.7%	2010	60.3%	2010	0.04	2010	-0.01	2010	0.88	2010

# TABLE 9B SJI 2011 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	5.3%	2010	1.0%	2010	11.6%	2010	6.2%	2010	25.3%	2010	14.5%	2009	7	2011
Austria	4.9%	2010	1.3%	2010	9.5%	2010	8.1%	2010	11.6%	2010	14.2%	2006	8	2011
Belgium	8.4%	2010	4.1%	2010	22.4%	2010	13.2%	2010	11.4%	2010	6.8%	2006	8	2011
Bulgaria*	10.3%	2010	4.8%	2010	21.9%	2010	21.7%	2010	52.7%	2010	18.9%	2006		
Canada	8.2%	2010	1.0%	2010	14.9%	2010	12.4%	2010	27.8%	2010	20.6%	2009	7	2011
Chile	8.4%	2010	1.2%	2010	18.6%	2010	8.2%	2009	56.5%	2010	9.7%	2009	4	2011
Croatia*	11.9%	2010	6.7%	2010	32.4%	2010	12.0%	2010	23.1%	2010	21.4%	2010		
Cyprus*	6.5%	2010	1.3%	2010	16.6%	2010	7.1%	2010	34.7%	2010	22.7%	2006		
Czechia	7.4%	2010	3.0%	2010	18.3%	2010	22.7%	2010	15.8%	2010	17.1%	2006	7	2011
Denmark	7.6%	2010	1.5%	2010	14.0%	2010	9.0%	2010	15.6%	2010	8.3%	2006	9	2011
Estonia*	17.1%	2010	7.7%	2010	32.9%	2010	27.3%	2010	22.1%	2010	23.2%	2006		
Finland	8.5%	2010	2.0%	2010	21.4%	2010	11.6%	2010	27.9%	2010	4.8%	2006	8	2011
France	8.9%	2010	3.6%	2010	22.5%	2010	12.1%	2010	34.8%	2010	7.1%	2006	6	2011
Germany	7.1%	2010	3.4%	2010	9.8%	2010	15.7%	2010	21.7%	2010	20.3%	2006	7	2011
Greece	12.9%	2010	5.8%	2010	33.0%	2010	11.9%	2010	54.7%	2010	15.7%	2006	4	2011
Hungary	11.3%	2010	5.5%	2010	26.4%	2010	23.6%	2010	35.8%	2010	21.9%	2006	5	2011
Iceland	7.7%	2010	1.3%	2010	16.2%	2010	7.2%	2010	21.7%	2010	11.2%	2006	7	2011
Ireland	14.8%	2010	7.1%	2010	28.1%	2010	19.4%	2010	31.9%	2010	21.4%	2006	8	2011
Israel*	8.6%	2010	1.9%	2010	14.3%	2010	9.8%	2010	16.5%	2010	22.2%	2009		
Italy	8.5%	2010	4.1%	2010	27.9%	2010	9.0%	2010	50.2%	2010	10.3%	2006	5	2011
Japan	5.3%	2010	1.9%	2010	9.2%	2010	0.0%	2010	30.8%	2010	14.7%	2009	7	2011
Korea	3.8%	2010	0.0%	2010	9.7%	2010	3.1%	2010	23.2%	2010	25.0%	2009	5	2011
Latvia*	19.8%	2010	8.9%	2010	36.2%	2010	29.1%	2010	42.3%	2010	30.9%	2006		
Lithuania*	18.1%	2010	7.6%	2010	35.7%	2010	37.8%	2010	39.2%	2010	29.1%	2006		
Luxembourg	4.4%	2010	1.3%	2010	14.2%	2010	4.1%	2010	7.9%	2010	13.2%	2006	9	2011
Malta*	6.9%	2010	3.1%	2010	13.2%	2010	8.2%	2010	19.6%	2010	14.4%	2006		
Mexico	5.5%	2010	0.1%	2010	9.8%	2010	4.1%	2010	29.7%	2010	16.9%	2009	3	2011
Netherlands	5.1%	2010	1.4%	2010	11.1%	2010	5.9%	2010	5.6%	2010	17.7%	2006	8	2011
New Zealand	6.7%	2010	0.6%	2010	17.4%	2010	6.1%	2010	20.4%	2010	12.9%	2009	8	2011
Norway	3.6%	2010	0.7%	2010	9.3%	2010	5.4%	2010	17.8%	2010	6.5%	2006	10	2011
Poland	9.7%	2010	3.0%	2010	23.7%	2010	16.1%	2010	21.7%	2010	24.7%	2006	5	2011
Portugal	11.4%	2010	6.0%	2010	22.8%	2010	11.7%	2010	42.1%	2010	20.7%	2006	4	2011
Romania*	7.3%	2010	2.5%	2010	22.1%	2010	5.5%	2010	53.0%	2010	26.9%	2006		
Slovakia	14.4%	2010	9.2%	2010	33.6%	2010	40.8%	2010	27.7%	2010	18.3%	2006	5	2011
Slovenia*	7.4%	2010	3.2%	2010	14.7%	2010	11.2%	2010	7.5%	2010	19.2%	2006		
Spain	20.0%	2010	7.3%	2010	41.5%	2010	24.5%	2010	50.1%	2010	13.4%	2006	5	2011
Sweden	8.8%	2010	1.6%	2010	24.8%	2010	11.6%	2010	28.1%	2010	1.8%	2006	9	2011
Switzerland	4.9%	2010	1.6%	2010	8.2%	2010	8.1%	2010	7.2%	2010	11.0%	2010	8	2011
Turkey	10.9%	2010	2.8%	2010	19.7%	2010	9.2%	2010	8.6%	2010	0.2%	2006	4	2011
United Kingdom	7.9%	2010	2.6%	2010	19.9%	2010	10.3%	2010	10.6%	2007	21.8%	2006	7	2011
United States	9.8%	2010	2.8%	2010	18.4%	2010	16.8%	2010	8.7%	2010	24.8%	2009	6	2011

\* Countries not surveyed in SGI 2011.

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
32.6%	2012	8	2011	24.7%	2010	9	2011	11.2%	2010	-0.293	2010	7	2011	9	2011
28.3%	2010	6	2011	27.9%	2010	4	2011	9.6%	2010	0.569	2010	6	2011	6	2011
26.6%	2010	8	2011	39.3%	2010	6	2011	16.2%	2010	0.350	2010	9	2011	6	2011
33.2%	2010			20.8%	2010			26.0%	2010	-0.860	2010				
31.6%	2010	9	2011	22.1%	2010	9	2011	15.6%	2010	-0.250	2010	8	2011	9	2011
48.0%	2009	6	2011	14.2%	2010	4	2011	27.5%	2009	-0.419	2013	6	2011	8	2011
31.6%	2010			23.5%	2010			20.3%	2010	0.205	2010				
30.1%	2010			12.5%	2010			16.2%	2010	-0.030	2010				
24.9%	2010	6	2011	22.0%	2010	5	2011	13.3%	2010	0.238	2010	6	2011	7	2011
26.9%	2010	7	2011	38.0%	2010	7	2011	8.5%	2010	0.028	2010	9	2011	9	2011
31.3%	2010			22.8%	2010			20.8%	2010	-0.646	2010				
25.4%	2010	9	2011	40.0%	2010	7	2011	13.3%	2010	0.361	2010	9	2011	9	2011
29.8%	2010	6	2011	18.9%	2010	6	2011	18.6%	2010	0.548	2010	10	2011	5	2011
29.3%	2010	8	2011	32.8%	2010	6	2011	12.4%	2010	1.117	2010	7	2011	7	2011
32.9%	2010	6	2011	17.3%	2010	5	2011	21.4%	2010	0.367	2010	4	2011	2	2011
24.1%	2010	6	2011	9.1%	2010	5	2011	19.9%	2010	-0.297	2010	5	2011	7	2011
25.7%	2010	9	2011	42.9%	2010	6	2011	9.5%	2010	-0.107	2010	9	2011	7	2011
30.7%	2010	9	2011	13.9%	2010	7	2011	25.2%	2010	-0.237	2010	7	2011	6	2011
37.1%	2011			19.2%	2010			37.4%	2010	-0.266	2010				
31.7%	2010	7	2011	21.3%	2010	4	2011	25.9%	2010	0.026	2010	4	2011	5	2011
33.6%	2009	5	2011	11.3%	2010	4	2011	12.4%	2010	0.654	2010	6	2011	4	2011
35.2%	2015	5	2011	14.7%	2010	4	2011	23.5%	2010	-0.041	2013	4	2011	6	2011
35.9%	2010			20.0%	2010			25.9%	2010	-0.545	2010				
37.0%	2010			19.1%	2010			22.2%	2010	-0.560	2009				
27.9%	2010	8	2011	20.0%	2010	9	2011	7.2%	2010	-0.044	2010	9	2011	8	2011
28.6%	2010			8.7%	2010			10.0%	2010	-0.223	2010				
45.7%	2012	5	2011	26.2%	2010	4	2011	26.1%	2010	-0.483	2010	6	2011	5	2011
25.5%	2010	9	2011	40.7%	2010	8	2011	7.4%	2010	0.283	2010	8	2011	8	2011
32.3%	2011	9	2011	33.6%	2010	9	2011	17.8%	2010	-0.465	2010	9	2011	8	2011
23.6%	2010	9	2011	39.6%	2010	8	2011	7.6%	2010	0.167	2010	10	2011	9	2011
31.1%	2010	7	2011	20.0%	2010	4	2011	17.2%	2010	-0.350	2010	6	2011	7	2011
33.7%	2010	7	2011	27.4%	2010	8	2011	15.9%	2010	-0.266	2010	5	2011	4	2011
33.5%	2010			11.4%	2010			22.0%	2010	-0.800	2010				
25.9%	2010	4	2011	15.3%	2010	4	2011	21.7%	2010	-0.043	2010	5	2011	7	2011
23.8%	2010			14.4%	2010			9.8%	2010	0.704	2010				
33.5%	2010	8	2011	36.6%	2010	6	2011	23.2%	2010	-0.056	2010	5	2011	5	2011
25.5%	2010	9	2011	45.0%	2010	7	2011	11.5%	2010	0.397	2010	10	2011	9	2011
29.6%	2010	8	2011	29.0%	2010	7	2011	8.6%	2010	0.836	2010	4	2011	9	2011
43.5%	2010	3	2011	9.1%	2010	4	2011	42.1%	2010	-0.403	2012	4	2011	5	2011
32.9%	2010	8	2011	22.0%	2010	8	2011	18.5%	2010	-0.209	2010	8	2011	8	2011
39.6%	2013	9	2011	16.8%	2010	8	2011	19.4%	2010	1.864	2010	7	2011	7	2011

### TABLE 9C SJI 2011 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	5	2011	24.94	2009	0.78%	2008	1.47%	2008	20.49%	2010	45	2010	7.0%	2007
Austria	6	2011	9.63	2009	0.95%	2008	1.62%	2008	82.42%	2010	235	2010	28.6%	2007
Belgium	6	2011	11.69	2009	0.45%	2008	1.47%	2008	99.72%	2010	237	2010	3.3%	2007
Bulgaria*			7.79	2009	0.27%	2008	0.18%	2008	14.09%	2010	17	2010	8.9%	2007
Canada	5	2011	20.27	2009	0.63%	2008	1.23%	2008	81.34%	2010	197	2010	22.1%	2007
Chile	5	2011	5.36	2009	0.13%	2008	0.25%	2008	8.56%	2010	7	2010	30.5%	2007
Croatia*			6.62	2009	0.44%	2008	0.44%	2008	58.12%	2010	76	2010	22.7%	2007
Cyprus*			8.90	2009	0.25%	2008	0.14%	2008	55.80%	2010	113	2010	4.4%	2007
Czechia	7	2011	13.14	2009	0.56%	2008	0.68%	2008	37.36%	2010	72	2010	8.3%	2007
Denmark	8	2011	11.57	2009	0.65%	2007	1.87%	2007	42.59%	2010	99	2010	17.7%	2007
Estonia*			12.56	2009	0.63%	2008	0.63%	2008	6.55%	2010	9	2010	18.6%	2007
Finland	8	2011	12.70	2009	0.77%	2008	2.78%	2008	47.12%	2010	110	2010	31.8%	2007
France	6	2011	7.89	2009	0.80%	2008	1.26%	2008	85.26%	2010	166	2010	9.3%	2007
Germany	8	2011	11.09	2009	0.74%	2008	1.86%	2008	80.96%	2010	241	2010	9.4%	2007
Greece	3	2011	11.21	2009	0.41%	2008	0.25%	2008	146.25%	2010	289	2010	7.9%	2007
Hungary	7	2011	6.44	2009	0.41%	2008	0.57%	2008	80.25%	2010	120	2010	6.1%	2007
Iceland	4	2011	15.52	2009	0.97%	2008	1.52%	2008	85.38%	2010	162	2010	66.8%	2007
Ireland	6	2011	13.57	2009	0.47%	2008	0.92%	2008	86.00%	2010	176	2010	3.6%	2007
Israel*			9.99	2009	0.53%	2008	3.81%	2008	70.69%	2010	75	2010	6.7%	2007
Italy	5	2011	8.40	2009	0.49%	2008	0.67%	2008	115.41%	2010	287	2010	8.7%	2007
Japan	7	2011	9.75	2009	0.52%	2008	2.82%	2008	207.85%	2010	545	2010	3.8%	2007
Korea	4	2011	12.10	2009	0.79%	2008	2.33%	2008	30.83%	2010	57	2010	1.0%	2007
Latvia*			5.22	2009	0.28%	2008	0.30%	2008	46.40%	2010	58	2010	33.1%	2007
Lithuania*			6.29	2009	0.43%	2008	0.36%	2008	36.22%	2010	49	2010	17.1%	2007
Luxembourg	7	2011	23.32	2009	0.29%	2007	1.30%	2007	19.79%	2010	101	2010	3.6%	2007
Malta*			6.98	2009	0.15%	2008	0.38%	2008	67.46%	2010	126	2010	0.3%	2007
Mexico	5	2011	5.85	2009	0.27%	2008	0.20%	2008	41.96%	2010	22	2010	9.5%	2007
Netherlands	5	2011	12.18	2009	0.64%	2007	1.03%	2007	59.26%	2010	154	2010	3.7%	2007
New Zealand	6	2011	18.24	2009	0.49%	2007	0.67%	2007	29.69%	2010	45	2010	29.1%	2007
Norway	8	2011	11.01	2009	0.70%	2007	0.86%	2007	42.31%	2010	139	2010	57.4%	2007
Poland	6	2011	10.31	2009	0.36%	2008	0.24%	2008	53.13%	2010	73	2010	7.3%	2007
Portugal	6	2011	6.91	2009	0.63%	2008	0.82%	2008	90.53%	2010	157	2010	23.2%	2007
Romania*			6.36	2009	0.39%	2008	0.16%	2008	30.86%	2010	32	2010	18.2%	2007
Slovakia	4	2011	8.43	2009	0.24%	2008	0.22%	2008	41.20%	2010	65	2010	8.2%	2007
Slovenia*			9.61	2009	0.51%	2008	1.12%	2008	38.18%	2010	76	2010	14.1%	2007
Spain	5	2011	8.03	2009	0.60%	2008	0.72%	2008	60.07%	2010	130	2010	9.0%	2007
Sweden	8	2011	6.27	2009	0.80%	2007	2.45%	2007	38.60%	2010	99	2010	42.9%	2007
Switzerland	8	2011	6.79	2009	0.62%	2008	2.09%	2008	42.55%	2010	149	2010	19.9%	2007
Turkey	4	2011	5.55	2009	0.22%	2008	0.47%	2008	40.08%	2010	26	2010	12.5%	2007
United Kingdom	7	2011	9.63	2009	0.50%	2008	1.12%	2008	75.24%	2010	155	2010	1.8%	2007
United States	6	2011	21.87	2009	0.84%	2008	1.93%	2008	95.41%	2010	229	2010	6.3%	2007

\* Countries not surveyed in SGI 2011.

E1	0	E1	1	E1:	2	F1		F2	2	F3	3	F4		F5	;	Fć	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
19.9	2010	40.54	2009	5.09	2008	8	2011	4.2	2009	71.4	2005	0.81	2007	19.1%	2009	3.02	2008
26.4	2010	30.33	2009	-3.44	2008	8	2011	3.7	2009	70.6	2005	0.68	2010	18.1%	2009	4.60	2008
26.4	2010	23.83	2009	-6.70	2008	9	2011	3.7	2009	69.9	2005	0.66	2010	17.6%	2009	2.92	2008
26.4	2010	11.47	2009	-1.60	2008			9.3	2009	64.7	2005	0.62	2010	44.5%	2011	3.99	2014
20.5	2010	32.06	2009	7.79	2008	8	2011	5.0	2009	71.3	2005	0.82	2010	15.0%	2009	2.17	2008
13.5	2010	13.35	2009	-0.35	2008	7	2011	7.7	2009	68.6	2005	0.71	2009	34.6%	2009	1.04	2008
26.2	2010	15.95	2009	-1.75	2008			4.9	2009	66.6	2005	0.51	2010	12.8%	2013	2.74	2008
16.1	2010	27.07	2009	-5.42	2008			3.2	2009	71.2	2005	0.66	2010	41.0%	2010	2.50	2014
22.0	2010	17.54	2009	-3.84	2008	7	2011	2.8	2009	67.0	2005	0.66	2010	15.1%	2009	3.56	2008
25.5	2010	25.44	2009	-3.71	2008	9	2011	3.5	2009	69.6	2005	0.79	2010	13.7%	2009	3.49	2008
26.0	2010	23.83	2009	2.57	2008			4.0	2009	64.4	2005	0.52	2010	20.3%	2009	4.13	2008
26.0	2010	36.50	2009	5.93	2008	8	2011	2.6	2009	69.6	2005	0.72	2010	19.4%	2009	3.07	2008
26.0	2010	23.09	2009	-2.87	2008	7	2011	3.5	2009	71.3	2005	0.86	2010	10.1%	2009	3.30	2008
31.2	2010	21.27	2009	-3.60	2008	7	2011	3.6	2009	70.2	2005	0.67	2010	13.8%	2009	3.54	2008
27.5	2010	35.44	2009	-4.38	2008	5	2011	3.3	2009	70.5	2005	0.77	2010	29.3%	2009	6.12	2008
23.3	2010	14.85	2009	-1.40	2008	4	2011	5.3	2009	64.6	2005	0.85	2010	26.2%	2009	3.09	2008
17.9	2010	32.04	2009	-16.43	2008	8	2011	2.1	2009	71.9	2005	0.91	2010	16.6%	2009	3.64	2008
16.4	2010	29.60	2009	-2.55	2008	6	2011	3.6	2009	69.8	2005	0.84	2010	12.7%	2009	3.95	2008
16.8	2010	20.38	2009	-5.21	2008			3.8	2009	70.8	2005	0.90	2010	25.3%	2009	3.42	2008
31.3	2010	23.13	2009	-4.37	2008	7	2011	3.4	2009	71.9	2005	0.81	2010	20.7%	2009	6.21	2008
35.1	2010	23.04	2009	-4.22	2008	7	2011	2.4	2009	73.2	2005	0.68	2010	15.2%	2009	2.15	2008
14.6	2010	23.85	2009	-5.04	2008	8	2011	3.7	2009	69.9	2005	0.80	2010	35.0%	2009	1.85	2008
26.8	2010	15.10	2009	2.31	2008			7.0	2009	62.8	2005	0.62	2010	38.8%	2009	3.23	2008
25.4	2010	26.39	2009	-1.22	2008			5.3	2009	62.8	2005	0.78	2010	26.8%	2009	4.19	2008
20.5	2010	98.13	2009	-13.82	2008	8	2011	2.5	2009	70.4	2005	0.83	2010	9.9%	2009	2.73	2008
22.5	2010	26.08	2009	-6.10	2008			5.9	2009	70.5	2005	0.74	2010	36.8%	2014	3.36	2008
9.2	2010	8.46	2009	-1.80	2008	5	2011	15.3	2009	66.2	2005	0.87	2010	47.4%	2009	1.94	2008
23.0	2010	27.15	2009	-6.28	2008	7	2011	3.8	2009	70.4	2005	0.77	2010	9.7%	2009	2.87	2008
19.6	2010	21.40	2009	4.71	2008	8	2011	5.2	2009	71.0	2005	0.96	2007	12.4%	2009	2.46	2008
22.5	2010	33.37	2009	1.02	2008	7	2011	2.7	2009	71.2	2005	0.78	2010	15.3%	2009	4.00	2008
18.9	2010	14.56	2009	-2.91	2008	5	2011	5.4	2009	66.3	2005	0.74	2010	24.4%	2009	2.16	2008
28.2	2010	19.15	2009	-3.22	2008	7	2011	3.2	2009	69.6	2005	0.53	2010	24.6%	2009	3.61	2008
22.9	2010	13.43	2009	-1.01	2008			10.2	2009	64.0	2005	0.98	2010	24.3%	2011	2.45	2008
17.2	2010	39.18	2009	-2.53	2008	5	2011	6.0	2009	65.8	2005	0.78	2010	22.4%	2009	3.37	2008
24.1	2010	23.70	2009	-3.45	2008			2.8	2009	67.7	2005	0.60	2010	12.8%	2009	2.40	2008
25.2	2010	25.27	2009	-4.13	2008	7	2011	3.3	2009	71.5	2005	0.78	2010	19.5%	2009	3.54	2008
27.9	2010	20.23	2009	4.06	2008	9	2011	2.6	2009	71.2	2005	0.77	2010	16.9%	2009	3.74	2008
24.8	2010	28.45	2009	-4.68	2008	9	2011	4.0	2009	71.3	2005	0.78	2010	28.8%	2009	3.82	2008
11.0	2010	12.23	2009	-1.64	2008	5	2011	17.6	2009	62.6	2005	0.78	2010	14.5%	2009	1.61	2008
25.2	2010	21.71	2009	-4.67	2008	7	2011	4.6	2009	69.9	2005	0.78	2010	9.4%	2009	2.54	2008
19.4	2010	30.05	2009	-5.73	2008	7	2011	6.4	2009	67.9	2005	0.77	2010	12.5%	2009	2.44	2008

# TABLE 10A SJI 2014 Raw Data

COUNTRY	A	1	A	2	А	3	В	1	B	2	В	3	В	4
	VALUE	DATE												
Australia	14.0%	2012	12.9%	2012	33.5%	2012	7	2014	4.98	2012	0.11%	2011	24.3%	2013
Austria	8.6%	2013	9.6%	2013	9.8%	2013	5	2014	6.42	2012	0.59%	2011	17.0%	2013
Belgium	8.3%	2013	10.1%	2013	5.8%	2013	6	2014	6.30	2012	0.78%	2011	27.2%	2013
Bulgaria	15.1%	2013	23.1%	2013	16.5%	2013	4	2014	11.52	2012	0.88%	2011	18.2%	2013
Canada	13.3%	2013	17.1%	2013	8.5%	2013	8	2014	2.41	2012	0.42%	2011	10.5%	2013
Chile	16.8%	2013	22.5%	2013	15.0%	2013	3	2014	6.37	2012	0.53%	2011	38.6%	2013
Croatia	13.5%	2013	14.8%	2013	14.4%	2013	6	2014	3.75	2012	0.66%	2011	18.7%	2013
Cyprus	8.1%	2013	9.1%	2013	7.9%	2013	7	2014	2.83	2012	0.41%	2011	21.5%	2013
Czechia	4.3%	2013	6.3%	2013	1.4%	2013	6	2014	6.76	2012	0.66%	2011	7.2%	2013
Denmark	6.9%	2013	4.8%	2013	3.8%	2013	6	2014	5.99	2012	1.61%	2011	21.7%	2013
Estonia	10.8%	2013	12.4%	2013	5.1%	2013	9	2014	1.76	2012	0.44%	2011	9.4%	2013
Finland	5.4%	2013	3.7%	2013	5.0%	2013	9	2014	2.47	2012	0.40%	2011	14.1%	2013
France	6.9%	2013	9.0%	2013	3.4%	2013	6	2014	10.90	2012	0.66%	2011	25.0%	2013
Germany	9.4%	2013	7.2%	2013	8.0%	2013	6	2014	5.61	2012	0.56%	2011	13.3%	2013
Greece	16.6%	2013	22.3%	2013	6.5%	2013	3	2014	4.06	2012	0.11%	2004	32.8%	2013
Hungary	9.2%	2013	14.7%	2013	1.6%	2013	4	2014	8.47	2012	0.89%	2011	17.5%	2013
Iceland	4.9%	2013	6.4%	2013	1.6%	2013	8	2014	1.87	2012	1.12%	2011	27.8%	2013
Ireland	8.1%	2013	8.1%	2013	7.2%	2013	6	2014	5.89	2012	0.10%	2011	22.9%	2013
Israel	18.6%	2013	24.3%	2013	24.1%	2013	6	2014	4.96	2012	0.59%	2011	15.0%	2013
Italy	12.8%	2013	17.7%	2013	6.8%	2013	4	2014	2.98	2012	0.44%	2011	41.8%	2013
Japan	16.1%	2012	16.3%	2012	19.0%	2012	6	2014	2.99	2012	0.10%	2011	19.7%	2010
Korea	17.5%	2015	16.0%	2015	44.3%	2015	8	2014	2.57	2012	0.03%	1999	16.3%	2013
Latvia	12.9%	2013	16.3%	2013	6.5%	2013	5	2014	5.00	2012	0.82%	2011	10.6%	2013
Lithuania	13.1%	2013	17.8%	2013	8.4%	2013	7	2014	3.56	2012	0.71%	2011	6.6%	2013
Luxembourg	8.4%	2013	13.0%	2013	2.8%	2013	4	2014	5.82	2012	0.75%	2011	19.5%	2013
Malta	8.7%	2013	14.5%	2013	6.8%	2013	5	2014	5.30	2015	0.42%	2011	58.8%	2013
Mexico	18.9%	2012	22.7%	2012	27.0%	2012	5	2014	2.27	2012	0.53%	2011	65.2%	2013
Netherlands	5.2%	2013	5.7%	2013	2.2%	2013	6	2014	4.17	2012	0.41%	2011	24.2%	2013
New Zealand	9.9%	2012	12.8%	2012	8.2%	2012	9	2014	8.51	2012	0.51%	2011	25.9%	2014
Norway	5.5%	2013	4.5%	2013	1.4%	2013	6	2014	2.07	2012	0.55%	2011	17.6%	2013
Poland	10.8%	2013	14.5%	2013	6.2%	2013	6	2014	4.77	2012	0.54%	2011	9.9%	2013
Portugal	12.6%	2013	17.4%	2013	6.3%	2013	4	2014	5.18	2012	0.47%	2011	60.2%	2013
Romania	16.7%	2013	26.4%	2013	7.5%	2013	4	2014	6.33	2012	0.67%	2011	24.3%	2013
Slovakia	7.8%	2013	13.7%	2013	1.2%	2013	4	2014	13.39	2012	0.53%	2011	8.1%	2013
Slovenia	8.5%	2013	8.3%	2013	11.4%	2013	7	2014	5.62	2012	0.65%	2011	14.5%	2013
Spain	13.9%	2013	20.2%	2013	6.3%	2013	5	2014	3.92	2012	0.68%	2011	44.5%	2013
Sweden	9.1%	2013	11.1%	2013	5.4%	2013	8	2014	3.45	2012	0.72%	2011	16.8%	2013
Switzerland	8.1%	2013	7.0%	2013	19.1%	2013	8	2014	5.22	2012	0.28%	2011	13.6%	2013
Turkey	16.3%	2013	24.3%	2013	13.5%	2013	4	2014	4.30	2012	0.17%	2011	68.1%	2013
United Kingdom	9.0%	2013	9.3%	2013	9.0%	2013	7	2014	4.75	2012	0.32%	2011	21.7%	2013
United States	17.2%	2013	20.5%	2013	20.6%	2013	7	2014	4.20	2012	0.32%	2013	10.4%	2013

В	5	B	6	В	7	с	1	C	2	С	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.134	2012	9.1%	2012	4.27	2012	72.0%	2013	61.4%	2013	-0.05	2013	0.04	2013	0.86	2013
0.698	2013	10.7%	2012	5.24	2012	71.4%	2013	43.8%	2013	-0.10	2013	1.20	2013	0.88	2013
-0.074	2013	11.5%	2012	6.20	2012	61.8%	2013	41.7%	2013	-0.17	2013	1.53	2013	0.86	2013
-0.022	2013	28.6%	2012	3.70	2012	59.5%	2013	47.4%	2013	-0.04	2013	0.30	2012	0.91	2013
-0.210	2012	6.2%	2012	4.18	2012	72.4%	2013	60.3%	2013	-0.03	2013	0.19	2013	0.93	2013
0.026	2012	24.6%	2012	3.02	2012	62.3%	2013	64.0%	2013	0.28	2013	-0.48	2013	0.69	2013
0.422	2013	11.7%	2012	2.99	2012	52.5%	2013	37.8%	2013	-0.11	2013	0.36	2013	0.86	2013
0.053	2013	26.1%	2015	2.34	2015	61.7%	2013	49.6%	2013	0.09	2013	0.01	2013	0.85	2013
0.769	2013	8.9%	2012	4.55	2012	67.7%	2013	51.6%	2013	0.03	2013	0.19	2013	0.79	2013
-0.045	2013	9.3%	2012	5.28	2012	72.5%	2013	61.7%	2013	-0.15	2013	0.89	2013	0.93	2013
-0.463	2013	3.2%	2012	4.87	2012	68.5%	2013	62.6%	2013	0.00	2013	0.28	2013	0.92	2013
-0.297	2013	5.3%	2012	4.36	2012	68.9%	2013	58.5%	2013	-0.08	2013	0.85	2013	0.97	2013
0.079	2013	12.7%	2012	8.66	2012	64.0%	2013	45.6%	2013	-0.13	2013	0.79	2013	0.89	2013
0.363	2013	8.8%	2012	5.24	2012	73.5%	2013	63.6%	2013	-0.08	2013	0.69	2013	0.88	2013
-0.087	2013	15.7%	2012	3.20	2012	48.8%	2013	35.6%	2013	-0.03	2013	0.44	2013	0.69	2013
0.311	2013	13.1%	2012	6.26	2012	58.1%	2013	37.9%	2013	0.17	2013	-0.03	2013	0.83	2013
0.147	2013	13.6%	2012	2.82	2012	81.1%	2013	81.1%	2013	-0.01	2013	0.67	2013	0.95	2013
-0.221	2013	6.8%	2012	6.24	2012	61.7%	2013	51.2%	2013	0.01	2013	0.20	2013	0.86	2013
-0.096	2012	18.5%	2012	3.87	2012	67.1%	2013	64.6%	2013	0.17	2013	-0.30	2013	0.88	2013
-0.071	2013	11.9%	2012	3.08	2012	55.5%	2013	42.7%	2013	0.05	2013	0.43	2013	0.72	2013
0.145	2010	5.5%	2012	4.20	2012	71.7%	2013	66.8%	2013	-0.07	2013	0.29	2013	0.77	2013
0.627	2012	4.4%	2012	3.12	2012	64.6%	2013	64.4%	2013	0.16	2013	0.29	2013	0.72	2013
-0.468	2013	8.3%	2012	4.41	2012	65.0%	2013	54.8%	2013	-0.05	2013	0.06	2013	0.95	2013
-0.329	2013	12.1%	2012	3.76	2012	63.7%	2013	53.4%	2013	0.08	2013	-0.22	2013	0.97	2013
0.125	2013	14.4%	2012	5.31	2012	65.7%	2013	40.5%	2013	0.19	2013	0.80	2013	0.82	2013
0.028	2013	21.9%	2015	3.03	2015	62.2%	2013	37.1%	2013	0.27	2013	-0.17	2013	0.65	2013
0.049	2012	31.0%	2012	1.93	2012	60.8%	2013	55.0%	2013	-0.11	2013	0.35	2013	0.57	2013
0.118	2013	8.6%	2012	4.16	2012	73.6%	2013	59.2%	2013	-0.19	2013	1.06	2013	0.88	2013
0.043	2012	11.1%	2012	5.15	2012	72.9%	2013	74.3%	2013	-0.03	2013	-0.06	2013	0.87	2013
-0.044	2013	11.0%	2012	2.87	2012	75.4%	2013	71.1%	2013	-0.08	2013	1.79	2013	0.95	2013
0.010	2013	5.7%	2012	6.97	2012	60.0%	2013	40.6%	2013	-0.01	2013	0.17	2013	0.80	2013
-0.129	2013	12.6%	2012	5.97	2012	60.6%	2013	46.9%	2013	0.04	2013	0.32	2013	0.91	2013
0.348	2013	24.0%	2012	3.63	2012	60.1%	2013	41.8%	2013	-0.01	2013	0.12	2012	0.78	2013
0.547	2013	18.8%	2012	5.48	2012	59.9%	2013	44.0%	2013	0.11	2013	-0.25	2013	0.80	2013
0.109	2013	9.9%	2012	4.91	2012	63.3%	2013	33.5%	2013	-0.05	2013	0.58	2013	0.88	2013
-0.088	2013	10.4%	2012	4.80	2012	54.8%	2013	43.2%	2013	-0.09	2013	0.47	2013	0.85	2013
-0.080	2013	15.0%	2012	2.91	2012	74.4%	2013	73.6%	2013	-0.19	2013	1.52	2013	0.95	2013
0.386	2013	7.5%	2012	4.91	2012	78.4%	2013	69.3%	2013	-0.07	2013	1.55	2013	0.88	2013
0.200	2013	15.6%	2012	2.50	2012	49.5%	2013	31.5%	2013	-0.06	2013	0.24	2013	0.43	2013
0.112	2013	11.2%	2012	3.80	2012	70.5%	2013	59.8%	2013	-0.05	2013	0.17	2013	0.87	2013
-0.143	2012	12.2%	2012	4.33	2012	67.4%	2013	60.9%	2013	0.04	2013	-0.09	2013	0.86	2013

# TABLE 10B SJI 2014 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C	11	D	1
	VALUE	DATE												
Australia	5.8%	2013	1.1%	2013	12.2%	2013	7.1%	2013	26.5%	2013	17.6%	2012	6	2014
Austria	5.4%	2013	1.3%	2013	9.7%	2013	9.5%	2013	11.8%	2013	15.0%	2010	7	2014
Belgium	8.5%	2013	3.9%	2013	23.7%	2013	13.5%	2013	9.5%	2013	6.4%	2010	7	2014
Bulgaria	13.0%	2013	7.5%	2013	28.4%	2013	28.5%	2013	61.8%	2013	22.0%	2010	4	2014
Canada	7.2%	2013	0.9%	2013	13.7%	2013	11.0%	2013	27.1%	2013	21.8%	2012	7	2014
Chile	6.2%	2013	0.6%	2013	16.1%	2013	5.2%	2013	50.6%	2013	9.4%	2011	4	2014
Croatia	17.5%	2013	11.1%	2013	50.0%	2013	19.8%	2013	24.8%	2013	21.4%	2010	4	2014
Cyprus	16.1%	2013	6.2%	2013	38.9%	2013	18.0%	2013	55.8%	2013	22.6%	2010	7	2014
Czechia	7.0%	2013	3.0%	2013	19.0%	2013	23.4%	2013	16.9%	2013	18.2%	2010	6	2014
Denmark	7.2%	2013	1.8%	2013	13.1%	2013	9.2%	2013	18.3%	2013	8.2%	2010	8	2014
Estonia	8.9%	2013	4.0%	2013	18.7%	2013	13.7%	2013	18.5%	2013	23.8%	2010	6	2014
Finland	8.3%	2013	1.7%	2013	19.9%	2013	12.2%	2013	26.1%	2013	5.9%	2010	8	2014
France	10.0%	2013	4.0%	2013	24.1%	2013	14.0%	2013	39.4%	2013	6.1%	2010	7	2014
Germany	5.3%	2013	2.4%	2013	7.8%	2013	12.3%	2013	15.6%	2013	22.2%	2010	7	2014
Greece	27.7%	2013	18.6%	2013	58.3%	2013	28.7%	2013	68.2%	2013	12.8%	2010	3	2014
Hungary	10.2%	2013	5.0%	2013	26.6%	2013	21.6%	2013	43.2%	2013	19.5%	2010	5	2014
Iceland	5.5%	2013	1.0%	2013	10.6%	2013	5.7%	2013	17.6%	2013	9.0%	2010	7	2014
Ireland	14.0%	2013	8.2%	2013	26.7%	2013	20.8%	2013	42.3%	2013	20.7%	2010	7	2014
Israel	6.3%	2013	0.8%	2013	10.5%	2013	8.6%	2013	13.8%	2013	21.8%	2012	4	2014
Italy	12.3%	2013	7.0%	2013	40.0%	2013	14.4%	2013	62.8%	2013	12.4%	2010	4	2014
Japan	4.3%	2013	1.7%	2013	6.9%	2013	0.0%	2013	22.7%	2013	14.3%	2012	6	2014
Korea	3.2%	2013	0.0%	2013	9.3%	2013	2.3%	2013	11.7%	2013	23.9%	2012	6	2014
Latvia	12.1%	2013	5.9%	2013	23.2%	2013	22.6%	2013	40.7%	2013	27.8%	2010	5	2014
Lithuania	12.0%	2013	5.2%	2013	21.9%	2013	32.9%	2013	32.7%	2013	27.2%	2010	6	2014
Luxembourg	5.9%	2013	1.8%	2013	15.5%	2013	8.6%	2013	10.6%	2013	13.1%	2010	9	2014
Malta	6.2%	2013	2.8%	2013	12.7%	2013	8.1%	2013	16.5%	2013	17.6%	2010	6	2014
Mexico	5.1%	2013	0.1%	2013	9.5%	2013	3.8%	2013	23.8%	2013	16.0%	2012	3	2014
Netherlands	7.3%	2013	2.6%	2013	13.2%	2013	9.0%	2013	9.8%	2013	17.5%	2010	8	2014
New Zealand	6.5%	2013	0.8%	2013	16.3%	2013	6.8%	2013	21.7%	2013	13.6%	2012	7	2014
Norway	3.5%	2013	0.7%	2013	9.1%	2013	5.4%	2013	18.8%	2013	7.3%	2010	9	2014
Poland	10.5%	2013	4.5%	2013	27.3%	2013	19.3%	2013	30.9%	2013	24.2%	2010	7	2014
Portugal	17.0%	2013	9.6%	2013	38.1%	2013	17.0%	2013	48.8%	2013	16.1%	2010	5	2014
Romania	7.4%	2013	3.3%	2013	23.7%	2013	6.6%	2013	55.9%	2013	25.8%	2010	4	2014
Slovakia	14.3%	2013	10.0%	2013	33.7%	2013	40.0%	2013	32.4%	2013	19.0%	2010	5	2014
Slovenia	10.3%	2013	5.3%	2013	21.6%	2013	17.8%	2013	10.6%	2013	17.1%	2010	7	2014
Spain	26.2%	2013	13.0%	2013	55.5%	2013	32.7%	2013	63.3%	2013	14.7%	2010	5	2014
Sweden	8.2%	2013	1.5%	2013	23.5%	2013	13.4%	2013	29.7%	2013	2.5%	2010	9	2014
Switzerland	4.9%	2013	1.5%	2013	8.7%	2013	8.8%	2013	7.7%	2013	11.0%	2010	8	2014
Turkey	8.9%	2013	1.9%	2013	16.9%	2013	7.3%	2013	7.0%	2013	0.4%	2010	5	2014
United Kingdom	7.7%	2013	2.8%	2013	20.7%	2013	10.6%	2013	20.3%	2013	22.1%	2010	7	2014
United States	7.5%	2013	1.9%	2013	15.6%	2013	12.7%	2013	9.4%	2013	25.3%	2012	6	2014

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E:	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
32.6%	2012	7	2014	26.0%	2013	8	2014	13.9%	2013	-0.369	2013	7	2014	9	2014
27.0%	2013	6	2014	33.3%	2013	5	2014	9.4%	2013	0.603	2013	7	2014	6	2014
25.9%	2013	7	2014	38.0%	2013	6	2014	18.0%	2013	0.461	2013	8	2014	6	2014
35.4%	2013	6	2014	24.6%	2013	4	2014	26.3%	2013	-0.850	2013	6	2014	6	2014
32.0%	2013	8	2014	24.7%	2013	8	2014	13.9%	2013	-0.213	2013	7	2014	8	2014
46.5%	2013	5	2014	14.2%	2013	4	2014	21.1%	2013	-0.419	2013	5	2014	7	2014
30.9%	2013	5	2014	23.8%	2013	3	2014	27.2%	2013	0.154	2013	5	2014	4	2014
32.4%	2013	8	2014	10.7%	2013	4	2014	28.4%	2013	-0.100	2013	4	2014	4	2014
24.6%	2013	6	2014	19.5%	2013	5	2014	13.7%	2013	0.386	2013	6	2014	8	2014
26.8%	2013	8	2014	39.1%	2013	7	2014	8.7%	2013	0.082	2013	9	2014	9	2014
32.9%	2013	7	2014	20.8%	2013	7	2014	16.2%	2013	-0.608	2013	9	2014	7	2014
25.4%	2013	8	2014	42.5%	2013	8	2014	13.1%	2013	0.448	2013	9	2014	9	2014
30.1%	2013	6	2014	26.9%	2013	6	2014	16.0%	2013	0.608	2013	10	2014	5	2014
29.7%	2013	8	2014	36.5%	2013	8	2014	9.5%	2013	1.413	2013	7	2014	7	2014
34.4%	2013	4	2014	21.0%	2013	5	2014	31.3%	2013	0.337	2013	4	2014	4	2014
28.3%	2013	5	2014	8.8%	2013	5	2014	22.8%	2013	-0.306	2013	4	2014	4	2014
24.0%	2013	8	2014	39.7%	2013	6	2014	7.1%	2013	-0.073	2013	9	2014	7	2014
30.7%	2013	9	2014	15.7%	2013	7	2014	21.4%	2013	-0.244	2013	7	2014	6	2014
36.0%	2013	5	2014	22.5%	2013	6	2014	18.1%	2013	-0.164	2013	6	2014	7	2014
32.8%	2013	7	2014	31.4%	2013	5	2014	31.9%	2013	0.103	2013	4	2014	5	2014
33.0%	2012	5	2014	8.1%	2013	4	2014	11.1%	2013	0.659	2013	5	2014	5	2014
35.2%	2015	5	2014	15.7%	2013	5	2014	22.2%	2013	-0.041	2013	4	2014	6	2014
35.2%	2013	7	2014	23.0%	2013	5	2014	18.3%	2013	-0.559	2013	7	2014	5	2014
34.6%	2013	7	2014	24.1%	2013	7	2014	18.0%	2013	-0.560	2009	8	2014	7	2014
30.4%	2013	8	2014	23.3%	2013	8	2014	7.4%	2013	-0.159	2013	9	2014	7	2014
28.0%	2013	5	2014	14.3%	2013	3	2014	9.9%	2013	-0.252	2013	5	2014	5	2014
45.7%	2012	5	2014	36.8%	2013	4	2014	25.2%	2013	-0.487	2013	5	2014	5	2014
25.1%	2013	9	2014	38.7%	2013	8	2014	8.7%	2013	0.077	2013	9	2014	8	2014
33.3%	2012	9	2014	32.2%	2013	9	2014	15.6%	2013	-0.222	2013	8	2014	6	2014
22.7%	2013	9	2014	39.6%	2013	8	2014	8.6%	2013	0.081	2013	9	2014	9	2014
30.7%	2013	8	2014	23.7%	2013	5	2014	19.4%	2013	-0.174	2013	7	2014	7	2014
34.2%	2013	8	2014	28.7%	2013	7	2014	20.6%	2013	-0.289	2013	6	2014	4	2014
34.6%	2013	5	2014	13.3%	2013	6	2014	22.9%	2013	-0.800	2009	5	2014	4	2014
24.2%	2013	5	2014	18.7%	2013	5	2014	20.4%	2013	-0.007	2013	5	2014	5	2014
24.4%	2013	7	2014	32.2%	2013	4	2014	13.7%	2013	0.672	2013	8	2014	7	2014
33.7%	2013	7	2014	36.0%	2013	6	2014	26.3%	2013	0.018	2013	5	2014	6	2014
26.0%	2013	9	2014	44.7%	2013	7	2014	10.3%	2013	0.698	2013	10	2014	8	2014
28.5%	2013	8	2014	29.0%	2013	7	2014	9.1%	2013	0.821	2013	4	2014	10	2014
42.1%	2013	4	2014	14.4%	2013	4	2014	34.2%	2013	-0.388	2013	4	2014	5	2014
30.2%	2013	8	2014	22.5%	2013	7	2014	18.4%	2013	-0.131	2013	8	2014	8	2014
39.6%	2013	9	2014	17.9%	2013	7	2014	18.8%	2013	2.190	2013	8	2014	7	2014

# TABLE 10C SJI 2014 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E7	,	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	5	2014	23.78	2012	0.78%	2008	1.47%	2008	30.68%	2013	75	2013	8.1%	2010
Austria	6	2014	9.47	2012	0.95%	2011	1.72%	2011	81.01%	2013	259	2013	30.7%	2010
Belgium	6	2014	10.75	2012	0.50%	2011	1.66%	2011	105.45%	2013	262	2013	5.8%	2010
Bulgaria	6	2014	8.32	2012	0.21%	2011	0.32%	2011	17.25%	2013	22	2013	14.4%	2010
Canada	5	2014	20.48	2012	0.60%	2011	1.19%	2011	86.21%	2013	235	2013	22.1%	2010
Chile	4	2014	6.13	2012	0.12%	2011	0.23%	2011	12.73%	2013	13	2013	27.0%	2010
Croatia	5	2014	6.07	2012	0.36%	2011	0.39%	2011	81.63%	2013	113	2013	29.8%	2010
Cyprus	4	2014	7.54	2012	0.32%	2011	0.14%	2011	102.08%	2013	200	2013	6.4%	2010
Czechia	7	2014	12.72	2012	0.65%	2011	0.91%	2011	44.91%	2013	88	2013	10.9%	2010
Denmark	8	2014	9.72	2012	0.83%	2011	2.11%	2011	44.05%	2013	114	2013	21.4%	2010
Estonia	9	2014	15.25	2012	0.76%	2011	1.55%	2011	10.16%	2013	17	2013	25.1%	2010
Finland	7	2014	11.53	2012	0.91%	2011	2.73%	2011	56.46%	2013	140	2013	33.6%	2010
France	6	2014	7.48	2012	0.77%	2011	1.42%	2011	93.41%	2013	195	2013	11.9%	2010
Germany	8	2014	11.50	2012	0.84%	2011	1.96%	2011	77.42%	2013	264	2013	10.3%	2010
Greece	4	2014	10.15	2012	0.33%	2011	0.34%	2011	177.95%	2013	306	2013	11.1%	2010
Hungary	6	2014	6.01	2012	0.45%	2011	0.74%	2011	77.15%	2013	129	2013	13.5%	2010
Iceland	6	2014	14.35	2012	0.97%	2011	1.44%	2011	81.79%	2013	177	2013	75.4%	2010
Ireland	7	2014	12.53	2012	0.46%	2011	1.10%	2011	119.81%	2013	263	2013	5.3%	2010
Israel	7	2014	10.78	2012	0.52%	2011	3.49%	2011	67.05%	2013	79	2013	8.5%	2010
Italy	4	2014	7.94	2012	0.51%	2011	0.70%	2011	129.02%	2013	326	2013	12.8%	2010
Japan	6	2014	10.94	2012	0.53%	2011	2.71%	2011	232.47%	2013	681	2013	4.6%	2010
Korea	5	2014	13.66	2012	0.93%	2011	2.81%	2011	35.39%	2013	82	2013	1.3%	2010
Latvia	9	2014	5.57	2012	0.16%	2011	0.54%	2011	39.03%	2013	61	2013	33.1%	2010
Lithuania	8	2014	7.11	2012	0.38%	2011	0.52%	2011	38.76%	2013	68	2013	21.5%	2010
Luxembourg	6	2014	22.19	2012	0.49%	2011	0.97%	2011	23.69%	2013	133	2013	3.7%	2010
Malta	4	2014	7.59	2012	0.20%	2011	0.47%	2011	68.36%	2013	152	2013	1.4%	2010
Mexico	4	2014	5.62	2012	0.32%	2011	0.19%	2011	45.90%	2013	28	2013	9.4%	2010
Netherlands	5	2014	11.66	2012	0.64%	2011	1.24%	2011	67.67%	2013	188	2013	3.9%	2010
New Zealand	6	2014	18.39	2012	0.51%	2011	0.72%	2011	34.60%	2013	59	2013	31.3%	2010
Norway	8	2014	10.78	2012	0.76%	2011	0.87%	2011	30.35%	2013	110	2013	56.4%	2010
Poland	6	2014	10.60	2012	0.42%	2011	0.33%	2011	55.69%	2013	89	2013	9.5%	2010
Portugal	5	2014	6.23	2012	0.61%	2011	0.85%	2011	129.04%	2013	230	2013	27.8%	2010
Romania	5	2014	6.28	2012	0.24%	2011	0.26%	2011	39.03%	2013	47	2013	24.1%	2010
Slovakia	5	2014	7.96	2012	0.33%	2011	0.33%	2011	54.74%	2013	98	2013	10.3%	2010
Slovenia	7	2014	9.27	2012	0.76%	2011	1.66%	2011	70.38%	2013	139	2013	19.5%	2010
Spain	4	2014	7.50	2012	0.59%	2011	0.74%	2011	95.45%	2013	202	2013	14.4%	2010
Sweden	8	2014	5.97	2012	0.89%	2011	2.36%	2011	40.73%	2013	110	2013	46.0%	2010
Switzerland	9	2014	6.43	2012	0.62%	2008	2.09%	2008	42.92%	2013	164	2013	21.5%	2010
Turkey	4	2014	5.99	2012	0.23%	2011	0.57%	2011	31.38%	2013	28	2013	14.3%	2010
United Kingdom	8	2014	9.16	2012	0.51%	2011	1.15%	2011	85.15%	2013	191	2013	3.6%	2010
United States	6	2014	20.86	2012	0.86%	2011	1.90%	2011	104.76%	2013	284	2013	7.5%	2010

E1(	0	E1:	1	E1:	2	F1		F2	2	F3		F4		F5		F6	5
VALUE				VALUE	DATE					VALUE	DATE	VALUE	DATE	VALUE		VALUE	
21.5	2013	41.25	2012	5.17	2011	8	2014	3.6	2012	72.2	2010	0.89	2011	19.9%	2012	3.32	2011
27.5	2013	30.00	2012	-3.48	2011	8	2014	3.3	2012	71.4	2010	0.74	2013	18.7%	2012	4.84	2011
27.3	2013	21.95	2012	-6.04	2011	8	2014	3.5	2012	70.8	2010	0.67	2013	17.3%	2012	2.92	2011
28.8	2013	10.92	2012	-0.52	2011	4	2014	8.3	2012	65.7	2010	0.65	2013	47.7%	2012	3.99	2014
22.3	2013	33.91	2012	7.08	2011	8	2014	4.8	2012	72.2	2010	0.83	2013	14.6%	2012	2.35	2011
14.4	2013	15.53	2012	-0.70	2011	7	2014	7.2	2012	68.9	2010	0.78	2013	33.4%	2012	1.03	2009
27.4	2013	11.66	2012	-1.19	2011	5	2014	4.5	2012	67.9	2010	0.58	2013	12.8%	2013	2.92	2011
17.3	2013	23.05	2012	-4.34	2011	7	2014	2.7	2012	72.4	2010	0.77	2013	44.0%	2012	2.50	2014
24.8	2013	16.12	2012	-3.56	2011	8	2014	2.5	2012	68.1	2010	0.62	2013	15.3%	2012	3.64	2011
27.9	2013	23.80	2012	-2.80	2011	8	2014	3.5	2012	70.4	2010	0.82	2013	14.2%	2012	3.63	2011
27.7	2013	25.09	2012	3.42	2011	8	2014	3.1	2012	66.7	2010	0.49	2013	21.5%	2012	4.43	2011
29.5	2013	34.94	2012	6.86	2011	8	2014	2.3	2012	70.4	2010	0.63	2013	18.7%	2012	3.26	2011
28.3	2013	20.92	2012	-2.41	2011	7	2014	3.4	2012	72.2	2010	0.84	2013	10.1%	2012	3.30	2011
31.7	2013	20.86	2012	-3.70	2011	8	2014	3.3	2012	70.9	2010	0.66	2013	13.9%	2012	3.88	2011
29.2	2013	28.15	2012	-3.30	2011	3	2014	3.3	2012	71.5	2010	0.93	2013	30.1%	2012	6.25	2011
24.5	2013	12.49	2012	-1.13	2011	4	2014	4.8	2012	65.6	2010	0.75	2013	29.4%	2012	2.96	2011
19.4	2013	30.89	2012	-4.84	2011	7	2014	1.9	2012	72.6	2010	0.86	2012	18.6%	2012	3.50	2011
18.7	2013	21.91	2012	-1.38	2011	5	2014	3.4	2012	71.5	2010	0.85	2013	13.6%	2012	4.10	2011
17.6	2013	21.77	2012	-5.71	2011	8	2014	3.4	2012	72.4	2010	0.88	2013	23.3%	2012	3.26	2011
33.4	2013	19.43	2012	-4.17	2011	7	2014	3.2	2012	72.8	2010	0.86	2013	21.7%	2012	6.40	2011
39.6	2013	25.33	2012	-4.15	2011	7	2014	2.2	2012	73.8	2010	0.71	2013	13.0%	2012	2.21	2010
16.4	2013	24.56	2012	-5.27	2011	8	2014	3.3	2012	71.4	2010	0.74	2013	35.0%	2012	2.03	2011
28.4	2013	18.19	2012	2.16	2011	4	2014	5.7	2012	64.6	2010	0.59	2013	37.8%	2012	3.13	2011
26.9	2013	29.63	2012	-1.10	2011	8	2014	4.2	2012	64.5	2010	0.59	2013	31.8%	2012	4.40	2011
20.2	2013	101.43	2012	-13.77	2011	8	2014	2.3	2012	71.7	2010	0.86	2013	10.4%	2012	2.78	2011
25.2	2013	24.85	2012	-4.72	2011	7	2014	5.8	2012	71.6	2010	0.76	2013	36.8%	2014	3.17	2011
9.5	2013	8.36	2012	-1.56	2011	5	2014	14.1	2012	66.5	2010	0.81	2013	42.6%	2012	2.10	2011
25.7	2013	25.50	2012	-5.53	2011	7	2014	3.6	2012	71.4	2010	0.79	2013	10.4%	2012	3.13	2011
21.2	2013	22.29	2012	4.08	2011	8	2014	5.0	2012	72.0	2010	0.93	2013	12.3%	2012	2.65	2011
23.8	2013	35.91	2012	1.32	2011	7	2014	2.4	2012	71.8	2010	0.80	2013	14.8%	2012	4.19	2011
20.7	2013	16.06	2012	-2.84		5	2014	4.6	2012	67.3	2010	0.78	2013	24.3%	2012	2.21	2011
30.3	2013	16.78	2012	-2.80	2011	6	2014	3.0			2010	0.66	2013	28.2%		3.98	2011
24.0		12.09		-0.45	2011	4		9.4		65.2	2010	1.00	2013	22.4%	2012	2.54	2011
	2013		2012		2011	5	2014	5.5		66.8		0.79	2013	23.2%			2011
	2013		2012	-2.84		6	2014	2.3	2012	69.2	2010	0.68	2013	12.5%	2012	2.49	2011
	2013		2012		2011	6			2012		2010	0.84	2013	22.8%	2012	3.84	
	2013		2012		2011	8	2014	2.5		71.9		0.78	2013	15.4%	2012	3.96	2011
	2013		2012		2011	9			2012	72.5			2013	28.8%			2011
	2013		2012		2011	6	2014	14.3		64.4		0.79		15.9%	2012		2011
	2013		2012		2011		2014		2012	71.3		0.73	2013	9.7%	2012		2011
20.9	2013	30.38	2012	-4.99	2011	7	2014	6.1	2012	68.7	2010	0.76	2013	12.0%	2012	2.46	2011

# TABLE 11A SJI 2015 Raw Data

COUNTRY	А	1	A	2	A	3	В	1	B	2	В	3	B	4
	VALUE	DATE												
Australia	12.8%	2014	13.0%	2014	25.7%	2014	6	2015	4.98	2012	0.12%	2012	22.9%	2014
Austria	8.2%	2014	9.4%	2014	8.4%	2014	5	2015	6.42	2012	0.47%	2012	16.1%	2014
Belgium	8.6%	2014	10.8%	2014	6.5%	2014	6	2015	6.30	2012	0.68%	2012	26.4%	2014
Bulgaria	15.9%	2014	26.8%	2014	11.9%	2014	4	2015	11.52	2012	0.89%	2012	18.9%	2014
Canada	12.6%	2014	15.0%	2014	9.0%	2014	8	2015	2.41	2012	0.42%	2011	10.0%	2014
Chile	16.8%	2013	22.5%	2013	15.0%	2013	4	2015	6.37	2012	0.64%	2012	38.6%	2013
Croatia	13.4%	2014	15.2%	2014	14.3%	2014	6	2015	3.75	2012	0.66%	2011	17.3%	2014
Cyprus	7.8%	2014	7.5%	2014	8.8%	2014	7	2015	2.83	2012	0.38%	2012	22.4%	2014
Czechia	5.2%	2014	8.7%	2014	1.8%	2014	6	2015	6.76	2012	0.54%	2012	6.8%	2014
Denmark	6.6%	2014	3.3%	2014	2.8%	2014	6	2015	5.99	2012	1.25%	2012	20.4%	2014
Estonia	13.0%	2014	14.5%	2014	8.0%	2014	9	2015	1.76	2012	0.43%	2012	11.8%	2014
Finland	5.5%	2014	3.7%	2014	3.8%	2014	9	2015	2.47	2012	0.78%	2012	13.5%	2014
France	6.7%	2014	8.9%	2014	2.9%	2014	6	2015	10.90	2012	0.65%	2012	23.3%	2014
Germany	10.5%	2014	8.2%	2014	9.1%	2014	7	2015	5.61	2012	0.43%	2012	13.1%	2014
Greece	15.8%	2014	19.8%	2014	7.8%	2014	4	2015	4.06	2012	0.24%	2012	31.6%	2014
Hungary	9.2%	2014	16.6%	2014	1.9%	2014	3	2015	8.47	2012	0.65%	2012	16.9%	2014
Iceland	3.9%	2014	5.1%	2014	1.5%	2014	6	2015	1.87	2012	0.93%	2012	26.4%	2014
Ireland	8.8%	2014	9.0%	2014	7.4%	2014	6	2015	5.89	2012	0.11%	2012	19.7%	2014
Israel	18.6%	2014	24.3%	2014	22.6%	2014	6	2015	4.96	2012	0.55%	2012	14.7%	2014
Italy	12.7%	2014	17.3%	2014	6.1%	2014	4	2015	2.98	2012	0.45%	2012	40.7%	2014
Japan	16.1%	2012	16.3%	2012	19.0%	2012	6	2015	2.99	2012	0.10%	2012	19.7%	2010
Korea	17.5%	2015	16.0%	2015	44.3%	2015	8	2015	2.57	2012	0.03%	1999	15.0%	2014
Latvia	13.2%	2014	17.0%	2014	10.1%	2014	5	2015	5.00	2012	1.13%	2012	10.5%	2014
Lithuania	11.3%	2014	13.5%	2014	8.3%	2014	7	2015	3.56	2012	0.63%	2012	6.7%	2014
Luxembourg	8.1%	2014	12.0%	2014	2.7%	2014	4	2015	5.82	2012	0.65%	2012	18.0%	2014
Malta	8.3%	2014	15.1%	2014	5.8%	2014	5	2015	5.30	2015	0.46%	2012	55.9%	2014
Mexico	16.7%	2014	19.7%	2014	25.6%	2014	5	2015	2.27	2012	0.53%	2011	64.9%	2014
Netherlands	5.9%	2014	5.4%	2014	2.8%	2014	6	2015	4.17	2012	0.41%	2012	24.1%	2014
New Zealand	10.9%	2014	14.1%	2014	10.6%	2014	9	2015	8.51	2012	0.49%	2012	25.9%	2014
Norway	6.2%	2014	4.8%	2014	2.1%	2014	6	2015	2.07	2012	0.73%	2012	17.3%	2014
Poland	10.7%	2014	14.2%	2014	5.5%	2014	7	2015	4.77	2012	0.56%	2012	9.5%	2014
Portugal	13.8%	2014	19.1%	2014	8.7%	2014	4	2015	5.18	2012	0.39%	2012	56.7%	2014
Romania	19.1%	2014	31.4%	2014	9.2%	2014	4	2015	6.33	2012	0.29%	2012	27.2%	2014
Slovakia	8.4%	2014	13.6%	2014	1.8%	2014	4	2015	13.39	2012	0.42%	2012	9.0%	2014
Slovenia	9.1%	2014	10.0%	2014	9.1%	2014	7	2015	5.62	2012	0.68%	2012	14.3%	2014
Spain	15.9%	2014	22.8%	2014	5.3%	2014	5	2015	3.92	2012	0.50%	2012	43.4%	2014
Sweden	9.2%	2014	11.4%	2014	3.8%	2014	6	2015	3.45	2012	1.29%	2012	16.3%	2014
Switzerland	7.8%	2014	6.5%	2014	16.4%	2014	8	2015	5.22	2012	0.18%	2012	12.8%	2014
Turkey	16.0%	2014	24.0%	2014	14.4%	2014	5	2015	4.30	2012	0.17%	2011	67.4%	2014
United Kingdom	9.5%	2014	10.1%	2014	9.8%	2014	7	2015	4.75	2012	0.33%	2012	20.8%	2014
United States	17.5%	2014	20.2%	2014	21.0%	2014	7	2015	4.20	2012	0.32%	2013	10.4%	2014

В	5	В	6	В	7	с	1	C	2	с	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.134	2012	9.1%	2012	4.27	2012	71.6%	2014	61.4%	2014	-0.04	2014	-0.03	2014	0.86	2014
0.683	2014	10.7%	2012	5.24	2012	71.1%	2014	45.1%	2014	-0.11	2014	1.15	2014	0.89	2014
-0.083	2014	11.5%	2012	6.20	2012	61.9%	2014	42.7%	2014	-0.17	2014	1.55	2014	0.88	2014
-0.071	2014	28.6%	2012	3.70	2012	61.0%	2014	50.0%	2014	-0.05	2014	0.30	2012	0.91	2014
-0.210	2012	6.2%	2012	4.18	2012	72.3%	2014	60.4%	2014	-0.04	2014	0.18	2014	0.92	2014
0.026	2012	24.6%	2012	3.02	2012	62.2%	2014	64.2%	2014	0.28	2013	-0.48	2013	0.71	2014
0.444	2014	11.7%	2012	2.99	2012	54.6%	2014	36.2%	2014	-0.03	2014	0.16	2014	0.85	2014
-0.009	2014	26.1%	2015	2.34	2015	62.1%	2014	46.9%	2014	0.13	2014	-0.14	2014	0.89	2014
0.833	2014	8.9%	2012	4.55	2012	69.0%	2014	54.0%	2014	0.04	2014	0.13	2014	0.79	2014
-0.111	2014	9.3%	2012	5.28	2012	72.8%	2014	63.2%	2014	-0.14	2014	1.05	2014	0.92	2014
-0.513	2014	3.2%	2012	4.87	2012	69.6%	2014	64.0%	2014	-0.03	2014	0.27	2014	0.91	2014
-0.329	2014	5.3%	2012	4.36	2012	68.7%	2014	59.1%	2014	-0.12	2014	1.02	2014	0.98	2014
0.090	2014	12.7%	2012	8.66	2012	63.7%	2014	46.9%	2014	-0.13	2014	0.75	2014	0.90	2014
0.319	2014	8.8%	2012	5.24	2012	73.8%	2014	65.6%	2014	-0.09	2014	0.76	2014	0.89	2014
-0.088	2014	15.7%	2012	3.20	2012	49.4%	2014	34.0%	2014	0.02	2014	0.34	2014	0.71	2014
0.268	2014	13.1%	2012	6.26	2012	61.8%	2014	41.7%	2014	0.14	2014	-0.23	2014	0.82	2014
0.075	2014	13.6%	2012	2.82	2012	82.9%	2014	84.8%	2014	-0.01	2014	0.60	2014	0.94	2014
-0.260	2014	6.8%	2012	6.24	2012	63.1%	2014	52.6%	2014	0.00	2014	0.18	2014	0.85	2014
-0.096	2012	18.5%	2012	3.87	2012	67.9%	2014	65.1%	2014	0.19	2014	-0.27	2014	0.90	2014
-0.080	2014	11.9%	2012	3.08	2012	55.7%	2014	46.2%	2014	0.06	2014	0.33	2014	0.72	2014
0.145	2010	5.5%	2012	4.20	2012	72.7%	2014	68.7%	2014	-0.07	2013	0.29	2013	0.78	2014
0.627	2012	4.4%	2012	3.12	2012	65.6%	2014	65.8%	2014	0.16	2013	0.29	2013	0.72	2014
-0.479	2014	8.3%	2012	4.41	2012	66.3%	2014	56.4%	2014	-0.03	2014	0.01	2014	0.94	2014
-0.361	2014	12.1%	2012	3.76	2012	65.7%	2014	56.2%	2014	0.06	2014	-0.06	2014	0.98	2014
0.270	2014	14.4%	2012	5.31	2012	66.6%	2014	42.5%	2014	0.17	2014	0.64	2014	0.83	2014
0.014	2014	21.9%	2015	3.03	2015	63.9%	2014	39.5%	2014	0.20	2014	-0.07	2014	0.68	2014
0.049	2012	31.0%	2012	1.93	2012	60.4%	2014	55.0%	2014	-0.12	2014	0.36	2014	0.57	2014
0.105	2014	8.6%	2012	4.16	2012	73.1%	2014	59.9%	2014	-0.18	2014	0.93	2014	0.87	2014
0.043	2012	11.1%	2012	5.15	2012	74.2%	2014	76.2%	2014	-0.04	2014	0.07	2014	0.87	2014
-0.067	2014	11.0%	2012	2.87	2012	75.2%	2014	72.2%	2014	-0.08	2014	1.76	2014	0.95	2014
-0.021	2014	5.7%	2012	6.97	2012	61.7%	2014	42.5%	2014	0.02	2014	0.33	2014	0.81	2014
-0.142	2014	12.6%	2012	5.97	2012	62.6%	2014	47.8%	2014	0.07	2014	0.19	2014	0.91	2014
0.224	2014	24.0%	2012	3.63	2012	61.0%	2014	43.1%	2014	-0.10	2014	0.12	2012	0.78	2014
0.351	2014	18.8%	2012	5.48	2012	61.0%	2014	44.8%	2014	0.09	2014	-0.25	2013	0.80	2014
0.225	2014	9.9%	2012	4.91	2012	63.9%	2014	35.4%	2014	-0.10	2014	0.35	2014	0.89	2014
-0.080	2014	10.4%	2012	4.80	2012	56.0%	2014	44.3%	2014	-0.08	2014	0.46	2014	0.84	2014
-0.110	2014	15.0%	2012	2.91	2012	74.9%	2014	74.0%	2014	-0.18	2014	1.65	2014	0.96	2014
0.297	2014	7.5%	2012	4.91	2012	78.8%	2014	69.2%	2014	-0.07	2014	1.34	2014	0.89	2014
0.201	2014	15.6%	2012	2.50	2012	49.5%	2014	31.4%	2014	-0.07	2014	0.26	2014	0.42	2014
0.122	2014	11.2%	2012	3.80	2012	71.9%	2014	61.0%	2014	-0.04	2014	0.16	2014	0.87	2014
-0.143	2012	12.2%	2012	4.33	2012	68.2%	2014	61.4%	2014	0.04	2014	-0.11	2014	0.86	2014

# TABLE 11B SJI 2015 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	6.2%	2014	1.2%	2014	13.3%	2014	7.9%	2014	28.2%	2014	15.9%	2013	5	2015
Austria	5.7%	2014	1.6%	2014	10.3%	2014	10.8%	2014	11.5%	2014	15.0%	2010	7	2015
Belgium	8.6%	2014	4.3%	2014	23.2%	2014	14.3%	2014	10.1%	2014	6.4%	2010	7	2015
Bulgaria	11.5%	2014	6.9%	2014	23.8%	2014	27.5%	2014	63.2%	2014	22.0%	2010	4	2015
Canada	7.0%	2014	0.9%	2014	13.5%	2014	10.6%	2014	27.3%	2014	21.0%	2013	7	2015
Chile	6.6%	2014	0.6%	2014	16.5%	2014	5.2%	2013	49.5%	2014	11.5%	2013	4	2015
Croatia	17.5%	2014	10.2%	2014	45.5%	2014	24.4%	2014	25.5%	2014	21.4%	2010	4	2015
Cyprus	16.3%	2014	7.8%	2014	36.0%	2014	19.4%	2014	64.9%	2014	22.6%	2010	7	2015
Czechia	6.2%	2014	2.7%	2014	15.9%	2014	20.7%	2014	21.1%	2014	18.2%	2010	6	2015
Denmark	6.8%	2014	1.7%	2014	12.6%	2014	8.4%	2014	16.9%	2014	8.2%	2010	8	2015
Estonia	7.5%	2014	3.4%	2014	15.0%	2014	11.7%	2014	15.1%	2014	23.8%	2010	6	2015
Finland	8.8%	2014	2.0%	2014	20.5%	2014	12.5%	2014	29.0%	2014	5.9%	2010	8	2015
France	10.3%	2014	4.6%	2014	24.2%	2014	14.8%	2014	42.4%	2014	6.1%	2010	7	2015
Germany	5.1%	2014	2.3%	2014	7.7%	2014	12.0%	2014	14.5%	2014	22.2%	2010	7	2015
Greece	26.7%	2014	19.6%	2014	52.4%	2014	27.6%	2014	71.2%	2014	12.8%	2010	3	2015
Hungary	7.8%	2014	3.7%	2014	20.4%	2014	16.7%	2014	41.1%	2014	19.5%	2010	4	2015
Iceland	5.1%	2014	0.6%	2014	9.8%	2014	4.7%	2014	19.7%	2014	9.0%	2010	7	2015
Ireland	12.1%	2014	6.8%	2014	23.4%	2014	18.8%	2014	40.7%	2014	20.7%	2010	6	2015
Israel	6.0%	2014	0.6%	2014	10.6%	2014	7.5%	2014	14.0%	2014	22.2%	2013	4	2015
Italy	12.9%	2014	7.9%	2014	42.7%	2014	15.2%	2014	65.4%	2014	12.4%	2010	4	2015
Japan	3.8%	2014	1.4%	2014	6.3%	2014	0.0%	2013	21.1%	2014	14.2%	2013	6	2015
Korea	3.6%	2014	0.0%	2014	10.0%	2014	2.7%	2014	14.8%	2014	24.7%	2013	6	2015
Latvia	11.1%	2014	4.8%	2014	19.6%	2014	23.6%	2014	38.1%	2014	27.8%	2010	5	2015
Lithuania	10.9%	2014	4.9%	2014	19.3%	2014	28.6%	2014	31.3%	2014	27.2%	2010	6	2015
Luxembourg	5.9%	2014	1.6%	2014	22.6%	2014	7.7%	2014	12.9%	2014	13.1%	2010	9	2015
Malta	5.8%	2014	2.8%	2014	11.7%	2014	7.8%	2014	15.3%	2014	17.6%	2010	6	2015
Mexico	5.0%	2014	0.1%	2014	9.5%	2014	3.5%	2014	15.8%	2014	14.2%	2013	3	2015
Netherlands	7.5%	2014	3.0%	2014	12.7%	2014	10.1%	2014	10.9%	2014	17.5%	2010	8	2015
New Zealand	6.0%	2014	0.8%	2014	15.0%	2014	5.2%	2014	21.8%	2014	14.1%	2013	7	2015
Norway	3.6%	2014	0.8%	2014	7.9%	2014	6.3%	2014	20.3%	2014	7.3%	2010	9	2015
Poland	9.1%	2014	3.9%	2014	23.9%	2014	18.0%	2014	32.3%	2014	24.2%	2010	7	2015
Portugal	14.5%	2014	8.6%	2014	34.8%	2014	14.8%	2014	49.3%	2014	16.1%	2010	4	2015
Romania	7.1%	2014	2.9%	2014	24.0%	2014	6.4%	2014	56.9%	2014	25.8%	2010	4	2015
Slovakia	13.2%	2014	9.3%	2014	29.7%	2014	39.3%	2014	33.4%	2014	19.0%	2010	5	2015
Slovenia	9.9%	2014	5.4%	2014	20.2%	2014	15.5%	2014	9.6%	2014	17.1%	2010	7	2015
Spain	24.6%	2014	13.0%	2014	53.2%	2014	31.4%	2014	64.0%	2014	14.7%	2010	4	2015
Sweden	8.1%	2014	1.5%	2014	22.9%	2014	13.9%	2014	29.8%	2014	2.5%	2010	8	2015
Switzerland	5.0%	2014	1.8%	2014	8.6%	2014	9.2%	2014	8.1%	2014	11.0%	2010	8	2015
Turkey	10.1%	2014	2.1%	2014	17.8%	2014	8.4%	2014	8.5%	2014	0.4%	2010	5	2015
United Kingdom	6.3%	2014	2.3%	2014	17.0%	2014	8.4%	2014	18.8%	2014	22.1%	2010	7	2015
United States	6.3%	2014	1.4%	2014	13.4%	2014	10.6%	2014	9.3%	2014	25.1%	2013	6	2015

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
33.7%	2014	7	2015	26.0%	2014	8	2015	13.3%	2014	-0.369	2013	7	2015	8	2015
27.6%	2014	6	2015	32.2%	2014	7	2015	9.6%	2014	0.602	2014	7	2015	6	2015
25.9%	2014	7	2015	39.3%	2014	6	2015	17.0%	2014	0.480	2014	8	2015	6	2015
35.4%	2014	6	2015	20.0%	2014	3	2015	24.8%	2014	-0.830	2014	6	2015	5	2015
31.3%	2014	8	2015	25.1%	2014	9	2015	14.8%	2014	-0.213	2013	7	2015	8	2015
46.5%	2013	5	2015	15.8%	2014	4	2015	21.1%	2013	-0.419	2013	5	2015	6	2015
30.2%	2014	5	2015	23.8%	2014	3	2015	26.1%	2014	0.077	2014	5	2015	5	2015
34.8%	2014	8	2015	12.5%	2014	4	2015	25.2%	2014	0.031	2014	4	2015	5	2015
25.1%	2014	6	2015	19.5%	2014	5	2015	11.8%	2014	0.311	2014	6	2015	8	2015
27.7%	2014	8	2015	39.1%	2014	7	2015	8.4%	2014	-0.039	2014	9	2015	9	2015
35.6%	2014	8	2015	19.0%	2014	7	2015	15.4%	2014	-0.593	2014	9	2015	7	2015
25.6%	2014	8	2015	42.5%	2014	8	2015	14.6%	2014	0.668	2014	9	2015	9	2015
29.2%	2014	6	2015	26.2%	2014	6	2015	16.2%	2014	0.622	2014	10	2015	5	2015
30.7%	2014	8	2015	36.5%	2014	8	2015	9.5%	2014	1.066	2014	7	2015	5	2015
34.5%	2014	5	2015	21.0%	2014	6	2015	28.4%	2014	0.400	2014	5	2015	4	2015
28.6%	2014	5	2015	10.1%	2014	5	2015	19.3%	2014	-0.489	2014	4	2015	4	2015
22.7%	2014	7	2015	39.7%	2014	6	2015	7.3%	2014	0.084	2014	9	2015	7	2015
31.1%	2014	9	2015	15.7%	2014	7	2015	19.6%	2014	-0.485	2014	6	2015	6	2015
36.5%	2014	5	2015	22.5%	2014	6	2015	18.6%	2014	-0.164	2013	6	2015	7	2015
32.4%	2014	7	2015	31.4%	2014	5	2015	32.0%	2014	0.130	2014	4	2015	5	2015
33.0%	2012	5	2015	8.1%	2014	4	2015	10.1%	2014	0.659	2013	5	2015	5	2015
35.2%	2015	5	2015	16.3%	2014	5	2015	22.2%	2013	-0.041	2013	5	2015	6	2015
35.5%	2014	7	2015	18.0%	2014	5	2015	17.7%	2014	-0.526	2014	7	2015	4	2015
35.0%	2014	7	2015	24.1%	2014	7	2015	15.7%	2014	-0.560	2009	6	2015	7	2015
28.7%	2014	8	2015	28.3%	2014	8	2015	10.2%	2014	-0.207	2014	9	2015	7	2015
27.7%	2014	5	2015	14.3%	2014	3	2015	10.1%	2014	-0.288	2014	6	2015	5	2015
45.9%	2014	5	2015	37.4%	2014	3	2015	24.9%	2014	-0.487	2013	5	2015	5	2015
26.2%	2014	9	2015	38.7%	2014	8	2015	8.7%	2014	0.184	2014	8	2015	9	2015
34.9%	2014	9	2015	29.8%	2014	9	2015	14.5%	2014	-0.222	2013	8	2015	6	2015
23.5%	2014	9	2015	39.6%	2014	8	2015	8.6%	2014	0.158	2014	9	2015	9	2015
30.8%	2014	8	2015	24.3%	2014	5	2015	18.8%	2014	-0.442	2014	7	2015	7	2015
34.5%	2014	7	2015	31.3%	2014	7	2015	19.0%	2014	-0.307	2014	6	2015	4	2015
35.0%	2014	5	2015	13.5%	2014	6	2015	23.1%	2014	-0.800	2009	5	2015	4	2015
26.1%	2014	5	2015	18.7%	2014	5	2015	18.5%	2014	-0.026	2014	5	2015	5	2015
25.0%	2014	7	2015	35.6%	2014	4	2015	13.8%	2014	0.776	2014	8	2015	7	2015
34.7%	2014	7	2015	39.7%	2014	6	2015	24.8%	2014	0.007	2014	5	2015	6	2015
26.9%	2014	9	2015	44.7%	2014	7	2015	9.8%	2014	0.791	2014	10	2015	8	2015
29.5%	2014	8	2015	31.0%	2014	7	2015	9.5%	2014	0.755	2014	4	2015	10	2015
41.2%	2014	5	2015	14.4%	2014	4	2015	33.4%	2014	-0.260	2014	4	2015	5	2015
31.6%	2014	8	2015	22.6%	2014	7	2015	16.5%	2014	-0.172	2014	8	2015	8	2015
39.4%	2014	9	2015	19.3%	2014	7	2015	17.5%	2014	2.190	2013	8	2015	7	2015

# TABLE 11C SJI 2015 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E7	,	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	4	2015	22.93	2013	0.78%	2008	1.47%	2008	34.09%	2014	86	2014	8.3%	2011
Austria	6	2015	9.48	2013	1.10%	2012	1.81%	2012	83.76%	2014	275	2014	31.0%	2011
Belgium	6	2015	10.69	2013	0.56%	2012	1.71%	2012	107.57%	2014	275	2014	6.6%	2011
Bulgaria	6	2015	7.64	2013	0.19%	2012	0.41%	2012	26.39%	2014	35	2014	13.3%	2011
Canada	5	2015	20.58	2013	0.61%	2012	1.17%	2012	85.70%	2014	244	2014	22.0%	2011
Chile	5	2015	6.25	2013	0.13%	2012	0.23%	2012	14.96%	2014	16	2014	28.8%	2011
Croatia	5	2015	5.77	2013	0.34%	2012	0.41%	2012	85.71%	2014	123	2014	27.2%	2011
Cyprus	4	2015	6.86	2013	0.28%	2012	0.16%	2012	107.97%	2014	217	2014	7.4%	2011
Czechia	7	2015	12.24	2013	0.66%	2012	1.12%	2012	42.17%	2014	86	2014	12.1%	2011
Denmark	9	2015	9.98	2013	0.87%	2012	2.11%	2012	44.27%	2014	119	2014	23.9%	2011
Estonia	9	2015	16.65	2013	0.81%	2012	1.31%	2012	10.51%	2014	19	2014	25.0%	2011
Finland	8	2015	11.56	2013	0.91%	2012	2.51%	2012	60.20%	2014	150	2014	35.3%	2011
France	6	2015	7.44	2013	0.79%	2012	1.44%	2012	94.89%	2014	202	2014	10.9%	2011
Germany	8	2015	11.68	2013	0.84%	2012	2.03%	2012	74.51%	2014	266	2014	11.4%	2011
Greece	4	2015	9.35	2013	0.35%	2012	0.35%	2012	180.21%	2014	321	2014	11.1%	2011
Hungary	6	2015	5.74	2013	0.47%	2012	0.79%	2012	76.65%	2014	136	2014	14.7%	2011
Iceland	6	2015	14.20	2013	0.97%	2011	1.44%	2011	78.77%	2014	177	2014	76.5%	2011
Ireland	7	2015	12.42	2013	0.43%	2012	1.13%	2012	104.25%	2014	252	2014	6.7%	2011
Israel	7	2015	9.84	2013	0.53%	2012	3.63%	2012	65.76%	2014	80	2014	9.0%	2011
Italy	4	2015	7.35	2013	0.54%	2012	0.73%	2012	131.79%	2014	336	2014	11.9%	2011
Japan	6	2015	11.05	2013	0.54%	2012	2.67%	2012	236.07%	2014	713	2014	4.7%	2011
Korea	5	2015	13.79	2013	0.96%	2012	3.07%	2012	37.31%	2014	93	2014	1.4%	2011
Latvia	9	2015	5.59	2013	0.16%	2012	0.50%	2012	40.94%	2014	66	2014	35.5%	2011
Lithuania	8	2015	6.74	2013	0.36%	2012	0.53%	2012	40.54%	2014	76	2014	22.7%	2011
Luxembourg	6	2015	20.68	2013	0.57%	2012	0.70%	2012	22.74%	2014	133	2014	3.7%	2011
Malta	4	2015	6.71	2013	0.27%	2012	0.56%	2012	63.37%	2014	155	2014	2.0%	2011
Mexico	4	2015	5.63	2013	0.33%	2012	0.16%	2012	48.88%	2014	32	2014	9.1%	2011
Netherlands	5	2015	11.60	2013	0.62%	2012	1.30%	2012	67.86%	2014	197	2014	4.7%	2011
New Zealand	6	2015	18.13	2013	0.51%	2011	0.72%	2011	34.25%	2014	61	2014	32.1%	2011
Norway	8	2015	10.63	2013	0.76%	2011	0.87%	2011	28.40%	2014	106	2014	56.5%	2011
Poland	6	2015	10.51	2013	0.45%	2012	0.43%	2012	50.41%	2014	85	2014	10.4%	2011
Portugal	5	2015	6.09	2013	0.59%	2012	0.79%	2012	130.59%	2014	244	2014	27.2%	2011
Romania	5	2015	5.82	2013	0.24%	2012	0.24%	2012	40.49%	2014	52	2014	21.1%	2011
Slovakia	5	2015	7.89	2013	0.33%	2012	0.47%	2012	53.52%	2014	100	2014	10.4%	2011
Slovenia	8	2015	8.91	2013	0.74%	2012	1.83%	2012	80.37%	2014	165	2014	18.6%	2011
Spain	5	2015	6.94	2013	0.56%	2012	0.73%	2012	100.37%	2014	220	2014	14.8%	2011
Sweden	8	2015	5.77	2013	0.89%	2011	2.36%	2011	45.46%	2014	125	2014	46.5%	2011
Switzerland	9	2015	6.46	2013	0.75%	2012	2.44%	2012	42.97%	2014	170	2014	21.6%	2011
Turkey	4	2015	5.78	2013	0.23%	2012	0.60%	2012	28.77%	2014	27	2014	12.8%	2011
United Kingdom	8	2015	8.89	2013	0.46%	2012	1.13%	2012	87.01%	2014	203	2014	4.4%	2011
United States	6	2015	21.23	2013	0.79%	2012	1.89%	2012	104.45%	2014	297	2014	8.2%	2011

E1	0	E1:	1	E1:	2	F1		F2	2	F3		F4		F5		Fé	5
VALUE	DATE			VALUE	DATE					VALUE	DATE	VALUE	DATE	VALUE		VALUE	DATE
22.1	2014	40.90	2013	5.94	2012	8	2015	3.5	2013	73.0	2012	0.91	2014	19.7%	2013	3.31	2012
27.8	2014	29.92	2013	-3.17	2012	8	2015	3.2	2013	71.0	2012	0.74	2014	19.2%	2013	4.90	2012
27.6	2014	22.22	2013	-6.33	2012	7	2015	3.4	2013	71.0	2012	0.68	2014	17.5%	2013	2.93	2012
29.7	2014	10.82	2013	-0.54	2012	4	2015	7.8	2013	66.0	2012	0.80	2014	47.2%	2013	3.99	2014
23.0	2014	34.55	2013	7.18	2012	8	2015	4.8	2013	72.0	2012	0.84	2014	14.5%	2013	2.41	2012
14.7	2014	16.37	2013	-0.73	2012	7	2015	7.1	2013	70.0	2012	0.78	2013	32.9%	2013	1.03	2009
27.9	2014	12.04	2013	-1.11	2012	5	2015	4.3	2013	68.0	2012	0.66	2014	12.8%	2013	2.99	2012
17.8	2014	20.22	2013	-3.72	2012	6	2015	2.5	2013	74.0	2012	0.73	2014	43.1%	2013	2.50	2014
25.9	2014	15.65	2013	-3.03	2012	8	2015	2.5	2013	69.0	2012	0.60	2014	13.6%	2013	3.67	2012
28.8	2014	23.98	2013	-2.51	2012	8	2015	3.5	2013	70.0	2012	0.83	2014	13.8%	2013	3.66	2012
28.3	2014	27.51	2013	2.46	2012	8	2015	2.9	2013	67.0	2012	0.46	2014	22.6%	2013	4.55	2012
30.8	2014	35.61	2013	7.12	2012	8	2015	2.2	2013	71.0	2012	0.68	2014	19.0%	2013	3.29	2012
29.3	2014	20.97	2013	-2.28	2012	7	2015	3.4	2013	72.0	2012	0.82	2014	10.0%	2013	3.31	2012
31.9	2014	21.12	2013	-3.46	2012	8	2015	3.3	2013	71.0	2012	0.66	2014	13.0%	2013	3.95	2012
29.8	2014	26.34	2013	-2.84	2012	3	2015	3.5	2013	71.0	2012	0.91	2014	33.7%	2013	6.27	2012
25.0	2014	13.14	2013	-0.79	2012	4	2015	4.7	2013	66.0	2012	0.75	2014	28.4%	2013	3.09	2012
20.1	2014	31.17	2013	-4.26	2012	6	2015	1.8	2013	72.0	2012	0.84	2014	18.3%	2013	3.56	2012
19.5	2014	22.15	2013	-1.56	2012	5	2015	3.3	2013	71.0	2012	0.83	2014	14.1%	2013	3.95	2012
18.0	2014	21.90	2013	-5.93	2012	8	2015	3.3	2013	72.0	2012	0.92	2014	22.5%	2013	2.97	2012
34.2	2014	18.59	2013	-3.66	2012	7	2015	3.1	2013	73.0	2012	0.86	2014	21.8%	2013	3.87	2012
41.2	2014	23.98	2013	-4.17	2012	7	2015	2.1	2013	75.0	2012	0.71	2013	12.7%	2013	2.29	2012
17.0	2014	24.90	2013	-5.18	2012	8	2015	3.2	2013	73.0	2012	0.68	2014	34.6%	2013	2.07	2012
28.9	2014	18.66	2013	2.63	2012	4	2015	5.2	2013	65.0	2012	0.49	2014	38.5%	2013	3.14	2012
27.4	2014	31.39	2013	-0.57	2012	7	2015	4.0	2013	65.0	2012	0.59	2014	32.8%	2013	4.54	2012
20.1	2014	104.00	2013	-12.54	2012	8	2015	2.3	2013	72.0	2012	0.86	2014	10.3%	2013	2.80	2012
26.3	2014	25.61	2013	-4.77	2012	7	2015	5.8	2013	71.0	2012	0.71	2014	36.8%	2014	3.29	2012
9.6	2014	8.65	2013	-1.72	2012	5	2015	13.7	2013	67.0	2012	0.72	2014	41.3%	2013	2.12	2012
26.6	2014	25.40	2013	-5.77	2012	7	2015	3.5	2013	71.0	2012	0.77	2014	11.7%	2013	3.25	2012
21.8	2014	23.91	2013	4.74	2012	8	2015	4.9	2013	72.0	2012	0.96	2014	12.4%	2013	2.72	2012
24.4	2014	36.75	2013	1.47	2012	7	2015	2.3	2013	71.0	2012	0.81	2014	14.6%	2013	4.23	2012
21.6	2014	16.16	2013	-2.52		5	2015	4.5	2013	67.0	2012	0.75	2014	23.6%	2013	2.23	2012
31.0	2014		2013		2012	6	2015	3.0		71.0	2012	0.64	2014	27.0%			2012
24.6		15.33			2012	4	2015	9.0		66.0	2012	0.99	2014	20.2%	2013	2.61	2012
	2014		2013		2012	5	2015		2013		2012		2014	23.3%			
	2014		2013		2012	6	2015	2.2	2013	70.0		0.71		12.5%	2013	2.54	2012
	2014		2013		2012		2015		2013		2012	0.89	2014	24.0%	2013		2012
	2014		2013		2012		2015	2.4			2012	0.79	2014	15.5%	2013	4.05	2012
	2014		2013		2012		2015		2013		2012	0.75		28.3%			
	2014		2013		2012	6	2015		2013		2012		2014	16.9%	2013		2012
	2014		2013		2012		2015	3.9			2012			14.8%	2013	2.68	2012
21.5	2014	30.73	2013	-4.64	2012	7	2015	6.0	2013	70.0	2012	0.77	2014	11.9%	2013	2.50	2012

# TABLE 12A SJI 2016 Raw Data

COUNTRY	A	1	A	2	A	3	В	1	B	2	В	3	В	4
	VALUE	DATE												
Australia	12.8%	2014	13.0%	2014	25.7%	2014	6	2016	4.98	2012	0.14%	2013	21.0%	2015
Austria	8.3%	2015	10.4%	2015	7.2%	2015	6	2016	6.42	2012	0.47%	2013	15.4%	2015
Belgium	7.8%	2015	9.6%	2015	5.3%	2015	6	2016	6.30	2012	0.71%	2013	25.3%	2015
Bulgaria	15.5%	2015	19.5%	2015	19.2%	2015	4	2016	11.52	2012	1.03%	2013	18.1%	2015
Canada	14.2%	2015	17.1%	2015	10.7%	2015	8	2016	2.41	2012	0.42%	2011	9.6%	2015
Chile	16.1%	2015	21.1%	2015	16.3%	2015	4	2016	6.37	2012	0.64%	2012	35.1%	2015
Croatia	13.5%	2015	14.1%	2015	16.3%	2015	6	2016	3.75	2012	0.66%	2011	16.9%	2015
Cyprus	9.0%	2015	9.9%	2015	6.4%	2015	7	2016	2.83	2012	0.35%	2013	22.1%	2015
Czechia	5.3%	2015	9.7%	2015	1.8%	2015	6	2016	6.76	2012	0.54%	2013	6.8%	2015
Denmark	7.1%	2015	6.2%	2015	1.6%	2015	6	2016	5.99	2012	1.25%	2012	19.6%	2015
Estonia	12.5%	2015	13.9%	2015	10.7%	2015	9	2016	1.76	2012	0.35%	2013	11.3%	2015
Finland	5.3%	2015	3.4%	2015	2.8%	2015	8	2016	2.47	2012	0.77%	2013	12.3%	2015
France	6.5%	2015	8.4%	2015	2.9%	2015	6	2016	10.90	2012	0.70%	2013	22.5%	2015
Germany	10.2%	2015	7.8%	2015	9.0%	2015	8	2016	5.61	2012	0.44%	2013	13.2%	2015
Greece	15.0%	2015	19.3%	2015	7.1%	2015	4	2016	4.06	2012	0.25%	2013	29.6%	2015
Hungary	9.0%	2015	14.3%	2015	2.2%	2015	3	2016	8.47	2012	0.65%	2013	16.8%	2015
Iceland	4.9%	2015	6.0%	2015	1.0%	2015	6	2016	1.87	2012	0.90%	2013	25.0%	2015
Ireland	8.6%	2015	9.0%	2015	5.8%	2015	6	2016	5.89	2012	0.11%	2013	18.9%	2015
Israel	19.5%	2015	25.5%	2015	21.2%	2015	6	2016	4.96	2012	0.71%	2013	14.5%	2015
Italy	13.4%	2015	19.2%	2015	6.8%	2015	5	2016	2.98	2012	0.45%	2013	40.1%	2015
Japan	15.7%	2015	13.9%	2015	19.6%	2015	6	2016	2.99	2012	0.10%	2013	19.7%	2010
Korea	17.5%	2015	16.0%	2015	44.3%	2015	8	2016	2.57	2012	0.03%	1999	14.2%	2015
Latvia	14.7%	2015	17.1%	2015	16.4%	2015	5	2016	5.00	2012	0.82%	2013	9.9%	2015
Lithuania	14.4%	2015	20.2%	2015	12.1%	2015	7	2016	3.56	2012	0.63%	2012	6.5%	2015
Luxembourg	8.2%	2015	10.8%	2015	3.3%	2015	5	2016	5.82	2012	0.53%	2013	24.0%	2015
Malta	8.6%	2015	14.5%	2015	8.4%	2015	5	2016	5.30	2015	0.44%	2013	54.0%	2015
Mexico	16.7%	2014	19.7%	2014	25.6%	2014	5	2016	2.27	2012	0.53%	2011	64.3%	2015
Netherlands	5.8%	2015	6.3%	2015	2.2%	2015	6	2016	4.17	2012	0.38%	2013	23.6%	2015
New Zealand	10.9%	2014	14.1%	2014	10.6%	2014	9	2016	8.51	2012	0.47%	2013	25.3%	2015
Norway	6.5%	2015	5.6%	2015	1.3%	2015	6	2016	2.07	2012	0.73%	2013	17.3%	2015
Poland	10.7%	2015	13.7%	2015	5.7%	2015	7	2016	4.77	2012	0.59%	2013	9.2%	2015
Portugal	13.8%	2015	18.3%	2015	9.1%	2015	4	2016	5.18	2012	0.42%	2013	54.9%	2015
Romania	19.8%	2015	31.5%	2015	11.7%	2015	4	2016	6.33	2012	0.30%	2013	25.0%	2015
Slovakia	8.4%	2015	14.2%	2015	1.6%	2015	4	2016	13.39	2012	0.44%	2013	8.6%	2015
Slovenia	8.4%	2015	8.5%	2015	9.5%	2015	7	2016	5.62	2012	0.61%	2013	13.2%	2015
Spain	15.9%	2015	23.0%	2015	5.8%	2015	5	2016	3.92	2012	0.48%	2013	42.6%	2015
Sweden	9.3%	2015	11.5%	2015	4.6%	2015	6	2016	3.45	2012	1.29%	2013	15.7%	2015
Switzerland	8.9%	2015	9.5%	2015	16.5%	2015	8	2016	5.22	2012	0.18%	2013	12.7%	2015
Turkey	15.5%	2015	23.5%	2015	13.6%	2015	5	2016	4.30	2012	0.17%	2011	65.8%	2015
United Kingdom	9.7%	2015	9.6%	2015	9.8%	2015	7	2016	4.75	2012	0.31%	2013	20.3%	2015
United States	16.8%	2015	19.9%	2015	20.9%	2015	7	2016	4.20	2012	0.32%	2013	10.5%	2015

В	5	В	6	В	7	с	1	C	2	с	3	С	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.135	2015	9.1%	2012	4.27	2012	72.2%	2015	62.1%	2015	-0.05	2015	0.00	2015	0.86	2015
0.708	2015	10.7%	2012	5.24	2012	71.1%	2015	46.3%	2015	-0.11	2015	1.33	2015	0.89	2015
-0.083	2015	11.5%	2012	6.20	2012	61.8%	2015	44.0%	2015	-0.16	2015	1.50	2015	0.89	2015
-0.069	2015	28.6%	2012	3.70	2012	62.9%	2015	53.0%	2015	-0.12	2015	0.30	2012	0.91	2015
-0.215	2015	6.2%	2012	4.18	2012	72.5%	2015	60.9%	2015	-0.03	2015	0.09	2015	0.92	2015
0.011	2015	24.6%	2012	3.02	2012	62.4%	2015	64.5%	2015	0.25	2015	-0.27	2015	0.71	2015
0.467	2015	11.7%	2012	2.99	2012	56.0%	2015	39.2%	2015	0.01	2015	0.03	2015	0.86	2015
-0.014	2015	26.1%	2015	2.34	2015	62.7%	2015	48.5%	2015	0.10	2015	-0.08	2015	0.88	2015
0.740	2015	8.9%	2012	4.55	2012	70.2%	2015	55.5%	2015	0.01	2015	0.33	2015	0.80	2015
-0.124	2015	9.3%	2012	5.28	2012	73.5%	2015	64.7%	2015	-0.15	2015	1.24	2015	0.92	2015
-0.428	2015	3.2%	2012	4.87	2012	71.9%	2015	64.5%	2015	-0.03	2015	0.28	2015	0.91	2015
-0.338	2015	5.3%	2012	4.36	2012	68.5%	2015	60.0%	2015	-0.14	2015	0.92	2015	0.98	2015
0.060	2015	12.7%	2012	8.66	2012	63.8%	2015	48.7%	2015	-0.15	2015	0.82	2015	0.90	2015
0.296	2015	8.8%	2012	5.24	2012	74.0%	2015	66.2%	2015	-0.09	2015	0.88	2015	0.90	2015
-0.111	2015	15.7%	2012	3.20	2012	50.8%	2015	34.3%	2015	0.04	2015	0.30	2015	0.72	2015
0.219	2015	13.1%	2012	6.26	2012	63.9%	2015	45.3%	2015	0.11	2015	0.00	2015	0.82	2015
-0.024	2015	13.6%	2012	2.82	2012	84.7%	2015	84.8%	2015	-0.05	2015	0.79	2015	0.94	2015
-0.253	2015	6.8%	2012	6.24	2012	64.8%	2015	55.4%	2015	0.00	2015	0.17	2015	0.84	2015
-0.111	2015	18.5%	2012	3.87	2012	68.3%	2015	66.2%	2015	0.18	2015	-0.22	2015	0.89	2015
-0.090	2015	11.9%	2012	3.08	2012	56.3%	2015	48.2%	2015	0.05	2015	0.37	2015	0.72	2015
0.145	2010	5.5%	2012	4.20	2012	73.3%	2015	70.0%	2015	-0.07	2013	0.29	2013	0.79	2015
0.607	2015	4.4%	2012	3.12	2012	65.9%	2015	66.0%	2015	0.16	2013	0.29	2013	0.73	2015
-0.481	2015	8.3%	2012	4.41	2012	68.1%	2015	59.4%	2015	-0.07	2015	0.14	2015	0.95	2015
-0.402	2015	12.1%	2012	3.76	2012	67.2%	2015	60.4%	2015	0.01	2015	0.05	2015	0.98	2015
0.034	2015	14.4%	2012	5.31	2012	66.1%	2015	38.4%	2015	0.11	2015	0.98	2015	0.85	2015
-0.015	2015	21.9%	2015	3.03	2015	65.1%	2015	42.3%	2015	0.13	2015	-0.20	2015	0.68	2015
0.026	2015	31.0%	2012	1.93	2012	60.8%	2015	54.7%	2015	-0.15	2015	0.20	2015	0.57	2015
0.079	2015	8.6%	2012	4.16	2012	74.1%	2015	61.7%	2015	-0.20	2015	0.95	2015	0.88	2015
0.086	2015	11.1%	2012	5.15	2012	74.3%	2015	75.2%	2015	-0.01	2015	0.00	2015	0.87	2015
-0.040	2015	11.0%	2012	2.87	2012	74.8%	2015	72.2%	2015	-0.09	2015	2.03	2015	0.95	2015
-0.043	2015	5.7%	2012	6.97	2012	62.9%	2015	44.3%	2015	-0.03	2015	0.39	2015	0.82	2015
-0.123	2015	12.6%	2012	5.97	2012	63.9%	2015	49.9%	2015	0.07	2015	0.17	2015	0.91	2015
0.232	2015	24.0%	2012	3.63	2012	61.4%	2015	41.1%	2015	-0.10	2014	0.12	2012	0.77	2015
0.389	2015	18.8%	2012	5.48	2012	62.7%	2015	47.0%	2015	-0.07	2015	0.18	2015	0.80	2015
0.208	2015	9.9%	2012	4.91	2012	65.2%	2015	36.6%	2015	-0.07	2015	0.35	2015	0.88	2015
-0.096	2015	10.4%	2012	4.80	2012	57.8%	2015	46.9%	2015	-0.05	2015	0.44	2015	0.84	2015
-0.137	2015	15.0%	2012	2.91	2012	75.5%	2015	74.5%	2015	-0.18	2015	1.95	2015	0.96	2015
0.257	2015	7.5%	2012	4.91	2012	79.2%	2015	70.3%	2015	-0.07	2015	1.38	2015	0.89	2015
0.208	2015	15.6%	2012	2.50	2012	50.2%	2015	31.8%	2015	-0.12	2015	0.23	2015	0.44	2015
0.066	2015	11.2%	2012	3.80	2012	72.7%	2015	62.2%	2015	-0.04	2015	0.23	2015	0.88	2015
-0.150	2015	12.2%	2012	4.33	2012	68.7%	2015	61.5%	2015	0.03	2015	-0.11	2015	0.85	2015

# TABLE 12B SJI 2016 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	6.2%	2015	1.2%	2015	13.1%	2015	8.0%	2015	28.7%	2015	14.8%	2014	5	2016
Austria	5.8%	2015	1.7%	2015	10.6%	2015	10.6%	2015	12.4%	2015	14.8%	2014	7	2016
Belgium	8.6%	2015	4.5%	2015	22.1%	2015	14.8%	2015	10.0%	2015	3.8%	2014	6	2016
Bulgaria	9.2%	2015	5.6%	2015	21.6%	2015	24.7%	2015	60.6%	2015	18.2%	2014	4	2016
Canada	7.0%	2015	0.8%	2015	13.2%	2015	10.4%	2015	26.2%	2015	22.5%	2014	7	2016
Chile	6.5%	2015	0.7%	2015	15.5%	2015	5.9%	2015	47.6%	2015	11.5%	2013	5	2016
Croatia	16.4%	2015	10.4%	2015	42.3%	2015	21.5%	2015	26.4%	2015	23.1%	2014	4	2016
Cyprus	15.2%	2015	6.9%	2015	32.8%	2015	17.9%	2015	68.9%	2015	19.3%	2014	7	2016
Czechia	5.1%	2015	2.4%	2015	12.6%	2015	20.7%	2015	16.4%	2015	18.7%	2014	6	2016
Denmark	6.3%	2015	1.7%	2015	10.8%	2015	8.5%	2015	15.7%	2015	8.6%	2014	8	2016
Estonia	6.3%	2015	2.4%	2015	13.1%	2015	11.7%	2015	13.3%	2015	22.8%	2014	6	2016
Finland	9.6%	2015	2.4%	2015	22.4%	2015	12.3%	2015	31.4%	2015	5.3%	2014	8	2016
France	10.4%	2015	4.6%	2015	24.7%	2015	15.6%	2015	43.7%	2015	8.8%	2014	7	2016
Germany	4.7%	2015	2.1%	2015	7.2%	2015	11.4%	2015	13.8%	2015	22.5%	2014	7	2016
Greece	25.1%	2015	18.3%	2015	49.8%	2015	26.2%	2015	72.6%	2015	21.7%	2014	3	2016
Hungary	6.8%	2015	3.1%	2015	17.3%	2015	15.5%	2015	36.9%	2015	17.8%	2014	4	2016
Iceland	4.2%	2015	0.5%	2015	8.8%	2015	4.0%	2015	14.9%	2015	7.5%	2014	7	2016
Ireland	10.1%	2015	5.6%	2015	20.2%	2015	16.0%	2015	37.2%	2015	21.6%	2014	6	2016
Israel	5.3%	2015	0.6%	2015	9.3%	2015	6.5%	2015	12.4%	2015	23.5%	2014	3	2016
Italy	12.1%	2015	7.1%	2015	40.3%	2015	14.2%	2015	65.6%	2015	9.4%	2014	5	2016
Japan	3.5%	2015	1.2%	2015	5.5%	2015	0.0%	2015	20.6%	2015	13.9%	2014	6	2016
Korea	3.7%	2015	0.0%	2015	10.5%	2015	2.7%	2015	14.0%	2015	23.7%	2014	6	2016
Latvia	10.1%	2015	4.6%	2015	16.3%	2015	22.4%	2015	32.7%	2015	25.5%	2014	5	2016
Lithuania	9.3%	2015	4.0%	2015	16.3%	2015	26.2%	2015	31.9%	2015	24.0%	2014	6	2016
Luxembourg	6.7%	2015	1.9%	2015	17.3%	2015	8.2%	2015	14.8%	2015	11.9%	2014	9	2016
Malta	5.4%	2015	2.4%	2015	11.6%	2015	7.4%	2015	16.4%	2015	15.1%	2014	6	2016
Mexico	4.5%	2015	0.1%	2015	8.6%	2015	3.1%	2015	15.4%	2015	14.8%	2014	3	2016
Netherlands	6.9%	2015	3.0%	2015	11.3%	2015	9.3%	2015	9.9%	2015	18.5%	2014	7	2016
New Zealand	6.0%	2015	0.8%	2015	14.7%	2015	6.2%	2015	20.5%	2015	13.9%	2014	7	2016
Norway	4.4%	2015	1.1%	2015	9.9%	2015	7.5%	2015	20.6%	2015	8.3%	2014	9	2016
Poland	7.6%	2015	3.0%	2015	20.8%	2015	15.5%	2015	30.5%	2015	23.6%	2014	7	2016
Portugal	12.9%	2015	7.4%	2015	32.0%	2015	13.0%	2015	50.1%	2015	12.0%	2014	4	2016
Romania	7.0%	2015	3.1%	2015	21.7%	2015	7.7%	2015	59.0%	2015	24.4%	2014	4	2016
Slovakia	11.5%	2015	7.6%	2015	26.5%	2015	34.4%	2015	29.9%	2015	19.2%	2014	5	2016
Slovenia	9.1%	2015	4.8%	2015	16.3%	2015	13.6%	2015	13.0%	2015	18.5%	2014	8	2016
Spain	22.2%	2015	11.5%	2015	48.3%	2015	28.9%	2015	63.2%	2015	14.6%	2014	4	2016
Sweden	7.6%	2015	1.6%	2015	20.4%	2015	14.1%	2015	29.4%	2015	2.6%	2014	8	2016
Switzerland	4.9%	2015	1.8%	2015	8.8%	2015	9.3%	2015	8.3%	2015	9.4%	2014	8	2016
Turkey	10.4%	2015	2.2%	2015	18.5%	2015	8.9%	2015	9.2%	2015	0.5%	2014	5	2016
United Kingdom	5.4%	2015	1.7%	2015	14.6%	2015	7.3%	2015	17.9%	2015	21.3%	2014	7	2016
United States	5.4%	2015	1.0%	2015	11.6%	2015	9.2%	2015	8.3%	2015	24.9%	2014	6	2016

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
33.7%	2014	7	2016	26.7%	2015	8	2016	13.1%	2015	-0.300	2015	7	2016	8	2016
27.2%	2015	6	2016	30.6%	2015	6	2016	9.8%	2015	0.630	2015	7	2016	6	2016
26.2%	2015	7	2016	39.3%	2015	6	2016	17.5%	2015	0.468	2015	8	2016	7	2016
37.0%	2015	6	2016	20.4%	2015	3	2016	24.0%	2015	-0.710	2015	6	2016	5	2016
31.8%	2015	8	2016	26.0%	2015	9	2016	14.4%	2015	-0.214	2015	7	2016	8	2016
45.4%	2015	5	2016	15.8%	2015	4	2016	20.7%	2015	-0.419	2013	5	2016	6	2016
30.4%	2015	5	2016	15.2%	2015	3	2016	23.8%	2015	0.211	2015	5	2016	4	2016
33.6%	2015	8	2016	12.5%	2015	4	2016	22.2%	2015	0.080	2015	4	2016	5	2016
25.0%	2015	6	2016	20.0%	2015	4	2016	10.8%	2015	0.301	2015	6	2016	8	2016
27.4%	2015	8	2016	37.4%	2015	6	2016	9.3%	2015	-0.062	2015	9	2016	9	2016
34.8%	2015	7	2016	23.8%	2015	7	2016	15.1%	2015	-0.656	2015	9	2016	7	2016
25.2%	2015	8	2016	41.5%	2015	7	2016	15.7%	2015	0.743	2015	9	2016	9	2016
29.2%	2015	6	2016	26.2%	2015	6	2016	18.1%	2015	0.674	2015	10	2016	6	2016
30.1%	2015	8	2016	36.5%	2015	7	2016	9.3%	2015	1.072	2015	8	2016	5	2016
34.2%	2015	6	2016	19.7%	2015	6	2016	26.1%	2015	0.441	2015	5	2016	4	2016
28.2%	2015	4	2016	10.1%	2015	4	2016	16.5%	2015	-0.443	2015	4	2016	4	2016
24.7%	2015	6	2016	41.3%	2015	6	2016	5.6%	2015	0.012	2015	9	2016	7	2016
29.7%	2015	9	2016	16.3%	2015	7	2016	18.2%	2015	-0.486	2015	7	2016	6	2016
36.0%	2015	5	2016	26.7%	2015	5	2016	18.6%	2015	-0.164	2013	6	2016	7	2016
32.4%	2015	7	2016	31.0%	2015	6	2016	31.1%	2015	0.148	2015	4	2016	5	2016
33.9%	2015	5	2016	9.5%	2015	3	2016	10.1%	2014	0.659	2013	5	2016	5	2016
35.2%	2015	5	2016	16.3%	2015	5	2016	22.2%	2013	-0.041	2013	5	2016	6	2016
35.4%	2015	7	2016	18.0%	2015	5	2016	16.1%	2015	-0.582	2015	7	2016	4	2016
37.9%	2015	7	2016	23.4%	2015	7	2016	14.4%	2015	-0.585	2009	7	2016	7	2016
28.5%	2015	8	2016	28.3%	2015	8	2016	8.8%	2015	-0.065	2015	8	2016	7	2016
28.1%	2015	5	2016	12.9%	2015	3	2016	9.9%	2015	-0.216	2015	6	2016	5	2016
45.9%	2014	5	2016	42.4%	2015	3	2016	25.3%	2015	-0.324	2015	5	2016	5	2016
26.7%	2015	9	2016	37.3%	2015	8	2016	7.2%	2015	0.225	2015	8	2016	8	2016
34.9%	2014	9	2016	31.4%	2015	9	2016	14.9%	2015	-0.222	2013	8	2016	6	2016
23.9%	2015	9	2016	39.6%	2015	8	2016	8.2%	2015	0.181	2015	9	2016	9	2016
30.6%	2015	8	2016	27.4%	2015	5	2016	17.6%	2015	-0.641	2015	7	2016	7	2016
34.0%	2015	7	2016	34.8%	2015	8	2016	17.5%	2015	-0.308	2015	7	2016	4	2016
37.4%	2015	5	2016	13.7%	2015	6	2016	24.1%	2015	-0.800	2009	5	2016	4	2016
23.7%	2015	5	2016	18.7%	2015	4	2016	19.2%	2015	-0.137	2015	5	2016	5	2016
24.5%	2015	7	2016	36.7%	2015	5	2016	14.0%	2015	0.839	2015	8	2016	7	2016
34.6%	2015	7	2016	41.1%	2015	7	2016	22.2%	2015	0.018	2015	5	2016	7	2016
26.7%	2015	9	2016	43.6%	2015	7	2016	9.3%	2015	0.880	2015	10	2016	8	2016
29.6%	2015	8	2016	32.0%	2015	7	2016	9.5%	2015	0.882	2015	4	2016	10	2016
41.9%	2015	5	2016	14.9%	2015	6	2016	32.7%	2015	-0.244	2015	4	2016	5	2016
32.4%	2015	8	2016	29.4%	2015	7	2016	15.0%	2015	-0.181	2015	8	2016	8	2016
39.0%	2015	9	2016	19.4%	2015	7	2016	15.8%	2015	0.848	2015	7	2016	7	2016

# TABLE 12C SJI 2016 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	4	2016	22.36	2014	0.78%	2008	1.47%	2008	37.77%	2015	97	2015	8.3%	2012
Austria	6	2016	8.97	2014	0.99%	2013	1.96%	2013	84.40%	2015	282	2015	33.4%	2012
Belgium	6	2016	10.13	2014	0.57%	2013	1.76%	2013	106.46%	2015	278	2015	7.8%	2012
Bulgaria	6	2016	8.10	2014	0.20%	2013	0.44%	2013	25.64%	2015	36	2015	15.8%	2012
Canada	5	2016	20.40	2014	0.58%	2013	1.13%	2013	91.32%	2015	263	2015	22.6%	2012
Chile	5	2016	6.25	2013	0.15%	2013	0.24%	2013	17.28%	2015	20	2015	30.3%	2012
Croatia	5	2016	5.61	2014	0.32%	2013	0.49%	2013	85.27%	2015	128	2015	29.4%	2012
Cyprus	4	2016	7.13	2014	0.29%	2013	0.19%	2013	107.99%	2015	224	2015	8.3%	2012
Czechia	6	2016	12.04	2014	0.66%	2013	1.24%	2013	39.96%	2015	85	2015	12.8%	2012
Denmark	9	2016	9.19	2014	0.89%	2013	2.08%	2013	39.76%	2015	111	2015	27.3%	2012
Estonia	9	2016	16.09	2014	0.81%	2013	0.91%	2013	9.85%	2015	18	2015	24.9%	2012
Finland	8	2016	10.75	2014	0.86%	2013	2.43%	2013	63.53%	2015	160	2015	38.8%	2012
France	6	2016	6.96	2014	0.79%	2013	1.45%	2013	95.58%	2015	208	2015	12.4%	2012
Germany	8	2016	11.15	2014	0.82%	2013	2.00%	2013	70.84%	2015	258	2015	12.0%	2012
Greece	4	2016	9.10	2014	0.42%	2013	0.39%	2013	177.83%	2015	323	2015	13.9%	2012
Hungary	6	2016	5.82	2014	0.50%	2013	0.89%	2013	76.61%	2015	142	2015	16.5%	2012
Iceland	6	2016	14.16	2014	0.63%	2013	1.07%	2013	65.03%	2015	154	2015	77.3%	2012
Ireland	7	2016	12.26	2014	0.43%	2013	1.13%	2013	76.92%	2015	234	2015	6.6%	2012
Israel	6	2016	9.41	2014	0.51%	2013	3.57%	2013	63.76%	2015	79	2015	2.7%	2012
Italy	4	2016	7.01	2014	0.54%	2013	0.77%	2013	131.56%	2015	345	2015	14.4%	2012
Japan	6	2016	10.69	2014	0.57%	2013	2.74%	2013	231.55%	2015	720	2015	4.5%	2012
Korea	5	2016	13.58	2014	0.95%	2013	3.20%	2013	39.53%	2015	104	2015	1.6%	2012
Latvia	9	2016	5.60	2014	0.15%	2013	0.46%	2013	36.81%	2015	61	2015	40.4%	2012
Lithuania	8	2016	6.79	2014	0.33%	2013	0.62%	2013	42.58%	2015	84	2015	23.9%	2012
Luxembourg	7	2016	19.39	2014	0.63%	2013	0.67%	2013	22.19%	2015	135	2015	4.2%	2012
Malta	4	2016	6.62	2014	0.27%	2013	0.50%	2013	57.92%	2015	155	2015	2.6%	2012
Mexico	4	2016	5.57	2014	0.35%	2013	0.15%	2013	52.83%	2015	36	2015	9.0%	2012
Netherlands	5	2016	11.10	2014	0.64%	2013	1.29%	2013	64.65%	2015	195	2015	5.0%	2012
New Zealand	6	2016	18.03	2014	0.46%	2013	0.70%	2013	34.37%	2015	64	2015	30.5%	2012
Norway	8	2016	10.54	2014	0.76%	2013	0.89%	2013	32.87%	2015	127	2015	58.3%	2012
Poland	6	2016	10.18	2014	0.41%	2013	0.46%	2013	51.28%	2015	91	2015	10.9%	2012
Portugal	6	2016	6.13	2014	0.62%	2013	0.71%	2013	128.77%	2015	253	2015	25.5%	2012
Romania	5	2016	5.84	2014	0.20%	2013	0.19%	2013	39.35%	2015	54	2015	21.6%	2012
Slovakia	5	2016	7.50	2014	0.32%	2013	0.50%	2013	52.18%	2015	103	2015	10.5%	2012
Slovenia	8	2016	8.06	2014	0.69%	2013	1.89%	2013	82.57%	2015	173	2015	19.7%	2012
Spain	5	2016	7.02	2014	0.53%	2013	0.74%	2013	99.33%	2015	229	2015	15.8%	2012
Sweden	9	2016	5.55	2014	0.93%	2013	2.37%	2013	44.18%	2015	126	2015	50.0%	2012
Switzerland	9	2016	5.91	2014	0.75%	2012	2.44%	2012	43.01%	2015	173	2015	23.0%	2012
Turkey	4	2016	5.93	2014	0.22%	2013	0.60%	2013	27.64%	2015	28	2015	12.8%	2012
United Kingdom	7	2016	8.19	2014	0.48%	2013	1.16%	2013	87.88%	2015	210	2015	4.8%	2012
United States	6	2016	21.23	2014	0.75%	2013	1.96%	2013	104.69%	2015	310	2015	8.5%	2012

E10		E11		E12		F1		F2		F3		F4		F5		F6	
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
22.6	2015	41.88	2014	5.84	2013	8	2016	3.3	2014	73.0	2012	0.91	2014	19.6%	2014	3.37	2013
28.1	2015	30.46	2014	-3.27	2013	7	2016	3.1	2014	71.0	2012	0.72	2015	19.1%	2014	4.99	2013
28.0	2015	22.46	2014	-6.22	2013	7	2016	3.3	2014	71.0	2012	0.66	2015	17.1%	2014	2.96	2013
30.5	2015	11.28	2014	0.01	2013	4	2016	7.4	2014	66.0	2012	0.65	2015	45.8%	2014	3.99	2014
23.8	2015	34.54	2014	7.13	2013	8	2016	4.7	2014	72.0	2012	0.84	2015	14.5%	2014	2.46	2013
15.2	2015	16.33	2014	-0.72	2013	7	2016	6.9	2014	70.0	2012	0.68	2015	32.7%	2014	1.03	2009
28.5	2015	12.33	2014	-0.81	2013	5	2016	4.2	2014	68.0	2012	0.60	2015	15.8%	2014	3.03	2013
18.3	2015	20.00	2014	-3.01	2013	6	2016	2.4	2014	74.0	2012	0.80	2015	44.8%	2014	2.50	2014
26.9	2015	16.19	2014	-3.04	2013	8	2016	2.5	2014	69.0	2012	0.60	2015	14.1%	2014	3.69	2013
29.7	2015	24.05	2014	-2.70	2013	8	2016	3.6	2014	70.0	2012	0.84	2015	13.8%	2014	3.65	2013
28.9	2015	28.05	2014	3.33	2013	8	2016	2.6	2014	67.0	2012	0.45	2015	22.6%	2014	4.67	2013
32.0	2015	35.18	2014	6.65	2013	8	2016	2.1	2014	71.0	2012	0.68	2015	19.0%	2014	3.30	2013
30.2	2015	21.18	2014	-2.22	2013	7	2016	3.4	2014	72.0	2012	0.83	2015	9.9%	2014	3.31	2013
32.1	2015	21.38	2014	-3.46	2013	8	2016	3.3	2014	71.0	2012	0.64	2015	12.6%	2014	4.04	2013
30.5	2015	26.26	2014	-2.68	2013	3	2016	3.6	2014	71.0	2012	0.90	2015	36.6%	2014	6.28	2013
25.7	2015	14.16	2014	-0.85	2013	4	2016	4.5	2014	66.0	2012	0.72	2015	28.3%	2014	3.21	2013
20.8	2015	31.35	2014	-4.26	2012	6	2016	1.8	2014	72.0	2012	0.82	2015	18.0%	2014	3.61	2013
20.3	2015	22.39	2014	-1.67	2013	5	2016	3.2	2014	71.0	2012	0.78	2015	14.2%	2014	3.93	2013
18.4	2015	21.84	2014	-5.36	2013	8	2016	3.2	2014	72.0	2012	0.93	2015	22.8%	2014	2.94	2013
35.0	2015	18.74	2014	-3.49	2013	7	2016	3.0	2014	73.0	2012	0.88	2015	22.1%	2014	3.90	2013
42.7	2015	23.20	2014	-4.20	2013	7	2016	2.1	2014	75.0	2012	0.71	2013	12.9%	2014	2.29	2012
17.7	2015	24.81	2014	-5.15	2013	8	2016	3.1	2014	73.0	2012	0.69	2015	34.3%	2014	2.16	2013
29.4	2015	20.60	2014	2.28	2013	4	2016	4.7	2014	65.0	2012	0.47	2015	39.1%	2014	3.19	2013
28.0	2015	32.56	2014	-0.44	2013	7	2016	4.0	2014	65.0	2012	0.54	2015	31.5%	2014	4.59	2013
20.1	2015	103.41	2014	-12.11	2013	8	2016	2.2	2014	72.0	2012	0.80	2015	10.8%	2014	2.83	2013
27.3	2015	25.39	2014	-4.40	2013	7	2016	5.8	2014	71.0	2012	0.65	2015	36.8%	2014	3.44	2013
9.8	2015	8.62	2014	-1.46	2013	5	2016	13.2	2014	67.0	2012	0.78	2015	41.5%	2014	2.17	2013
27.4	2015	25.63	2014	-5.20	2013	6	2016	3.5	2014	71.0	2012	0.75	2015	12.2%	2014	3.31	2013
22.4	2015	23.98	2014	4.71	2013	8	2016	4.7	2014	72.0	2012	0.96	2015	12.9%	2014	2.83	2013
24.8	2015	36.81	2014	1.25	2013	7	2016	2.3	2014	71.0	2012	0.81	2015	14.4%	2014	4.31	2013
22.5	2015	16.58	2014	-2.38	2013	5	2016	4.3	2014	67.0	2012	0.74	2015	23.1%	2014	2.24	2013
	2015	16.71	2014	-2.42	2013	6	2016	3.0		71.0	2012	0.64	2015	27.7%	2014	4.26	2013
25.2			2014	-0.03	2013	4		8.4	2014	66.0	2012	1.01	2015	20.3%	2014	2.64	2013
	2015		2014		2013	4	2016		2014		2012		2015	18.0%			2013
26.8	2015		2014		2013	6	2016	2.0		70.0		0.72	2015	13.0%	2014	2.63	2013
	2015		2014		2013		2016		2014		2012	0.90		24.4%	2014		2013
	2015		2014		2013		2016	2.4			2012	0.77		15.5%	2014	4.13	2013
	2015		2014		2013		2016		2014		2012		2015	29.2%		4.04	
	2015		2014		2013		2016		2014		2012		2015	17.7%	2014	1.77	2013
	2015		2014		2013		2016	3.8			2012	0.73	2015	14.7%	2014	2.69	2013
22.1	2015	30.95	2014	-4.81	2013	7	2016	5.9	2014	70.0	2012	0.77	2015	11.5%	2014	2.56	2013

# TABLE 13A SJI 2017 Raw Data

COUNTRY	A1		A2		A3		B1		B2		B3		B4	
	VALUE	DATE												
Australia	12.1%	2016	12.5%	2016	23.2%	2016	6	2017	4.52	2015	0.15%	2014	20.1%	2016
Austria	8.1%	2016	9.3%	2016	6.6%	2016	6	2017	6.57	2015	0.48%	2014	15.5%	2016
Belgium	8.6%	2016	10.0%	2016	6.3%	2016	6	2017	7.77	2015	0.70%	2014	24.9%	2016
Bulgaria	16.5%	2016	26.1%	2016	12.0%	2016	4	2017	8.17	2015	1.05%	2014	17.7%	2016
Canada	12.4%	2016	14.2%	2016	10.5%	2016	8	2017	2.76	2015	0.54%	2014	9.4%	2016
Chile	16.1%	2015	21.1%	2015	16.3%	2015	5	2017	4.20	2015	0.84%	2014	35.1%	2015
Croatia	13.5%	2016	14.6%	2016	17.2%	2016	5	2017	4.47	2015	0.66%	2011	17.3%	2016
Cyprus	8.3%	2016	8.9%	2016	8.6%	2016	7	2017	2.01	2015	0.35%	2014	20.5%	2016
Czechia	5.3%	2016	9.5%	2016	1.6%	2016	6	2017	9.48	2015	0.55%	2014	6.6%	2016
Denmark	6.8%	2016	5.3%	2016	1.4%	2016	7	2017	3.22	2015	1.25%	2012	19.3%	2016
Estonia	13.1%	2016	12.3%	2016	16.5%	2016	9	2017	2.24	2015	0.35%	2013	10.9%	2016
Finland	4.9%	2016	3.4%	2016	2.4%	2016	8	2017	3.70	2015	0.77%	2014	11.9%	2016
France	6.8%	2016	9.7%	2016	2.3%	2016	6	2017	10.49	2015	0.70%	2014	21.9%	2016
Germany	9.7%	2016	7.8%	2016	9.4%	2016	7	2017	4.86	2015	0.44%	2014	13.5%	2016
Greece	15.3%	2016	19.1%	2016	6.9%	2016	4	2017	4.48	2015	0.27%	2014	28.2%	2016
Hungary	7.8%	2016	10.2%	2016	3.0%	2016	3	2017	10.25	2015	0.65%	2013	16.6%	2016
Iceland	4.0%	2016	4.6%	2016	1.3%	2016	6	2017	1.35	2015	0.93%	2014	21.8%	2016
Ireland	9.1%	2016	11.0%	2016	6.4%	2016	6	2017	4.49	2015	0.10%	2014	18.6%	2016
Israel	17.7%	2016	23.2%	2016	19.4%	2016	6	2017	4.16	2015	0.72%	2014	13.2%	2016
Italy	14.2%	2016	18.9%	2016	7.5%	2016	5	2017	3.63	2015	0.46%	2014	39.9%	2016
Japan	15.7%	2015	13.9%	2015	19.6%	2015	6	2017	4.13	2015	0.10%	2014	19.7%	2010
Korea	17.6%	2016	15.2%	2016	45.0%	2016	8	2017	4.23	2015	0.03%	1999	13.1%	2016
Latvia	14.4%	2016	12.2%	2016	22.9%	2016	5	2017	2.64	2015	0.86%	2014	9.3%	2016
Lithuania	15.9%	2016	19.9%	2016	15.2%	2016	7	2017	4.22	2015	0.50%	2014	5.4%	2016
Luxembourg	10.3%	2016	12.7%	2016	6.7%	2016	5	2017	7.54	2015	0.57%	2014	21.6%	2016
Malta	7.8%	2016	10.8%	2016	8.9%	2016	5	2017	5.30	2015	0.52%	2014	51.6%	2016
Mexico	16.6%	2016	19.8%	2016	24.7%	2016	4	2017	2.54	2015	0.53%	2011	63.4%	2016
Netherlands	6.6%	2016	7.6%	2016	3.0%	2016	6	2017	4.89	2015	0.37%	2014	22.9%	2016
New Zealand	10.9%	2014	14.1%	2014	10.6%	2014	9	2017	5.19	2015	0.44%	2014	23.4%	2016
Norway	6.9%	2016	7.1%	2016	1.7%	2016	7	2017	1.98	2015	0.69%	2014	17.7%	2016
Poland	11.1%	2016	14.0%	2016	6.3%	2016	5	2017	4.80	2015	0.61%	2014	8.7%	2016
Portugal	13.0%	2016	16.7%	2016	9.7%	2016	5	2017	3.98	2015	0.42%	2014	53.1%	2016
Romania	19.2%	2016	30.2%	2016	11.0%	2016	4	2017	5.57	2015	0.34%	2014	23.3%	2016
Slovakia	8.1%	2016	14.4%	2016	1.5%	2016	4	2017	7.57	2015	0.49%	2014	8.1%	2016
Slovenia	8.2%	2016	6.6%	2016	10.4%	2016	7	2017	4.28	2015	0.65%	2014	12.7%	2016
Spain	15.5%	2016	21.9%	2016	6.0%	2016	6	2017	3.22	2015	0.48%	2014	41.7%	2016
Sweden	9.4%	2016	12.8%	2016	4.9%	2016	7	2017	4.57	2015	1.30%	2014	15.0%	2016
Switzerland	8.9%	2016	10.2%	2016	16.9%	2016	8	2017	5.06	2015	0.24%	2014	12.6%	2016
Turkey	15.5%	2016	23.4%	2016	11.8%	2016	3	2017	1.83	2015	0.17%	2011	64.4%	2016
United Kingdom	9.9%	2016	10.2%	2016	10.0%	2016	7	2017	3.10	2015	0.20%	2014	20.5%	2016
United States	17.8%	2016	20.9%	2016	22.9%	2016	6	2017	2.52	2015	0.33%	2014	9.9%	2016

В	5	B	6	В	7	с	1	C	2	с	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.135	2015	11.1%	2015	4.07	2015	72.4%	2016	62.5%	2016	-0.05	2016	0.03	2016	0.87	2016
0.627	2016	13.5%	2015	4.12	2015	71.5%	2016	49.2%	2016	-0.12	2016	1.43	2016	0.90	2016
-0.062	2016	12.7%	2015	5.52	2015	62.3%	2016	45.4%	2016	-0.16	2016	1.49	2016	0.87	2016
-0.060	2016	29.6%	2015	3.14	2015	63.4%	2016	54.5%	2016	-0.04	2016	0.30	2012	0.90	2016
-0.215	2015	5.9%	2015	3.26	2015	72.6%	2016	61.6%	2016	-0.02	2016	0.10	2016	0.92	2016
0.011	2015	23.3%	2015	2.82	2015	62.2%	2016	63.8%	2016	0.25	2015	-0.27	2015	0.72	2016
0.354	2016	14.5%	2015	2.84	2015	56.9%	2016	38.1%	2016	-0.03	2016	0.00	2016	0.85	2016
-0.066	2016	26.1%	2015	2.34	2015	63.7%	2016	52.2%	2016	0.03	2016	-0.04	2016	0.86	2016
0.640	2016	13.7%	2015	6.95	2015	72.0%	2016	58.5%	2016	0.03	2016	0.48	2016	0.81	2016
-0.135	2016	7.5%	2015	3.99	2015	74.9%	2016	67.8%	2016	-0.13	2016	1.09	2016	0.93	2016
-0.479	2016	4.7%	2015	4.95	2015	72.1%	2016	65.2%	2016	-0.03	2016	0.42	2016	0.91	2016
-0.336	2016	6.3%	2015	4.30	2015	69.1%	2016	61.4%	2016	-0.16	2016	1.06	2016	0.96	2016
0.056	2016	14.8%	2015	7.36	2015	64.2%	2016	49.8%	2016	-0.16	2016	0.82	2016	0.90	2016
0.231	2016	9.8%	2015	5.06	2015	74.7%	2016	68.6%	2016	-0.11	2016	0.92	2016	0.90	2016
-0.107	2016	20.7%	2015	2.77	2015	52.0%	2016	36.3%	2016	0.03	2016	0.33	2016	0.71	2016
0.243	2016	18.5%	2015	5.58	2015	66.5%	2016	49.8%	2016	0.11	2016	0.14	2016	0.82	2016
-0.014	2016	13.2%	2015	2.28	2015	86.6%	2016	84.6%	2016	0.00	2016	0.37	2016	0.94	2016
-0.281	2016	6.8%	2015	5.08	2015	66.4%	2016	56.8%	2016	0.02	2016	0.13	2016	0.85	2016
-0.111	2015	20.2%	2015	2.73	2015	68.6%	2016	66.5%	2016	0.19	2016	-0.23	2016	0.91	2016
-0.098	2016	12.2%	2015	3.26	2015	57.2%	2016	50.3%	2016	0.04	2016	0.31	2016	0.72	2016
0.145	2010	5.6%	2015	5.63	2015	74.3%	2016	71.4%	2016	-0.07	2013	0.29	2013	0.80	2016
0.607	2015	7.7%	2015	4.03	2015	66.1%	2016	66.2%	2016	0.16	2013	0.29	2013	0.74	2016
-0.407	2016	10.5%	2015	3.32	2015	68.7%	2016	61.4%	2016	-0.07	2016	0.07	2016	0.97	2016
-0.412	2016	15.3%	2015	3.38	2015	69.4%	2016	64.6%	2016	-0.01	2016	0.10	2016	0.98	2016
0.107	2016	17.0%	2015	5.81	2015	65.6%	2016	39.6%	2016	0.12	2016	1.10	2016	0.86	2016
-0.027	2016	21.9%	2015	3.03	2015	67.2%	2016	45.8%	2016	0.15	2016	-0.22	2016	0.70	2016
0.026	2015	33.8%	2015	1.76	2015	61.1%	2016	55.0%	2016	-0.10	2016	0.13	2016	0.57	2016
0.063	2016	10.9%	2015	4.30	2015	74.8%	2016	63.5%	2016	-0.19	2016	0.96	2016	0.88	2016
0.086	2015	10.6%	2015	4.01	2015	75.6%	2016	76.1%	2016	-0.01	2016	-0.09	2016	0.88	2016
-0.050	2016	8.9%	2015	3.05	2015	74.3%	2016	72.6%	2016	-0.08	2016	1.46	2016	0.96	2016
-0.045	2016	8.3%	2015	4.60	2015	64.5%	2016	46.2%	2016	-0.03	2016	0.65	2016	0.82	2016
-0.132	2016	10.7%	2015	4.98	2015	65.2%	2016	52.1%	2016	0.09	2016	0.19	2016	0.91	2016
0.209	2016	24.3%	2015	2.95	2015	61.6%	2016	42.8%	2016	-0.10	2014	0.12	2012	0.76	2016
0.362	2016	20.1%	2015	3.96	2015	64.9%	2016	49.0%	2016	-0.03	2016	0.18	2015	0.82	2016
0.228	2016	8.2%	2015	3.55	2015	65.8%	2016	38.5%	2016	-0.06	2016	0.44	2016	0.91	2016
-0.117	2016	10.3%	2015	4.87	2015	59.5%	2016	49.1%	2016	-0.04	2016	0.41	2016	0.84	2016
-0.096	2016	11.4%	2015	3.79	2015	76.2%	2016	75.5%	2016	-0.18	2016	2.24	2016	0.97	2016
0.291	2016	10.1%	2015	4.66	2015	79.6%	2016	71.5%	2016	-0.08	2016	1.40	2016	0.90	2016
0.205	2016	31.2%	2015	1.92	2015	50.6%	2016	33.4%	2016	-0.14	2016	0.15	2016	0.45	2016
0.025	2016	10.1%	2015	3.28	2015	73.5%	2016	63.4%	2016	-0.03	2016	0.17	2016	0.88	2016
-0.150	2015	13.6%	2015	3.66	2015	69.4%	2016	61.8%	2016	0.03	2016	-0.17	2016	0.86	2016

## TABLE 13B SJI 2017 Raw Data

COUNTRY	C	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	5.9%	2016	1.1%	2016	12.6%	2016	7.5%	2016	27.9%	2016	15.4%	2015	5	2017
Austria	6.1%	2016	2.0%	2016	11.2%	2016	11.7%	2016	13.0%	2016	14.8%	2014	7	2017
Belgium	7.9%	2016	4.1%	2016	20.1%	2016	14.5%	2016	8.8%	2016	3.8%	2014	6	2017
Bulgaria	7.7%	2016	4.5%	2016	17.2%	2016	21.9%	2016	58.7%	2016	18.2%	2014	4	2017
Canada	7.1%	2016	0.8%	2016	13.1%	2016	10.9%	2016	25.0%	2016	22.2%	2015	7	2017
Chile	6.8%	2016	0.9%	2016	15.7%	2016	5.9%	2015	48.1%	2016	12.1%	2015	5	2017
Croatia	13.3%	2016	6.7%	2016	31.3%	2016	16.8%	2016	30.7%	2016	23.1%	2014	4	2017
Cyprus	13.2%	2016	5.9%	2016	29.1%	2016	15.7%	2016	69.4%	2016	19.3%	2014	7	2017
Czechia	4.0%	2016	1.7%	2016	10.5%	2016	19.2%	2016	14.2%	2016	18.7%	2014	6	2017
Denmark	6.3%	2016	1.4%	2016	12.0%	2016	6.6%	2016	13.8%	2016	8.6%	2014	8	2017
Estonia	7.0%	2016	2.2%	2016	13.4%	2016	11.5%	2016	10.1%	2016	22.8%	2014	6	2017
Finland	9.0%	2016	2.3%	2016	20.1%	2016	11.8%	2016	34.2%	2016	5.3%	2014	8	2017
France	10.1%	2016	4.6%	2016	24.6%	2016	15.9%	2016	44.2%	2016	8.8%	2014	7	2017
Germany	4.2%	2016	1.7%	2016	7.1%	2016	10.0%	2016	12.0%	2016	22.5%	2014	7	2017
Greece	23.7%	2016	17.0%	2016	47.3%	2016	26.2%	2016	72.0%	2016	21.7%	2014	4	2017
Hungary	5.1%	2016	2.4%	2016	12.9%	2016	11.8%	2016	29.8%	2016	17.8%	2014	4	2017
Iceland	3.1%	2016	0.5%	2015	6.5%	2016	2.7%	2016	13.0%	2016	7.5%	2014	7	2017
Ireland	8.6%	2016	4.5%	2016	16.8%	2016	13.9%	2016	30.8%	2016	21.6%	2014	7	2017
Israel	4.9%	2016	0.7%	2016	8.6%	2016	7.1%	2016	10.9%	2016	23.8%	2015	3	2017
Italy	11.9%	2016	6.9%	2016	37.8%	2016	14.3%	2016	64.3%	2016	9.4%	2014	5	2017
Japan	3.3%	2016	1.2%	2016	5.1%	2016	0.0%	2015	19.5%	2016	13.5%	2015	6	2017
Korea	3.8%	2016	0.0%	2016	10.7%	2016	2.8%	2016	14.1%	2016	23.5%	2015	6	2017
Latvia	9.9%	2016	4.1%	2016	17.3%	2016	19.8%	2016	35.9%	2016	25.5%	2014	5	2017
Lithuania	8.1%	2016	3.1%	2016	14.5%	2016	26.2%	2016	31.6%	2016	24.0%	2014	6	2017
Luxembourg	6.3%	2016	2.2%	2016	18.9%	2016	7.0%	2016	11.6%	2016	11.9%	2014	9	2017
Malta	4.7%	2016	1.9%	2016	10.7%	2016	6.4%	2016	11.9%	2016	15.1%	2014	6	2017
Mexico	4.0%	2016	0.1%	2016	7.7%	2016	2.6%	2016	16.9%	2016	17.3%	2015	4	2017
Netherlands	6.1%	2016	2.6%	2016	10.8%	2016	7.6%	2016	9.9%	2016	18.5%	2014	7	2017
New Zealand	5.4%	2016	0.7%	2016	13.2%	2016	5.4%	2016	24.5%	2016	13.9%	2015	7	2017
Norway	4.8%	2016	1.3%	2016	11.2%	2016	7.6%	2016	20.6%	2015	8.3%	2014	9	2017
Poland	6.2%	2016	2.2%	2016	17.7%	2016	13.0%	2016	25.4%	2016	23.6%	2014	7	2017
Portugal	11.5%	2016	6.4%	2016	28.0%	2016	11.6%	2016	48.7%	2016	12.0%	2014	5	2017
Romania	6.1%	2016	3.1%	2016	20.6%	2016	7.3%	2016	57.8%	2016	24.4%	2014	4	2017
Slovakia	9.7%	2016	5.8%	2016	22.2%	2016	29.4%	2016	34.6%	2016	19.2%	2014	5	2017
Slovenia	8.1%	2016	4.3%	2016	15.2%	2016	14.0%	2016	14.1%	2016	18.5%	2014	8	2017
Spain	19.7%	2016	9.5%	2016	44.4%	2016	26.1%	2016	61.9%	2016	14.6%	2014	5	2017
Sweden	7.1%	2016	1.4%	2016	18.9%	2016	14.4%	2016	28.3%	2016	2.6%	2014	8	2017
Switzerland	5.1%	2016	1.8%	2016	8.6%	2016	9.8%	2016	8.6%	2016	9.4%	2014	8	2017
Turkey	11.1%	2016	2.3%	2016	19.5%	2016	9.1%	2016	11.2%	2016	0.5%	2014	5	2017
United Kingdom	4.9%	2016	1.3%	2016	13.0%	2016	6.2%	2016	16.0%	2016	21.3%	2014	7	2017
United States	4.9%	2016	0.8%	2016	10.4%	2016	8.1%	2016	7.3%	2016	25.0%	2015	6	2017

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
33.0%	2016	7	2017	28.7%	2016	8	2017	12.0%	2016	-0.300	2015	7	2017	8	2017
27.2%	2016	6	2017	30.6%	2016	6	2017	9.8%	2016	0.706	2016	7	2017	6	2017
26.3%	2016	7	2017	39.3%	2016	6	2017	15.3%	2016	0.469	2016	8	2017	7	2017
37.7%	2016	5	2017	20.4%	2016	3	2017	22.7%	2016	-0.650	2016	6	2017	5	2017
30.7%	2016	8	2017	26.0%	2016	9	2017	14.9%	2016	-0.214	2015	8	2017	8	2017
45.4%	2015	5	2017	15.8%	2016	5	2017	20.7%	2015	-0.419	2013	5	2017	5	2017
29.8%	2016	5	2017	12.6%	2016	3	2017	19.6%	2016	0.219	2016	5	2017	4	2017
32.1%	2016	8	2017	17.9%	2016	4	2017	22.6%	2016	0.050	2016	4	2017	5	2017
25.1%	2016	6	2017	20.0%	2016	4	2017	10.6%	2016	0.211	2016	6	2017	8	2017
27.7%	2016	8	2017	37.4%	2016	6	2017	8.5%	2016	-0.052	2016	9	2017	9	2017
32.7%	2016	8	2017	23.8%	2016	7	2017	13.3%	2016	-0.537	2016	9	2017	7	2017
25.4%	2016	8	2017	41.5%	2016	7	2017	14.6%	2016	0.598	2016	9	2017	9	2017
29.3%	2016	6	2017	26.2%	2016	6	2017	18.2%	2016	0.671	2016	10	2017	6	2017
29.5%	2016	8	2017	36.5%	2016	7	2017	9.8%	2016	1.153	2016	8	2017	6	2017
34.3%	2016	6	2017	19.7%	2016	5	2017	23.0%	2016	0.453	2016	5	2017	4	2017
28.2%	2016	4	2017	10.1%	2016	3	2017	15.4%	2016	-0.196	2016	4	2017	4	2017
24.1%	2016	6	2017	47.6%	2016	6	2017	5.4%	2016	-0.158	2016	9	2017	7	2017
29.6%	2016	9	2017	22.2%	2016	7	2017	15.3%	2016	-0.520	2016	7	2017	6	2017
34.6%	2016	5	2017	26.7%	2016	5	2017	18.0%	2016	-0.164	2013	7	2017	7	2017
33.1%	2016	7	2017	31.0%	2016	6	2017	29.1%	2016	0.215	2016	4	2017	6	2017
33.9%	2015	5	2017	9.5%	2016	3	2017	10.1%	2014	0.659	2013	5	2017	6	2017
35.5%	2016	5	2017	17.0%	2016	5	2017	22.2%	2013	-0.041	2013	5	2017	6	2017
34.5%	2016	7	2017	18.0%	2016	5	2017	18.1%	2016	-0.635	2016	7	2017	4	2017
37.0%	2016	7	2017	21.3%	2016	7	2017	15.3%	2016	-0.570	2016	7	2017	7	2017
31.0%	2016	8	2017	28.3%	2016	8	2017	9.0%	2016	-0.157	2016	8	2017	7	2017
28.6%	2016	5	2017	12.9%	2016	4	2017	8.2%	2016	-0.202	2016	7	2017	6	2017
45.8%	2016	4	2017	42.4%	2016	3	2017	24.9%	2016	-0.324	2015	4	2017	5	2017
26.9%	2016	9	2017	37.3%	2016	8	2017	6.9%	2016	0.183	2016	8	2017	8	2017
34.9%	2014	9	2017	31.4%	2016	9	2017	13.1%	2016	-0.222	2013	8	2017	6	2017
25.0%	2016	9	2017	39.6%	2016	8	2017	8.4%	2016	0.186	2016	9	2017	9	2017
29.8%	2016	6	2017	27.4%	2016	4	2017	16.8%	2016	-0.322	2016	5	2017	5	2017
33.9%	2016	7	2017	34.8%	2016	8	2017	17.2%	2016	-0.352	2016	7	2017	5	2017
34.7%	2016	5	2017	13.7%	2016	6	2017	23.6%	2016	-0.800	2009	5	2017	4	2017
24.3%	2016	5	2017	20.0%	2016	3	2017	16.8%	2016	-0.315	2016	4	2017	5	2017
24.4%	2016	7	2017	36.7%	2016	5	2017	11.8%	2016	0.774	2016	8	2017	7	2017
34.5%	2016	7	2017	39.1%	2016	7	2017	21.2%	2016	0.047	2016	5	2017	7	2017
27.6%	2016	9	2017	43.6%	2016	6	2017	9.3%	2016	0.915	2016	10	2017	8	2017
29.4%	2016	8	2017	32.0%	2016	7	2017	8.9%	2016	0.907	2016	4	2017	10	2017
42.6%	2016	4	2017	14.9%	2016	7	2017	32.5%	2016	-0.179	2016	4	2017	5	2017
31.5%	2016	7	2017	29.6%	2016	6	2017	14.8%	2016	-0.221	2016	8	2017	8	2017
39.1%	2016	8	2017	19.4%	2015	6	2017	15.4%	2016	0.848	2015	7	2017	7	2017

## TABLE 13C SJI 2017 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	4	2017	22.47	2015	0.78%	2008	1.47%	2008	40.53%	2016	107	2016	9.1%	2013
Austria	6	2017	9.13	2015	1.10%	2014	1.98%	2014	82.87%	2016	281	2016	34.7%	2013
Belgium	6	2017	10.39	2015	0.57%	2013	1.76%	2013	106.06%	2016	283	2016	8.1%	2013
Bulgaria	6	2017	8.60	2015	0.21%	2014	0.58%	2014	27.36%	2016	40	2016	18.2%	2013
Canada	7	2017	20.22	2015	0.55%	2014	1.17%	2014	91.82%	2016	268	2016	22.4%	2013
Chile	6	2017	6.25	2013	0.17%	2014	0.21%	2014	21.02%	2016	25	2016	30.2%	2013
Croatia	4	2017	5.77	2015	0.33%	2014	0.45%	2014	82.28%	2016	131	2016	32.8%	2013
Cyprus	4	2017	7.15	2015	0.27%	2014	0.24%	2014	105.51%	2016	231	2016	9.5%	2013
Czechia	6	2017	12.12	2015	0.65%	2014	1.32%	2014	36.81%	2016	80	2016	13.9%	2013
Denmark	8	2017	8.67	2015	0.89%	2013	2.08%	2013	37.28%	2016	108	2016	27.3%	2013
Estonia	9	2017	13.78	2015	0.71%	2014	0.72%	2014	9.16%	2016	17	2016	24.5%	2013
Finland	8	2017	10.06	2015	0.87%	2014	2.30%	2014	63.00%	2016	164	2016	38.5%	2013
France	6	2017	7.00	2015	0.77%	2014	1.46%	2014	96.59%	2016	216	2016	13.5%	2013
Germany	8	2017	11.11	2015	0.82%	2014	2.05%	2014	67.85%	2016	251	2016	12.1%	2013
Greece	4	2017	8.81	2015	0.44%	2014	0.39%	2014	181.07%	2016	337	2016	16.3%	2013
Hungary	6	2017	6.17	2015	0.45%	2014	0.90%	2014	75.86%	2016	146	2016	17.2%	2013
Iceland	6	2017	14.25	2015	0.67%	2014	1.28%	2014	51.25%	2016	132	2016	76.2%	2013
Ireland	8	2017	12.59	2015	0.41%	2014	1.09%	2014	73.54%	2016	237	2016	7.4%	2013
Israel	6	2017	9.59	2015	0.57%	2014	3.61%	2014	61.97%	2016	79	2016	3.3%	2013
Italy	5	2017	7.15	2015	0.53%	2014	0.81%	2014	131.35%	2016	356	2016	16.3%	2013
Japan	6	2017	10.39	2015	0.54%	2014	2.86%	2014	236.34%	2016	752	2016	4.9%	2013
Korea	5	2017	13.53	2015	0.98%	2014	3.30%	2014	39.89%	2016	110	2016	1.9%	2013
Latvia	9	2017	5.69	2015	0.18%	2014	0.51%	2014	40.31%	2016	68	2016	39.6%	2013
Lithuania	8	2017	6.96	2015	0.34%	2014	0.69%	2014	39.93%	2016	81	2016	26.3%	2013
Luxembourg	7	2017	18.07	2015	0.63%	2013	0.67%	2013	20.68%	2016	129	2016	5.7%	2013
Malta	4	2017	4.92	2015	0.22%	2014	0.49%	2014	55.45%	2016	157	2016	2.6%	2013
Mexico	5	2017	5.60	2015	0.38%	2014	0.15%	2014	56.76%	2016	40	2016	9.2%	2013
Netherlands	5	2017	11.54	2015	0.66%	2014	1.32%	2014	61.89%	2016	195	2016	5.0%	2013
New Zealand	6	2017	17.67	2015	0.46%	2013	0.70%	2013	33.53%	2016	65	2016	30.0%	2013
Norway	8	2017	10.49	2015	0.76%	2013	0.89%	2013	36.17%	2016	142	2016	57.7%	2013
Poland	4	2017	10.28	2015	0.42%	2014	0.52%	2014	54.23%	2016	100	2016	11.4%	2013
Portugal	6	2017	6.54	2015	0.61%	2014	0.68%	2014	129.21%	2016	266	2016	30.2%	2013
Romania	5	2017	5.88	2015	0.19%	2014	0.19%	2014	38.88%	2016	56	2016	23.1%	2013
Slovakia	5	2017	7.68	2015	0.36%	2014	0.52%	2014	51.77%	2016	106	2016	10.7%	2013
Slovenia	8	2017	8.15	2015	0.52%	2014	1.85%	2014	78.68%	2016	171	2016	22.0%	2013
Spain	5	2017	7.27	2015	0.51%	2014	0.73%	2014	98.97%	2016	239	2016	17.0%	2013
Sweden	9	2017	5.46	2015	0.93%	2013	2.37%	2013	42.36%	2016	123	2016	48.8%	2013
Switzerland	9	2017	5.77	2015	0.75%	2012	2.44%	2012	41.84%	2016	171	2016	23.0%	2013
Turkey	4	2017	6.01	2015	0.23%	2014	0.63%	2014	28.31%	2016	30	2016	13.9%	2013
United Kingdom	7	2017	7.86	2015	0.47%	2014	1.19%		87.91%	2016	214	2016	6.0%	2013
United States	6	2017	20.65	2015	0.71%	2014	2.01%	2014	106.87%	2016	325	2016	8.7%	2013

E1	0	E1	1	E1:	2	F1		F2	2	F3		F4		F5		F6	5
VALUE	DATE			VALUE	DATE					VALUE	DATE	VALUE	DATE	VALUE		VALUE	DATE
23.2	2016	42.21		6.55	2014	7		3.2	2015	73.0	2012	0.91	2014	18.9%	2015	3.44	2014
28.5	2016	30.74	2015	-3.06	2014	7	2017	3.0	2015	71.0	2012	0.78	2016	19.0%	2015	5.05	2014
28.4	2016	22.72	2015	-5.98	2014	7	2017	3.2	2015	71.0	2012	0.67	2016	16.5%	2015	2.98	2014
31.3	2016	11.84	2015	-0.01	2014	4	2017	7.0	2015	66.0	2012	0.74	2016	47.7%	2015	3.99	2014
24.6	2016	34.28	2015	7.45	2014	8	2017	4.7	2015	72.0	2012	0.85	2016	14.5%	2015	2.50	2014
15.6	2016	16.34	2015	-0.50	2014	7	2017	6.7	2015	70.0	2012	0.68	2015	32.2%	2015	1.03	2009
29.3	2016	12.44	2015	-0.63	2014	5	2017	4.1	2015	68.0	2012	0.61	2016	15.5%	2015	3.14	2014
18.8	2016	19.95	2015	-3.17	2014	6	2017	2.3	2015	74.0	2012	0.78	2016	44.3%	2015	2.50	2014
28.0	2016	16.85	2015	-2.94	2014	7	2017	2.5	2015	69.0	2012	0.56	2016	13.7%	2015	3.69	2013
30.4	2016	24.15	2015	-2.69	2014	8	2017	3.6	2015	70.0	2012	0.79	2016	13.7%	2015	3.66	2014
29.6	2016	27.92	2015	2.88	2014	8	2017	2.5	2015	67.0	2012	0.42	2016	22.8%	2015	4.79	2014
33.1	2016	35.35	2015	6.86	2014	8	2017	2.0	2015	71.0	2012	0.68	2016	19.7%	2015	3.39	2014
31.0	2016	21.43	2015	-2.05	2014	7	2017	3.5	2015	72.0	2012	0.85	2016	9.8%	2015	3.33	2014
32.4	2016	21.63	2015	-3.27	2014	8	2017	3.3	2015	71.0	2012	0.65	2016	12.7%	2015	4.11	2014
30.8	2016	26.17	2015	-2.73	2014	3	2017	3.9	2015	71.0	2012	0.93	2016	36.2%	2015	6.32	2014
26.6	2016	14.35	2015	-0.93	2014	4	2017	4.3	2015	66.0	2012	0.71	2016	28.9%	2015	3.32	2014
21.4	2016	31.32	2015	-4.26	2012	6	2017	1.7	2015	72.0	2012	0.83	2016	17.6%	2015	3.64	2014
21.0	2016	21.62	2015	-1.59	2014	5	2017	3.1	2015	71.0	2012	0.77	2016	13.6%	2015	3.01	2014
18.9	2016	21.75	2015	-4.44	2014	8	2017	3.0	2015	72.0	2012	0.94	2016	22.7%	2015	2.98	2014
35.7	2016	18.93	2015	-3.46	2014	7	2017	3.0	2015	73.0	2012	0.90	2016	23.1%	2015	3.88	2014
43.9	2016	23.54	2015	-4.10	2014	7	2017	2.1	2015	75.0	2012	0.71	2016	12.9%	2013	2.36	2014
18.4	2016	25.17	2015	-5.06	2014	8	2017	3.0	2015	73.0	2012	0.76	2016	34.0%	2015	2.20	2014
29.9	2016	21.39	2015	2.04	2014	4	2017	4.3	2015	65.0	2012	0.40	2016	42.1%	2015	3.22	2014
28.4	2016	33.71	2015	-0.67	2014	7	2017	4.0	2015	65.0	2012	0.43	2016	31.8%	2015	4.61	2014
20.4	2016	102.74	2015	-11.36	2014	8	2017	2.2	2015	72.0	2012	0.88	2016	11.0%	2015	2.88	2014
28.4	2016	25.37	2015	-4.61	2014	7	2017	5.7	2015	71.0	2012	0.65	2016	37.5%	2015	3.60	2014
10.1	2016	8.62	2015	-1.37	2014	5	2017	12.7	2015	67.0	2012	0.96	2016	41.4%	2015	2.23	2014
28.2	2016	25.88	2015	-5.27	2014	6	2017	3.4	2015	71.0	2012	0.75	2016	11.6%	2015	3.42	2014
23.0	2016	23.99	2015	4.40	2014	8	2017	4.6	2015	72.0	2012	0.95	2016	13.4%	2015	2.84	2014
25.3	2016	37.19	2015	1.32	2014	7	2017	2.2	2015	71.0	2012	0.80	2016	14.1%	2015	4.43	2014
23.5	2016	16.83	2015	-2.31		5	2017	4.2	2015	67.0	2012	0.72	2016	23.2%	2015	2.31	2014
32.5	2016	16.69	2015	-2.47	2014	6	2017	3.0		71.0	2012	0.60	2016	27.7%		4.43	2014
25.9		16.00		0.04	2014	4	2017	7.8		66.0	2012	0.96	2016	21.3%	2015	2.70	2014
	2016		2015		2014		2017		2015		2012	0.80	2016	18.4%			2014
27.8			2015		2014	5	2017	1.9		70.0		0.69	2016	12.5%	2015	2.77	2014
	2016		2015		2014		2017		2015		2012	0.87	2016	23.8%	2015	3.80	2014
	2016		2015		2014		2017	2.4			2012	0.74	2016	15.5%	2015	4.20	2014
	2016		2015		2014		2017		2015		2012		2016	29.1%		4.13	
	2016		2015		2014		2017		2015		2012	0.84		16.9%	2015		2014
	2016		2015		2014		2017	3.8			2012		2016	14.9%	2015		2014
22.8	2016	30.70	2015	-4.73	2014	6	2017	5.8	2015	70.0	2012	0.77	2016	11.1%	2015	2.57	2014

## TABLE 14A SJI 2018 Raw Data

COUNTRY	A	1	A	2	А	3	В	1	B	2	В	3	B	4
	VALUE	DATE												
Australia	12.1%	2016	12.5%	2016	23.2%	2016	6	2018	4.52	2015	0.17%	2015	19.0%	2017
Austria	8.8%	2017	11.0%	2017	6.7%	2017	6	2018	6.57	2015	0.49%	2015	15.0%	2017
Belgium	8.3%	2017	10.5%	2017	5.4%	2017	6	2018	7.77	2015	0.70%	2015	23.2%	2017
Bulgaria	16.0%	2017	22.2%	2017	18.3%	2017	4	2018	8.17	2015	0.97%	2015	17.2%	2017
Canada	12.1%	2017	11.6%	2017	12.2%	2017	8	2018	2.76	2015	0.54%	2014	8.9%	2017
Chile	16.5%	2017	21.5%	2017	17.6%	2017	5	2018	4.20	2015	0.64%	2015	32.6%	2017
Croatia	13.4%	2017	13.8%	2017	18.9%	2017	5	2018	4.47	2015	0.66%	2011	16.2%	2017
Cyprus	7.1%	2017	7.2%	2017	9.1%	2017	7	2018	2.01	2015	0.35%	2015	18.9%	2017
Czechia	4.5%	2017	7.2%	2017	2.5%	2017	6	2018	9.48	2015	0.52%	2015	6.2%	2017
Denmark	7.2%	2017	5.4%	2017	1.5%	2017	7	2018	3.22	2015	1.25%	2012	18.7%	2017
Estonia	13.0%	2017	10.4%	2017	20.8%	2017	9	2018	2.24	2015	0.35%	2013	11.2%	2017
Finland	4.9%	2017	4.0%	2017	2.5%	2017	8	2018	3.70	2015	0.77%	2015	11.7%	2017
France	6.6%	2017	9.6%	2017	1.8%	2017	7	2018	10.49	2015	0.70%	2015	21.6%	2017
Germany	9.4%	2017	6.9%	2017	9.2%	2017	7	2018	4.86	2015	0.46%	2015	13.5%	2017
Greece	14.5%	2017	17.6%	2017	7.0%	2017	4	2018	4.48	2015	0.26%	2015	27.1%	2017
Hungary	6.7%	2017	6.3%	2017	4.1%	2017	3	2018	10.25	2015	0.78%	2015	16.0%	2017
Iceland	4.0%	2016	4.6%	2016	1.3%	2016	6	2018	1.35	2015	0.90%	2015	22.7%	2017
Ireland	8.2%	2017	9.2%	2017	5.1%	2017	6	2018	4.49	2015	0.07%	2015	17.5%	2017
Israel	17.9%	2017	23.7%	2017	19.9%	2017	6	2018	4.16	2015	0.80%	2015	12.6%	2017
Italy	13.4%	2017	17.6%	2017	7.8%	2017	5	2018	3.63	2015	0.48%	2015	39.1%	2017
Japan	15.7%	2015	13.9%	2015	19.6%	2015	6	2018	4.13	2015	0.10%	2014	19.7%	2010
Korea	17.4%	2017	14.5%	2017	43.8%	2017	8	2018	4.23	2015	0.03%	1999	12.4%	2017
Latvia	15.4%	2017	13.5%	2017	25.0%	2017	5	2018	2.64	2015	0.81%	2015	9.6%	2017
Lithuania	16.1%	2017	19.0%	2017	19.3%	2017	7	2018	4.22	2015	0.56%	2015	5.2%	2017
Luxembourg	11.0%	2017	13.3%	2017	6.8%	2017	6	2018	7.54	2015	0.57%	2015	23.6%	2017
Malta	8.6%	2017	13.5%	2017	9.3%	2017	5	2018	5.30	2015	0.53%	2015	48.9%	2017
Mexico	16.6%	2016	19.8%	2016	24.7%	2016	5	2018	2.54	2015	0.53%	2011	62.3%	2017
Netherlands	6.9%	2017	7.5%	2017	3.0%	2017	6	2018	4.89	2015	0.36%	2015	21.6%	2017
New Zealand	10.9%	2014	14.1%	2014	10.6%	2014	9	2018	5.19	2015	0.48%	2015	21.1%	2017
Norway	7.1%	2017	7.6%	2017	1.5%	2017	7	2018	1.98	2015	0.72%	2015	17.8%	2017
Poland	9.5%	2017	8.8%	2017	6.5%	2017	5	2018	4.80	2015	0.61%	2015	7.9%	2017
Portugal	12.3%	2017	15.6%	2017	8.0%	2017	6	2018	3.98	2015	0.39%	2015	52.0%	2017
Romania	17.6%	2017	26.2%	2017	12.8%	2017	4	2018	5.57	2015	0.33%	2015	22.1%	2017
Slovakia	7.8%	2017	13.4%	2017	2.2%	2017	4	2018	7.57	2015	0.49%	2015	8.6%	2017
Slovenia	7.6%	2017	6.4%	2017	8.9%	2017	7	2018	4.28	2015	0.56%	2015	12.1%	2017
Spain	15.7%	2017	22.0%	2017	8.1%	2017	6	2018	3.22	2015	0.47%	2015	40.9%	2017
Sweden	9.3%	2017	12.2%	2017	4.8%	2017	7	2018	4.57	2015	1.29%	2015	14.7%	2017
Switzerland	9.7%	2017	10.5%	2017	17.9%	2017	8	2018	5.06	2015	0.41%	2015	12.2%	2017
Turkey	14.9%	2017	23.2%	2017	11.7%	2017	3	2018	1.83	2015	0.17%	2011	63.6%	2017
United Kingdom	9.7%	2017	11.1%	2017	8.4%	2017	7	2018	3.10	2015	0.26%	2015	19.9%	2017
United States	17.8%	2017	21.2%	2017	23.1%	2017	6	2018	2.52	2015	0.32%	2015	9.4%	2017

B	5	B	6	В	7	с	1	C	2	с	3	С	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.065	2017	11.1%	2015	4.07	2015	73.0%	2017	63.6%	2017	-0.05	2017	0.04	2017	0.87	2017
0.564	2017	13.5%	2015	4.12	2015	72.2%	2017	51.3%	2017	-0.11	2017	1.55	2017	0.90	2017
-0.075	2017	12.7%	2015	5.52	2015	63.1%	2017	48.3%	2017	-0.13	2017	1.35	2017	0.87	2017
-0.056	2017	29.6%	2015	3.14	2015	66.9%	2017	58.2%	2017	-0.05	2017	0.30	2012	0.89	2017
-0.283	2017	5.9%	2015	3.26	2015	73.4%	2017	62.2%	2017	-0.01	2017	0.08	2017	0.93	2017
-0.007	2017	23.3%	2015	2.82	2015	62.7%	2017	65.3%	2017	0.25	2015	-0.27	2015	0.73	2017
0.305	2017	14.5%	2015	2.84	2015	58.9%	2017	40.3%	2017	-0.01	2017	0.04	2017	0.85	2017
-0.016	2017	26.1%	2015	2.34	2015	65.6%	2017	55.3%	2017	0.04	2017	-0.07	2017	0.88	2017
0.583	2017	13.7%	2015	6.95	2015	73.6%	2017	62.1%	2017	0.05	2017	0.03	2017	0.82	2017
-0.184	2017	7.5%	2015	3.99	2015	74.2%	2017	68.9%	2017	-0.14	2017	1.08	2017	0.93	2017
-0.483	2017	4.7%	2015	4.95	2015	74.1%	2017	68.1%	2017	-0.04	2017	0.08	2017	0.92	2017
-0.389	2017	6.3%	2015	4.30	2015	70.0%	2017	62.5%	2017	-0.15	2017	0.88	2017	0.96	2017
0.057	2017	14.8%	2015	7.36	2015	64.7%	2017	51.3%	2017	-0.14	2017	0.79	2017	0.89	2017
0.185	2017	9.8%	2015	5.06	2015	75.2%	2017	70.1%	2017	-0.12	2017	0.94	2017	0.91	2017
-0.081	2017	20.7%	2015	2.77	2015	53.5%	2017	38.3%	2017	-0.01	2017	0.44	2017	0.71	2017
0.279	2017	18.5%	2015	5.58	2015	68.2%	2017	51.7%	2017	0.08	2017	-0.19	2017	0.82	2017
-0.017	2017	13.2%	2015	2.28	2015	86.1%	2017	83.9%	2017	0.02	2017	0.25	2017	0.94	2017
-0.296	2017	6.8%	2015	5.08	2015	67.7%	2017	58.4%	2017	0.03	2017	0.25	2017	0.85	2017
-0.093	2017	20.2%	2015	2.73	2015	69.0%	2017	66.8%	2017	0.19	2017	-0.18	2017	0.91	2017
-0.102	2017	12.2%	2015	3.26	2015	58.0%	2017	52.2%	2017	0.04	2017	0.29	2017	0.73	2017
0.145	2010	5.6%	2015	5.63	2015	75.3%	2017	73.3%	2017	-0.07	2013	0.29	2013	0.81	2017
0.576	2017	7.7%	2015	4.03	2015	66.6%	2017	67.5%	2017	0.16	2013	0.29	2013	0.75	2017
-0.440	2017	10.5%	2015	3.32	2015	70.1%	2017	62.3%	2017	-0.06	2017	-0.11	2017	0.95	2017
-0.456	2017	15.3%	2015	3.38	2015	70.4%	2017	66.1%	2017	-0.01	2017	0.04	2017	0.99	2017
0.070	2017	17.0%	2015	5.81	2015	66.3%	2017	39.8%	2017	0.16	2017	0.51	2017	0.89	2017
-0.002	2017	21.9%	2015	3.03	2015	69.2%	2017	47.2%	2017	0.13	2017	0.54	2017	0.72	2017
0.025	2017	33.8%	2015	1.76	2015	61.1%	2017	54.9%	2017	-0.15	2017	0.17	2017	0.57	2017
0.038	2017	10.9%	2015	4.30	2015	75.8%	2017	65.7%	2017	-0.19	2017	1.07	2017	0.89	2017
-0.051	2017	10.6%	2015	4.01	2015	76.9%	2017	78.2%	2017	-0.01	2016	-0.09	2016	0.88	2017
-0.091	2017	8.9%	2015	3.05	2015	74.0%	2017	71.9%	2017	-0.08	2017	1.76	2017	0.96	2017
-0.025	2017	8.3%	2015	4.60	2015	66.1%	2017	48.3%	2017	0.06	2017	0.73	2017	0.82	2017
-0.157	2017	10.7%	2015	4.98	2015	67.8%	2017	56.2%	2017	0.11	2017	0.10	2017	0.91	2017
0.177	2017	24.3%	2015	2.95	2015	63.9%	2017	44.5%	2017	0.09	2017	0.12	2012	0.78	2017
0.342	2017	20.1%	2015	3.96	2015	66.2%	2017	53.0%	2017	0.03	2017	0.18	2015	0.84	2017
0.180	2017	8.2%	2015	3.55	2015	69.3%	2017	42.7%	2017	-0.05	2017	0.29	2017	0.91	2017
-0.120	2017	10.3%	2015	4.87	2015	61.1%	2017	50.5%	2017	-0.03	2017	0.45	2017	0.84	2017
-0.110	2017	11.4%	2015	3.79	2015	76.9%	2017	76.4%	2017	-0.17	2017	2.42	2017	0.96	2017
0.259	2017	10.1%	2015	4.66	2015	79.8%	2017	72.2%	2017	-0.07	2017	1.29	2017	0.89	2017
0.197	2017	31.2%	2015	1.92	2015	51.5%	2017	34.4%	2017	-0.11	2017	0.08	2017	0.46	2017
-0.005	2017	10.1%	2015	3.28	2015	74.1%	2017	64.1%	2017	-0.03	2017	0.19	2017	0.89	2017
-0.158	2017	13.6%	2015	3.66	2015	70.1%	2017	62.5%	2017	0.04	2017	-0.13	2017	0.86	2017

## TABLE 14B SJI 2018 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	5.8%	2017	1.1%	2017	12.6%	2017	7.1%	2017	28.7%	2017	15.6%	2016	5	2018
Austria	5.6%	2017	1.9%	2017	9.8%	2017	12.5%	2017	12.4%	2017	14.8%	2014	7	2018
Belgium	7.1%	2017	3.5%	2017	19.3%	2017	13.1%	2017	7.8%	2017	3.8%	2014	6	2018
Bulgaria	6.2%	2017	3.4%	2017	12.9%	2017	17.9%	2017	58.7%	2017	18.2%	2014	4	2018
Canada	6.4%	2017	0.8%	2017	11.6%	2017	9.9%	2017	24.2%	2017	22.3%	2016	7	2018
Chile	7.0%	2017	1.0%	2017	16.8%	2017	5.9%	2017	48.1%	2017	12.1%	2015	5	2018
Croatia	11.3%	2017	4.6%	2017	27.4%	2017	19.1%	2017	36.1%	2017	23.1%	2014	4	2018
Cyprus	11.3%	2017	4.6%	2017	24.7%	2017	13.3%	2017	67.6%	2017	19.3%	2014	6	2018
Czechia	2.9%	2017	1.0%	2017	7.9%	2017	11.9%	2017	9.1%	2017	18.7%	2014	6	2018
Denmark	5.9%	2017	1.3%	2017	11.0%	2017	6.7%	2017	13.8%	2017	8.6%	2014	8	2018
Estonia	5.9%	2017	2.0%	2017	12.1%	2017	10.1%	2017	7.5%	2017	22.8%	2014	6	2018
Finland	8.8%	2017	2.2%	2017	20.1%	2017	12.9%	2017	31.7%	2017	5.3%	2014	8	2018
France	9.5%	2017	4.3%	2017	22.3%	2017	15.1%	2017	43.1%	2017	8.8%	2014	7	2018
Germany	3.8%	2017	1.6%	2017	6.8%	2017	9.2%	2017	11.3%	2017	22.5%	2014	7	2018
Greece	21.7%	2017	15.8%	2017	43.6%	2017	23.9%	2017	70.2%	2017	21.7%	2014	4	2018
Hungary	4.2%	2017	1.7%	2017	10.7%	2017	10.1%	2017	26.8%	2017	17.8%	2014	4	2018
Iceland	2.9%	2017	0.3%	2017	7.9%	2017	2.1%	2017	13.2%	2017	7.5%	2014	7	2018
Ireland	6.9%	2017	3.2%	2017	14.4%	2017	10.7%	2017	23.6%	2017	21.6%	2014	7	2018
Israel	4.3%	2017	0.5%	2017	7.3%	2017	4.8%	2017	10.7%	2017	23.1%	2016	3	2018
Italy	11.4%	2017	6.7%	2017	34.7%	2017	14.3%	2017	62.5%	2017	9.4%	2014	6	2018
Japan	3.0%	2017	1.0%	2017	4.6%	2017	0.0%	2015	17.7%	2017	12.7%	2016	5	2018
Korea	3.8%	2017	0.1%	2017	10.3%	2017	2.8%	2017	11.3%	2017	23.5%	2016	6	2018
Latvia	8.9%	2017	3.3%	2017	17.0%	2017	18.3%	2017	34.5%	2017	25.5%	2014	5	2018
Lithuania	7.3%	2017	2.8%	2017	13.3%	2017	21.4%	2017	30.6%	2017	24.0%	2014	6	2018
Luxembourg	5.5%	2017	2.1%	2017	15.4%	2017	6.4%	2017	13.4%	2017	11.9%	2014	9	2018
Malta	4.1%	2017	1.6%	2017	10.6%	2017	5.2%	2017	11.1%	2017	15.1%	2014	7	2018
Mexico	3.6%	2017	0.1%	2017	6.9%	2017	2.3%	2017	12.3%	2017	16.1%	2016	4	2018
Netherlands	4.9%	2017	2.0%	2017	8.9%	2017	6.6%	2017	8.2%	2017	18.5%	2014	7	2018
New Zealand	4.9%	2017	0.7%	2017	12.7%	2017	5.0%	2017	25.5%	2017	11.2%	2016	7	2018
Norway	4.3%	2017	1.3%	2017	10.4%	2017	7.3%	2017	20.6%	2015	8.3%	2014	9	2018
Poland	5.0%	2017	1.6%	2017	14.8%	2017	11.0%	2017	20.8%	2017	23.6%	2014	7	2018
Portugal	9.2%	2017	4.6%	2017	23.9%	2017	9.3%	2017	47.5%	2017	12.0%	2014	5	2018
Romania	5.1%	2017	2.1%	2017	18.3%	2017	6.3%	2017	55.8%	2017	24.4%	2014	4	2018
Slovakia	8.2%	2017	5.1%	2017	18.9%	2017	27.4%	2017	31.6%	2017	19.2%	2014	5	2018
Slovenia	6.7%	2017	3.2%	2017	11.2%	2017	10.5%	2017	10.6%	2017	18.5%	2014	8	2018
Spain	17.3%	2017	7.7%	2017	38.6%	2017	23.4%	2017	61.1%	2017	14.6%	2014	5	2018
Sweden	6.9%	2017	1.4%	2017	17.9%	2017	14.7%	2017	27.0%	2017	2.6%	2014	8	2018
Switzerland	5.0%	2017	1.8%	2017	8.1%	2017	8.5%	2017	8.7%	2017	9.4%	2014	8	2018
Turkey	11.1%	2017	2.4%	2017	20.5%	2017	8.9%	2017	12.6%	2017	0.5%	2014	5	2018
United Kingdom	4.4%	2017	1.1%	2017	12.1%	2017	5.4%	2017	14.6%	2017	21.3%	2014	7	2018
United States	4.4%	2017	0.7%	2017	9.2%	2017	8.3%	2017	6.3%	2017	24.9%	2016	5	2018

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
33.0%	2016	7	2018	28.7%	2017	8	2018	11.6%	2017	-0.321	2017	7	2018	8	2018
27.9%	2017	6	2018	30.6%	2017	6	2018	8.6%	2017	0.770	2017	7	2018	6	2018
26.0%	2017	6	2018	38.0%	2017	6	2018	14.1%	2017	0.395	2017	8	2018	7	2018
40.2%	2017	5	2018	23.8%	2017	3	2018	18.6%	2017	-0.870	2017	6	2018	5	2018
31.0%	2017	8	2018	26.3%	2017	9	2018	13.2%	2017	-0.292	2017	8	2018	8	2018
46.0%	2017	6	2018	15.8%	2017	6	2018	21.8%	2017	-0.419	2017	5	2018	5	2018
29.9%	2017	5	2018	18.5%	2017	3	2018	20.0%	2017	0.133	2017	5	2018	4	2018
30.8%	2017	8	2018	17.9%	2017	4	2018	22.0%	2017	0.103	2017	4	2018	5	2018
24.5%	2017	6	2018	20.0%	2017	4	2018	9.5%	2017	0.258	2017	6	2018	8	2018
27.6%	2017	8	2018	37.4%	2017	7	2018	10.0%	2017	-0.041	2017	9	2018	9	2018
31.6%	2017	7	2018	26.7%	2017	7	2018	12.8%	2017	-0.463	2017	10	2018	7	2018
25.3%	2017	8	2018	42.0%	2017	7	2018	13.6%	2017	0.783	2017	9	2018	9	2018
28.8%	2017	6	2018	39.0%	2017	6	2018	17.6%	2017	0.668	2017	10	2018	6	2018
29.1%	2017	8	2018	37.0%	2017	7	2018	9.1%	2017	1.117	2017	8	2018	6	2018
33.4%	2017	7	2018	18.3%	2017	5	2018	22.0%	2017	0.380	2017	5	2018	4	2018
28.1%	2017	4	2018	10.1%	2017	3	2018	15.5%	2017	-0.236	2017	5	2018	4	2018
24.1%	2016	6	2018	47.6%	2017	6	2018	4.7%	2017	-0.090	2017	9	2018	7	2018
30.6%	2017	9	2018	22.2%	2017	7	2018	14.1%	2017	-0.506	2017	7	2018	6	2018
34.4%	2017	5	2018	27.5%	2017	4	2018	17.3%	2017	-0.326	2017	7	2018	7	2018
32.7%	2017	7	2018	31.0%	2017	6	2018	27.9%	2017	0.274	2017	4	2018	6	2018
33.9%	2015	5	2018	9.3%	2017	3	2018	10.1%	2014	0.659	2017	5	2018	6	2018
35.5%	2017	6	2018	17.0%	2017	5	2018	22.2%	2013	2.575	2017	5	2018	6	2018
34.5%	2017	7	2018	16.0%	2017	5	2018	16.9%	2017	-0.642	2017	7	2018	4	2018
37.6%	2017	7	2018	21.3%	2017	7	2018	14.9%	2017	-0.570	2017	7	2018	7	2018
30.9%	2017	8	2018	28.3%	2017	8	2018	9.2%	2017	-0.079	2017	9	2018	7	2018
28.2%	2017	5	2018	11.9%	2017	4	2018	9.4%	2017	-0.244	2017	7	2018	6	2018
45.8%	2016	5	2018	42.6%	2017	3	2018	23.8%	2017	-0.422	2017	4	2018	5	2018
27.1%	2017	8	2018	36.0%	2017	7	2018	5.8%	2017	0.185	2017	7	2018	8	2018
34.9%	2014	9	2018	34.2%	2017	9	2018	13.3%	2017	-0.332	2017	8	2018	6	2018
26.1%	2017	9	2018	39.6%	2017	8	2018	7.2%	2017	0.195	2017	9	2018	9	2018
29.2%	2017	5	2018	28.0%	2017	3	2018	15.4%	2017	-0.439	2017	5	2018	5	2018
33.5%	2017	7	2018	34.8%	2017	8	2018	14.7%	2017	-0.388	2017	7	2018	5	2018
33.1%	2017	5	2018	20.7%	2017	6	2018	21.0%	2017	-0.800	2009	5	2018	4	2018
23.2%	2017	5	2018	20.0%	2017	3	2018	16.4%	2017	-0.209	2017	4	2018	5	2018
23.7%	2017	7	2018	36.7%	2017	4	2018	9.2%	2017	0.573	2017	9	2018	7	2018
34.1%	2017	7	2018	39.1%	2017	6	2018	18.5%	2017	0.041	2017	6	2018	7	2018
28.0%	2017	9	2018	43.6%	2017	7	2018	8.5%	2017	0.948	2017	10	2018	8	2018
30.1%	2017	8	2018	32.5%	2017	7	2018	8.3%	2017	0.919	2017	4	2018	10	2018
43.0%	2017	4	2018	14.6%	2017	7	2018	32.5%	2017	-0.160	2017	4	2018	5	2018
33.1%	2017	8	2018	32.0%	2017	6	2018	13.8%	2017	-0.193	2017	8	2018	8	2018
39.0%	2017	8	2018	19.4%	2017	5	2018	14.3%	2017	2.143	2017	7	2018	7	2018

## TABLE 14C SJI 2018 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	4	2018	22.60	2016	0.78%	2008	1.47%	2008	40.67%	2017	109	2017	9.3%	2014
Austria	6	2018	9.11	2016	0.99%	2015	2.06%	2015	78.49%	2017	274	2017	35.4%	2014
Belgium	6	2018	10.22	2016	0.55%	2015	1.91%	2015	103.40%	2017	285	2017	9.1%	2014
Bulgaria	6	2018	8.29	2016	0.20%	2015	0.76%	2015	23.29%	2017	36	2017	17.0%	2014
Canada	7	2018	19.60	2016	0.54%	2015	1.16%	2015	90.09%	2017	271	2017	22.0%	2014
Chile	6	2018	6.25	2013	0.16%	2015	0.22%	2015	23.54%	2017	28	2017	26.7%	2014
Croatia	4	2018	5.84	2016	0.31%	2015	0.53%	2015	77.66%	2017	132	2017	33.7%	2014
Cyprus	4	2018	7.47	2016	0.24%	2015	0.24%	2015	95.75%	2017	224	2017	9.4%	2014
Czechia	6	2018	12.28	2016	0.62%	2015	1.31%	2015	34.66%	2017	79	2017	14.8%	2014
Denmark	8	2018	8.96	2016	0.92%	2015	2.14%	2015	34.78%	2017	105	2017	30.3%	2014
Estonia	9	2018	14.95	2016	0.68%	2015	0.79%	2015	8.75%	2017	17	2017	25.3%	2014
Finland	8	2018	10.56	2016	0.84%	2015	2.05%	2015	61.29%	2017	168	2017	41.2%	2014
France	6	2018	6.99	2016	0.77%	2014	1.46%	2014	98.50%	2017	230	2017	13.4%	2014
Germany	8	2018	11.06	2016	0.81%	2015	2.10%	2015	63.86%	2017	243	2017	13.4%	2014
Greece	4	2018	8.51	2016	0.51%	2015	0.45%	2015	179.28%	2017	345	2017	16.1%	2014
Hungary	5	2018	6.23	2016	0.47%	2015	0.89%	2015	73.25%	2017	150	2017	15.7%	2014
Iceland	6	2018	13.83	2016	0.68%	2015	1.52%	2015	43.08%	2017	117	2017	76.3%	2014
Ireland	7	2018	12.88	2016	0.31%	2015	0.88%	2015	68.54%	2017	240	2017	8.5%	2014
Israel	6	2018	9.59	2015	0.64%	2015	3.62%	2015	60.40%	2017	79	2017	3.7%	2014
Italy	5	2018	7.13	2016	0.51%	2015	0.83%	2015	131.28%	2017	373	2017	17.1%	2014
Japan	6	2018	10.28	2016	0.51%	2015	2.77%	2015	234.98%	2017	781	2017	5.6%	2014
Korea	5	2018	13.53	2015	1.00%	2015	3.22%	2015	39.76%	2017	117	2017	2.8%	2014
Latvia	9	2018	5.75	2016	0.20%	2015	0.43%	2015	39.98%	2017	71	2017	40.2%	2014
Lithuania	8	2018	7.04	2016	0.37%	2015	0.67%	2015	39.42%	2017	86	2017	27.7%	2014
Luxembourg	7	2018	17.27	2016	0.61%	2015	0.67%	2015	22.96%	2017	146	2017	6.9%	2014
Malta	4	2018	4.16	2016	0.24%	2015	0.50%	2015	50.21%	2017	151	2017	3.9%	2014
Mexico	5	2018	5.60	2015	0.37%	2015	0.16%	2015	54.00%	2017	40	2017	9.8%	2014
Netherlands	5	2018	11.47	2016	0.66%	2015	1.32%	2015	56.96%	2017	189	2017	5.7%	2014
New Zealand	6	2018	16.86	2016	0.46%	2015	0.77%	2015	31.61%	2017	63	2017	30.3%	2014
Norway	8	2018	10.24	2016	0.87%	2015	1.06%	2015	36.75%	2017	150	2017	57.2%	2014
Poland	4	2018	10.51	2016	0.42%	2015	0.58%	2015	50.57%	2017	100	2017	11.6%	2014
Portugal	6	2018	6.39	2016	0.55%	2015	0.69%	2015	124.76%	2017	273	2017	30.5%	2014
Romania	5	2018	5.80	2016	0.20%	2015	0.29%	2015	36.86%	2017	58	2017	24.3%	2014
Slovakia	5	2018	7.76	2016	0.37%	2015	0.80%	2015	50.94%	2017	109	2017	12.2%	2014
Slovenia	8	2018	8.56	2016	0.44%	2015	1.76%	2015	74.09%	2017	171	2017	22.3%	2014
Spain	5	2018	7.02	2016	0.50%	2015	0.72%	2015	98.12%	2017	249	2017	17.4%	2014
Sweden	9	2018	5.34	2016	0.93%	2013	2.37%	2013	40.83%	2017	120	2017	49.7%	2014
Switzerland	9	2018	5.75	2016	0.82%	2015	2.55%	2015	41.81%	2017	174	2017	23.4%	2014
Turkey	4	2018	6.24	2016	0.24%	2015	0.64%	2015	28.26%	2017	33	2017	11.6%	2014
United Kingdom	7	2018	7.42	2016	0.46%	2015	1.21%	2015	87.14%	2017	217	2017	7.4%	2014
United States	4	2018	20.10	2016	0.69%	2015	2.03%	2015	106.23%	2017	337	2017	8.8%	2014

E1	0	E1	1	E1:	2	F1		F2	2	F3		F4		F5		F6	
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
23.7	2017	42.47	2016	6.01	2015	7	2018	3.1	2016	72.7	2015	0.90	2017	18.9%	2015	3.50	2015
28.8	2017	31.07	2016	-3.13	2015	7		3.0	2016	72.1	2015	0.78	2017	18.9%	2016	5.09	2015
28.9	2017	23.02	2016	-5.47	2015	7	2018	3.1	2016	71.4	2015	0.69	2017	15.9%	2016	3.02	2015
32.0	2017	12.21	2016	-0.31	2015	4	2018	6.7	2016	66.2	2015	0.65	2017	48.0%	2016	4.05	2015
25.4	2017	34.26	2016	7.41	2015	8	2018	4.6	2016	73.0	2015	0.86	2017	14.6%	2016	2.55	2015
16.2	2017	16.39	2016	-0.78	2015	7	2018	6.6	2016	69.6	2015	0.72	2017	32.1%	2016	1.03	2009
30.1	2017	12.55	2016	-0.78	2015	4	2018	4.0	2016	68.4	2015	0.58	2017	15.4%	2016	3.19	2015
19.2	2017	19.93	2016	-3.17	2015	6	2018	2.2	2016	73.1	2015	0.75	2017	44.9%	2016	2.62	2015
29.0	2017	16.91	2016	-2.99	2015	7	2018	2.6	2016	68.8	2015	0.52	2017	15.0%	2016	3.69	2013
30.8	2017	24.29	2016	-2.78	2015	8	2018	3.7	2016	71.5	2015	0.79	2017	13.7%	2016	3.68	2015
30.3	2017	28.64	2016	2.96	2015	8	2018	2.3	2016	68.0	2015	0.42	2017	22.7%	2016	4.88	2015
34.0	2017	35.74	2016	6.86	2015	7	2018	1.9	2016	71.6	2015	0.69	2017	20.4%	2016	3.33	2015
31.7	2017	21.70	2016	-1.98	2015	7	2018	3.5	2016	73.2	2015	0.87	2017	9.8%	2016	3.34	2015
32.8	2017	21.89	2016	-3.26	2015	8	2018	3.2	2016	71.3	2015	0.63	2017	12.4%	2016	4.14	2015
31.2	2017	26.28	2016	-2.70	2015	4	2018	4.2	2016	71.8	2015	0.92	2017	34.3%	2016	6.32	2015
27.7	2017	14.54	2016	-1.01	2015	3	2018	4.1	2016	66.4	2015	0.74	2017	29.7%	2016	3.10	2015
22.0	2017	31.43	2012	-4.26	2015	6	2018	1.7	2016	73.0	2015	0.83	2016	16.9%	2016	3.78	2015
21.6	2017	20.81	2016	-1.77	2015	5	2018	3.0	2016	72.0	2015	0.79	2017	13.0%	2016	3.12	2015
19.4	2017	21.69	2016	-5.49	2015	8	2018	2.9	2016	72.7	2015	0.90	2017	23.0%	2016	3.07	2015
36.3	2017	19.19	2016	-3.50	2015	7	2018	2.9	2016	73.0	2015	0.91	2017	23.1%	2016	3.84	2015
45.0	2017	24.07	2016	-3.86	2015	7	2018	1.9	2016	74.7	2015	0.71	2016	12.9%	2015	2.36	2014
19.2	2017	25.67	2016	-5.19	2015	8	2018	2.9	2016	72.7	2015	0.62	2017	33.3%	2016	2.24	2015
30.5	2017	22.24	2016	2.30	2015	4	2018	3.9	2016	65.9	2015	0.41	2017	44.6%	2016	3.20	2015
28.7	2017	34.97	2016	-0.12	2015	7	2018	3.8	2016	65.5	2015	0.40	2017	32.3%	2016	4.64	2015
20.7	2017	102.19	2016	-11.46	2015	8	2018	2.1	2016	72.6	2015	0.86	2017	11.2%	2016	2.91	2015
29.4	2017	25.44	2016	-4.60	2015	7	2018	5.7	2016	72.2	2015	0.67	2017	37.5%	2015	3.68	2015
10.3	2017	8.66	2016	-1.40	2015	5	2018	12.2	2016	67.4	2015	0.89	2017	40.4%	2016	2.35	2015
29.0	2017	26.31	2016	-4.87	2015	6	2018	3.4	2016	72.0	2015	0.73	2017	11.5%	2016	3.49	2015
23.6	2017	24.16	2016	4.27	2015	8	2018	4.5	2016	72.6	2015	0.96	2017	13.6%	2016	3.01	2015
25.7	2017	37.28	2016	1.49	2015	7	2018	2.1	2016	72.9	2015	0.81	2017	14.5%	2016	4.40	2015
24.5	2017	17.08	2016	-2.22	2015	5	2018	4.1	2016	68.1	2015	0.67	2017	22.9%	2016	2.33	2015
33.2	2017	16.67	2016	-2.70	2015	6	2018	3.1	2016	71.8	2015	0.63	2017	27.8%	2016	4.61	2015
26.7		16.41	2016	-0.27		4	2018	7.2	2016	66.3	2015	0.89	2017	20.8%	2016	2.77	2015
21.7	2017	44.16	2016	-1.43	2015	4	2018	4.8	2016	68.0	2015	0.78	2017	17.8%	2016	3.45	2015
28.9	2017		2016	-2.68	2015	5	2018	1.8	2016	70.2	2015	0.67	2017	12.0%	2016	2.83	2015
	2017	21.66	2016	-2.66	2015		2018	2.6	2016	73.5	2015	0.85	2017	23.8%	2016	3.85	2015
	2017		2016		2015		2018	2.4		72.3		0.77	2017	15.2%	2016	4.27	2015
	2017		2016		2015		2018	3.8			2015	0.76		29.6%	2016	4.20	2015
	2017		2016		2015	7	2018		2016		2015		2017	16.5%	2016	1.80	2015
	2017		2016		2015	6		3.7		71.7		0.75	2017	15.1%	2016	2.75	2015
23.5	2017	30.59	2016	-4.60	2015	5	2018	5.7	2016	68.6	2015	0.77	2017	11.1%	2016	2.58	2015

## TABLE 15A SJI 2019 Raw Data

COUNTRY	A	1	A	2	A	3	В	1	В	2	В	3	В	4
	VALUE	DATE												
Australia	12.1%	2016	12.5%	2016	23.2%	2016	6	2019	4.52	2015	0.23%	2016	18.1%	2018
Austria	8.8%	2018	11.3%	2018	8.0%	2018	6	2019	6.57	2015	0.50%	2016	14.7%	2018
Belgium	9.0%	2018	12.4%	2018	5.9%	2018	6	2019	7.77	2015	0.71%	2016	21.8%	2018
Bulgaria	15.4%	2018	20.9%	2018	17.1%	2018	4	2019	8.17	2015	0.95%	2016	17.4%	2018
Canada	12.1%	2017	11.6%	2017	12.2%	2017	8	2019	2.76	2015	0.54%	2014	8.4%	2018
Chile	16.5%	2017	21.5%	2017	17.6%	2017	5	2019	4.20	2015	0.61%	2016	32.6%	2017
Croatia	13.6%	2018	14.3%	2018	19.9%	2018	6	2019	4.47	2015	0.66%	2011	14.9%	2018
Cyprus	8.4%	2018	11.1%	2018	9.1%	2018	7	2019	2.01	2015	0.33%	2016	17.8%	2018
Czechia	4.4%	2018	6.1%	2018	4.3%	2018	6	2019	9.48	2015	0.49%	2016	6.1%	2018
Denmark	6.8%	2018	5.3%	2018	1.2%	2018	7	2019	3.22	2015	1.25%	2012	18.4%	2018
Estonia	13.9%	2018	9.2%	2018	28.1%	2018	9	2019	2.24	2015	0.35%	2013	10.8%	2018
Finland	5.4%	2018	4.2%	2018	3.9%	2018	8	2019	3.70	2015	0.76%	2016	10.8%	2018
France	6.7%	2018	9.6%	2018	2.3%	2018	7	2019	10.49	2015	0.69%	2016	20.6%	2018
Germany	9.8%	2018	7.6%	2018	9.7%	2018	8	2019	4.86	2015	0.46%	2016	13.4%	2018
Greece	12.9%	2018	16.2%	2018	6.3%	2018	4	2019	4.48	2015	0.27%	2016	26.4%	2018
Hungary	8.0%	2018	10.8%	2018	3.9%	2018	3	2019	10.25	2015	0.77%	2016	15.1%	2018
Iceland	4.0%	2016	4.6%	2016	1.3%	2016	6	2019	1.35	2015	0.85%	2016	22.0%	2018
Ireland	8.2%	2017	9.2%	2017	5.1%	2017	6	2019	4.49	2015	0.07%	2015	16.8%	2018
Israel	17.9%	2017	23.7%	2017	19.9%	2017	7	2019	4.16	2015	0.83%	2016	12.6%	2017
Italy	13.6%	2018	18.4%	2018	7.6%	2018	5	2019	3.63	2015	0.45%	2016	38.3%	2018
Japan	15.7%	2015	13.9%	2015	19.6%	2015	7	2019	4.13	2015	0.10%	2016	19.7%	2010
Korea	17.4%	2017	14.5%	2017	43.8%	2017	8	2019	4.23	2015	0.42%	2016	11.8%	2018
Latvia	16.3%	2018	12.7%	2018	29.4%	2018	5	2019	2.64	2015	0.80%	2016	9.3%	2018
Lithuania	15.8%	2018	17.0%	2018	22.6%	2018	7	2019	4.22	2015	0.63%	2016	5.2%	2018
Luxembourg	11.9%	2018	15.1%	2018	8.8%	2018	6	2019	7.54	2015	0.57%	2015	21.4%	2018
Malta	8.7%	2018	13.3%	2018	8.3%	2018	5	2019	5.30	2015	0.53%	2015	46.7%	2018
Mexico	16.6%	2016	19.8%	2016	24.7%	2016	5	2019	2.54	2015	0.53%	2011	60.9%	2018
Netherlands	7.0%	2018	7.6%	2018	3.6%	2018	6	2019	4.89	2015	0.35%	2016	21.0%	2018
New Zealand	10.9%	2014	14.1%	2014	10.6%	2014	8	2019	5.19	2015	0.48%	2016	19.5%	2018
Norway	7.4%	2018	7.2%	2018	1.2%	2018	7	2019	1.98	2015	0.74%	2016	17.0%	2018
Poland	9.0%	2018	7.2%	2018	7.2%	2018	4	2019	4.80	2015	0.64%	2016	7.6%	2018
Portugal	10.8%	2018	12.8%	2018	8.7%	2018	6	2019	3.98	2015	0.39%	2015	50.2%	2018
Romania	17.2%	2018	24.0%	2018	14.0%	2018	4	2019	5.57	2015	0.31%	2016	21.5%	2018
Slovakia	7.8%	2017	13.4%	2017	2.2%	2017	4	2019	7.57	2015	0.49%	2015	8.3%	2018
Slovenia	6.9%	2018	5.1%	2018	9.5%	2018	7	2019	4.28	2015	0.52%	2016	11.9%	2018
Spain	14.6%	2018	19.1%	2018	9.2%	2018	7	2019	3.22	2015	0.46%	2016	39.9%	2018
Sweden	9.5%	2018	12.3%	2018	4.8%	2018	7	2019	4.57	2015	1.29%	2016	14.4%	2018
Switzerland	8.7%	2018	11.5%	2018	14.0%	2018	8	2019	5.06	2015	0.41%	2016	11.6%	2018
Turkey	14.9%	2017	23.2%	2017	11.7%	2017	3	2019	1.83	2015	0.25%	2016	62.6%	2018
United Kingdom	9.7%	2017	11.1%	2017	8.4%	2017	7	2019	3.10	2015	0.20%	2016	19.6%	2018
United States	17.8%	2017	21.2%	2017	23.1%	2017	6	2019	2.52	2015	0.32%	2016	9.2%	2018

В	5	В	6	В	7	с	1	C	2	С	3	C	4	C	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
0.051	2018	11.1%	2015	4.07	2015	73.8%	2018	63.8%	2018	-0.04	2018	0.02	2018	0.88	2018
0.602	2018	13.5%	2015	4.12	2015	73.0%	2018	54.0%	2018	-0.09	2018	1.54	2018	0.89	2018
-0.075	2018	12.7%	2015	5.52	2015	64.5%	2018	50.3%	2018	-0.12	2018	1.45	2018	0.89	2018
-0.067	2018	29.6%	2015	3.14	2015	67.7%	2018	60.7%	2018	-0.04	2018	0.30	2012	0.89	2018
-0.289	2018	5.9%	2015	3.26	2015	73.8%	2018	63.0%	2018	-0.03	2018	0.12	2018	0.93	2018
-0.007	2017	23.3%	2015	2.82	2015	62.6%	2018	65.6%	2018	0.25	2015	-0.27	2015	0.74	2018
0.285	2018	14.5%	2015	2.84	2015	60.6%	2018	42.8%	2018	0.03	2018	-0.08	2018	0.85	2018
-0.081	2018	26.1%	2015	2.34	2015	68.6%	2018	60.9%	2018	-0.02	2018	0.02	2018	0.88	2018
0.510	2018	13.7%	2015	6.95	2015	74.8%	2018	65.1%	2018	0.06	2018	0.09	2018	0.83	2018
-0.209	2018	7.5%	2015	3.99	2015	75.4%	2018	70.7%	2018	-0.14	2018	1.28	2018	0.93	2018
-0.479	2018	4.7%	2015	4.95	2015	74.8%	2018	68.9%	2018	-0.07	2018	0.52	2018	0.91	2018
-0.388	2018	6.3%	2015	4.30	2015	72.1%	2018	65.4%	2018	-0.15	2018	0.99	2018	0.96	2018
0.040	2018	14.8%	2015	7.36	2015	65.4%	2018	52.1%	2018	-0.12	2018	0.76	2018	0.90	2018
0.161	2018	9.8%	2015	5.06	2015	75.9%	2018	71.4%	2018	-0.10	2018	1.07	2018	0.90	2018
-0.066	2018	20.7%	2015	2.77	2015	54.9%	2018	41.1%	2018	-0.04	2018	0.54	2018	0.70	2018
0.228	2018	18.5%	2015	5.58	2015	69.2%	2018	54.4%	2018	0.04	2018	0.24	2018	0.82	2018
-0.148	2018	13.2%	2015	2.28	2015	85.1%	2018	80.7%	2018	-0.03	2018	1.04	2018	0.94	2018
-0.298	2018	6.8%	2015	5.08	2015	68.6%	2018	60.4%	2018	0.04	2018	0.33	2018	0.85	2018
-0.093	2017	20.2%	2015	2.73	2015	69.0%	2018	67.3%	2018	0.18	2018	-0.19	2018	0.93	2018
-0.102	2018	12.2%	2015	3.26	2015	58.5%	2018	53.7%	2018	0.05	2018	0.33	2018	0.73	2018
0.145	2010	5.6%	2015	5.63	2015	76.8%	2018	75.2%	2018	-0.07	2013	0.29	2013	0.83	2018
0.563	2018	7.7%	2015	4.03	2015	66.6%	2018	66.8%	2018	0.16	2013	0.29	2013	0.75	2018
-0.451	2018	10.5%	2015	3.32	2015	71.8%	2018	65.4%	2018	-0.04	2018	0.01	2018	0.95	2018
-0.433	2018	15.3%	2015	3.38	2015	72.4%	2018	68.5%	2018	-0.02	2018	0.17	2018	0.98	2018
0.014	2018	17.0%	2015	5.81	2015	67.1%	2018	40.5%	2018	0.16	2018	0.42	2018	0.90	2018
0.004	2018	21.9%	2015	3.03	2015	71.4%	2018	49.7%	2018	0.14	2018	0.26	2018	0.75	2018
0.021	2018	33.8%	2015	1.76	2015	61.5%	2018	55.3%	2018	-0.16	2018	0.21	2018	0.58	2018
0.029	2018	10.9%	2015	4.30	2015	77.2%	2018	67.7%	2018	-0.18	2018	1.06	2018	0.89	2018
-0.062	2018	10.6%	2015	4.01	2015	77.5%	2018	77.9%	2018	-0.01	2018	-0.11	2018	0.89	2018
-0.090	2018	8.9%	2015	3.05	2015	74.8%	2018	72.0%	2018	-0.09	2018	1.72	2018	0.94	2018
-0.076	2018	8.3%	2015	4.60	2015	67.4%	2018	48.9%	2018	0.08	2018	0.21	2018	0.82	2018
-0.174	2018	10.7%	2015	4.98	2015	69.7%	2018	59.2%	2018	0.09	2018	0.20	2018	0.92	2018
0.166	2018	24.3%	2015	2.95	2015	64.8%	2018	46.3%	2018	0.03	2018	0.12	2012	0.77	2018
0.257	2018	20.1%	2015	3.96	2015	67.6%	2018	54.2%	2018	0.07	2018	0.18	2015	0.83	2018
0.125	2018	8.2%	2015	3.55	2015	71.1%	2018	47.0%	2018	-0.07	2018	0.27	2018	0.91	2018
-0.136	2018	10.3%	2015	4.87	2015	62.4%	2018	52.2%	2018	-0.02	2018	0.46	2018	0.84	2018
-0.148	2018	11.4%	2015	3.79	2015	77.5%	2018	77.9%	2018	-0.17	2018	3.03	2018	0.96	2018
0.189	2018	10.1%	2015	4.66	2015	80.1%	2018	72.6%	2018	-0.06	2018	1.32	2018	0.90	2018
0.196	2018	31.2%	2015	1.92	2015	52.0%	2018	35.3%	2018	-0.09	2018	0.09	2018	0.46	2018
-0.050	2018	10.1%	2015	3.28	2015	74.7%	2018	65.3%	2018	-0.02	2018	0.18	2018	0.89	2018
-0.149	2018	13.6%	2015	3.66	2015	70.7%	2018	63.1%	2018	0.03	2018	-0.15	2018	0.86	2018

## TABLE 15B SJI 2019 Raw Data

COUNTRY	С	6	С	7	С	8	С	9	C1	10	C1	1	D	1
	VALUE	DATE												
Australia	5.5%	2018	1.0%	2018	11.8%	2018	7.1%	2018	28.5%	2018	15.4%	2018	5	2019
Austria	4.9%	2018	1.4%	2018	9.4%	2018	10.9%	2018	10.5%	2018	14.8%	2014	7	2019
Belgium	6.0%	2018	2.9%	2018	15.8%	2018	11.9%	2018	6.8%	2018	3.8%	2014	6	2019
Bulgaria	5.3%	2018	3.1%	2018	12.7%	2018	15.2%	2018	56.9%	2018	18.2%	2014	4	2019
Canada	5.9%	2018	0.6%	2018	11.1%	2018	8.9%	2018	21.8%	2018	22.0%	2017	8	2019
Chile	7.4%	2018	1.0%	2018	17.6%	2018	6.3%	2018	47.6%	2018	10.6%	2017	5	2019
Croatia	8.5%	2018	3.4%	2018	23.7%	2018	11.4%	2018	33.8%	2018	23.1%	2014	4	2019
Cyprus	8.6%	2018	2.7%	2018	20.2%	2018	9.1%	2018	63.9%	2018	19.3%	2014	6	2019
Czechia	2.3%	2018	0.7%	2018	6.7%	2018	9.4%	2018	6.5%	2018	18.7%	2014	6	2019
Denmark	5.1%	2018	1.1%	2018	9.4%	2018	6.4%	2018	12.1%	2018	8.6%	2014	8	2019
Estonia	5.4%	2018	1.3%	2018	11.8%	2018	8.4%	2018	5.8%	2018	22.8%	2014	6	2019
Finland	7.5%	2018	1.6%	2018	17.0%	2018	11.5%	2018	32.1%	2018	5.3%	2014	7	2019
France	9.1%	2018	3.8%	2018	20.8%	2018	14.3%	2018	41.8%	2018	8.8%	2014	7	2019
Germany	3.5%	2018	1.5%	2018	6.2%	2018	8.5%	2018	10.2%	2018	22.5%	2014	8	2019
Greece	19.5%	2018	13.7%	2018	39.9%	2018	21.9%	2018	70.1%	2018	21.7%	2014	4	2019
Hungary	3.7%	2018	1.4%	2018	10.2%	2018	8.8%	2018	22.9%	2018	17.8%	2014	4	2019
Iceland	2.8%	2018	0.3%	2018	6.1%	2018	2.7%	2018	17.4%	2018	7.5%	2014	7	2019
Ireland	5.9%	2018	2.2%	2018	13.8%	2018	8.4%	2018	17.7%	2018	21.6%	2014	7	2019
Israel	4.1%	2018	0.3%	2018	7.2%	2018	4.8%	2018	7.0%	2018	22.6%	2017	3	2019
Italy	10.8%	2018	6.4%	2018	32.2%	2018	13.5%	2018	65.7%	2018	9.4%	2014	6	2019
Japan	2.6%	2018	0.8%	2018	3.8%	2018	0.0%	2015	17.5%	2018	12.3%	2017	5	2019
Korea	3.9%	2018	0.1%	2018	10.5%	2018	3.2%	2018	10.0%	2018	22.3%	2017	6	2019
Latvia	7.6%	2018	3.2%	2018	12.2%	2018	17.0%	2018	33.1%	2018	25.5%	2014	5	2019
Lithuania	6.3%	2018	2.0%	2018	11.1%	2018	19.0%	2018	24.4%	2018	24.0%	2014	6	2019
Luxembourg	5.6%	2018	1.4%	2018	14.2%	2018	6.5%	2018	12.5%	2018	11.9%	2014	9	2019
Malta	3.8%	2018	1.2%	2018	9.2%	2018	4.2%	2018	9.6%	2018	15.1%	2014	7	2019
Mexico	3.4%	2018	0.1%	2018	6.9%	2018	2.2%	2018	10.3%	2018	15.7%	2018	4	2019
Netherlands	3.8%	2018	1.4%	2018	7.2%	2018	5.1%	2018	7.0%	2018	18.5%	2014	7	2019
New Zealand	4.5%	2018	0.6%	2018	11.5%	2018	4.6%	2018	26.0%	2018	8.5%	2018	7	2019
Norway	3.9%	2018	1.1%	2018	9.7%	2018	6.3%	2018	20.6%	2018	8.3%	2014	9	2019
Poland	3.9%	2018	1.1%	2018	11.7%	2018	9.3%	2018	15.9%	2018	23.6%	2014	7	2019
Portugal	7.3%	2018	3.2%	2018	20.3%	2018	6.9%	2018	45.2%	2018	12.0%	2014	5	2019
Romania	4.3%	2018	1.9%	2018	16.2%	2018	5.4%	2018	54.2%	2018	24.4%	2014	4	2019
Slovakia	6.6%	2018	4.1%	2018	14.9%	2018	27.6%	2018	26.5%	2018	19.2%	2014	5	2019
Slovenia	5.2%	2018	2.2%	2018	8.8%	2018	8.7%	2018	6.5%	2018	18.5%	2014	8	2019
Spain	15.4%	2018	6.4%	2018	34.3%	2018	20.5%	2018	55.8%	2018	14.6%	2014	6	2019
Sweden	6.5%	2018	1.3%	2018	16.8%	2018	16.1%	2018	23.9%	2018	2.6%	2014	7	2019
Switzerland	4.9%	2018	1.8%	2018	7.9%	2018	8.4%	2018	8.3%	2018	9.4%	2014	8	2019
Turkey	11.1%	2018	2.5%	2018	20.2%	2018	9.1%	2018	12.7%	2018	0.5%	2014	5	2019
United Kingdom	4.1%	2018	1.1%	2018	11.3%	2018	5.0%	2018	13.7%	2018	21.3%	2014	7	2019
United States	3.9%	2018	0.5%	2018	8.6%	2018	6.6%	2018	4.4%	2018	24.5%	2017	5	2019

D	2	D	3	D	4	D	5	D	6	D	7	E	1	E	2
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE								
33.0%	2016	7	2019	28.7%	2018	8	2019	11.9%	2018	-0.321	2017	7	2019	8	2019
26.8%	2018	6	2019	34.4%	2018	5	2019	8.8%	2018	0.699	2018	7	2019	6	2019
25.6%	2018	6	2019	38.0%	2018	6	2019	13.5%	2018	0.488	2018	8	2019	7	2019
39.6%	2018	5	2019	23.8%	2018	3	2019	18.2%	2018	-0.760	2018	6	2019	5	2019
31.0%	2017	8	2019	27.0%	2018	9	2019	13.4%	2018	-0.292	2017	8	2019	8	2019
46.0%	2017	6	2019	22.6%	2018	6	2019	21.8%	2017	-0.419	2017	5	2019	5	2019
29.7%	2018	4	2019	18.5%	2018	3	2019	18.3%	2018	0.136	2018	5	2019	4	2019
29.1%	2018	8	2019	17.9%	2018	4	2019	18.4%	2018	0.108	2018	4	2019	5	2019
24.0%	2018	6	2019	22.0%	2018	4	2019	8.7%	2018	0.370	2018	6	2019	8	2019
27.8%	2018	8	2019	37.4%	2018	7	2019	9.5%	2018	0.023	2018	9	2019	9	2019
30.6%	2018	8	2019	26.7%	2018	7	2019	11.5%	2018	-0.545	2018	10	2019	7	2019
25.9%	2018	8	2019	42.0%	2018	7	2019	12.1%	2018	0.886	2018	8	2019	9	2019
28.5%	2018	6	2019	39.6%	2018	6	2019	17.1%	2018	0.688	2018	10	2019	7	2019
31.1%	2018	8	2019	30.7%	2018	8	2019	8.6%	2018	1.164	2018	8	2019	6	2019
32.3%	2018	7	2019	18.7%	2018	5	2019	20.7%	2018	0.396	2018	5	2019	4	2019
28.7%	2018	4	2019	12.6%	2018	3	2019	14.5%	2018	-0.281	2018	5	2019	4	2019
24.1%	2016	6	2019	38.1%	2018	6	2019	5.9%	2018	-0.017	2018	9	2019	7	2019
30.6%	2017	9	2019	22.2%	2018	7	2019	13.3%	2018	-0.498	2018	7	2019	6	2019
34.4%	2017	5	2019	27.5%	2018	4	2019	17.0%	2018	-0.326	2017	7	2019	7	2019
33.4%	2018	6	2019	35.7%	2018	5	2019	27.1%	2018	0.300	2018	4	2019	5	2019
33.9%	2015	5	2019	10.1%	2018	3	2019	10.1%	2014	0.659	2017	6	2019	6	2019
35.5%	2017	6	2019	17.0%	2018	5	2019	22.2%	2013	2.575	2017	5	2019	6	2019
35.6%	2018	7	2019	16.0%	2018	5	2019	13.2%	2018	-0.617	2018	7	2019	4	2019
36.9%	2018	7	2019	21.3%	2018	7	2019	13.0%	2018	-0.538	2018	7	2019	7	2019
33.2%	2018	8	2019	28.3%	2018	8	2019	8.3%	2018	-0.192	2018	9	2019	7	2019
28.7%	2018	5	2019	11.9%	2018	4	2019	8.0%	2018	-0.300	2018	7	2019	6	2019
45.8%	2016	5	2019	48.2%	2018	3	2019	23.2%	2018	-0.422	2017	4	2019	5	2019
27.4%	2018	7	2019	36.0%	2018	7	2019	6.3%	2018	0.246	2018	7	2019	8	2019
34.9%	2014	8	2019	38.3%	2018	8	2019	12.4%	2018	-0.332	2017	8	2019	6	2019
24.8%	2018	9	2019	41.4%	2018	8	2019	7.4%	2018	0.124	2018	9	2019	9	2019
27.8%	2018	5	2019	28.0%	2018	3	2019	14.0%	2018	-0.585	2018	5	2019	5	2019
32.1%	2018	7	2019	34.8%	2018	9	2019	13.1%	2018	-0.357	2018	7	2019	5	2019
35.1%	2018	5	2019	20.7%	2018	6	2019	19.9%	2018	-0.560	2018	5	2019	4	2019
23.2%	2017	5	2019	20.0%	2018	3	2019	14.1%	2018	-0.209	2017	4	2019	5	2019
23.4%	2018	7	2019	24.4%	2018	5	2019	9.9%	2018	0.833	2018	9	2019	7	2019
33.2%	2018	7	2019	39.1%	2018	7	2019	17.7%	2018	0.049	2018	7	2019	7	2019
27.0%	2018	9	2019	46.1%	2018	7	2019	8.7%	2018	1.053	2018	10	2019	8	2019
29.7%	2018	8	2019	32.5%	2018	7	2019	7.1%	2018	0.954	2018	4	2019	10	2019
43.0%	2017	4	2019	17.4%	2018	7	2019	32.2%	2018	-0.166	2018	4	2019	5	2019
33.1%	2017	7	2019	32.2%	2018	6	2019	14.2%	2018	-0.210	2018	8	2019	8	2019
39.0%	2017	8	2019	19.6%	2018	5	2019	14.8%	2018	2.143	2017	7	2019	7	2019

## TABLE 15C SJI 2019 Raw Data

COUNTRY	E	3	E	4	E	5	E	6	E	7	E	8	E	9
	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
Australia	4	2019	22.52	2017	0.78%	2008	1.47%	2008	40.67%	2018	112	2018	9.2%	2015
Austria	6	2019	9.35	2017	0.93%	2017	2.23%	2017	74.24%	2018	270	2018	34.4%	2015
Belgium	6	2019	10.07	2017	0.55%	2015	1.91%	2015	101.39%	2018	289	2018	9.2%	2015
Bulgaria	6	2019	8.67	2017	0.17%	2016	0.61%	2016	20.52%	2018	33	2018	17.7%	2015
Canada	7	2019	19.59	2017	0.49%	2018	1.06%	2018	90.63%	2018	279	2018	22.0%	2015
Chile	6	2019	6.25	2013	0.17%	2016	0.19%	2016	25.56%	2018	33	2018	24.9%	2015
Croatia	4	2019	6.07	2017	0.36%	2016	0.50%	2016	73.86%	2018	133	2018	33.1%	2015
Cyprus	4	2019	7.58	2017	0.22%	2016	0.31%	2016	102.54%	2018	253	2018	9.9%	2015
Czechia	6	2019	12.15	2017	0.62%	2017	1.17%	2017	32.96%	2018	78	2018	14.8%	2015
Denmark	9	2019	8.54	2017	0.83%	2017	2.22%	2017	34.27%	2018	107	2018	33.2%	2015
Estonia	9	2019	15.85	2017	0.47%	2016	0.78%	2016	8.05%	2018	17	2018	27.5%	2015
Finland	8	2019	10.05	2017	0.79%	2016	1.95%	2016	60.52%	2018	174	2018	43.2%	2015
France	7	2019	7.04	2017	0.77%	2014	1.46%	2014	98.59%	2018	241	2018	13.5%	2015
Germany	6	2019	10.97	2017	0.83%	2016	2.09%	2016	59.75%	2018	233	2018	14.2%	2015
Greece	4	2019	8.87	2017	0.43%	2017	0.70%	2017	183.26%	2018	371	2018	17.2%	2015
Hungary	5	2019	6.52	2017	0.32%	2016	0.88%	2016	69.39%	2018	152	2018	15.6%	2015
Iceland	7	2019	13.85	2017	0.73%	2017	1.37%	2017	35.43%	2018	102	2018	77.0%	2015
Ireland	7	2019	12.64	2017	0.31%	2015	0.88%	2015	65.20%	2018	250	2018	9.1%	2015
Israel	6	2019	9.59	2015	0.60%	2016	3.80%	2016	59.59%	2018	81	2018	3.7%	2015
Italy	5	2019	7.07	2017	0.48%	2016	0.89%	2016	132.09%	2018	392	2018	16.5%	2015
Japan	6	2019	10.17	2017	0.48%	2017	2.72%	2017	237.12%	2018	816	2018	6.3%	2015
Korea	4	2019	13.53	2015	0.98%	2017	3.57%	2017	40.71%	2018	126	2018	2.7%	2015
Latvia	9	2019	5.82	2017	0.21%	2016	0.23%	2016	37.58%	2018	71	2018	38.1%	2015
Lithuania	8	2019	7.22	2017	0.33%	2016	0.51%	2016	35.91%	2018	83	2018	29.0%	2015
Luxembourg	8	2019	17.16	2017	0.61%	2015	0.67%	2015	21.81%	2018	144	2018	9.0%	2015
Malta	4	2019	4.60	2017	0.19%	2016	0.38%	2016	45.37%	2018	146	2018	5.4%	2015
Mexico	6	2019	5.60	2015	0.33%	2016	0.16%	2016	53.57%	2018	42	2018	9.2%	2015
Netherlands	5	2019	11.28	2017	0.63%	2016	1.37%	2016	54.44%	2018	191	2018	5.9%	2015
New Zealand	6	2019	16.87	2017	0.47%	2015	0.77%	2015	29.39%	2018	60	2018	30.8%	2015
Norway	8	2019	9.99	2017	0.93%	2016	1.10%	2016	36.75%	2018	155	2018	57.8%	2015
Poland	4	2019	10.90	2017	0.37%	2016	0.59%	2016	48.36%	2018	101	2018	11.9%	2015
Portugal	6	2019	6.85	2017	0.55%	2016	0.73%	2016	121.44%	2018	281	2018	27.2%	2015
Romania	5	2019	5.81	2017	0.19%	2016	0.29%	2016	36.60%	2018	62	2018	23.7%	2015
Slovakia	5	2019	7.96	2017	0.32%	2016	0.47%	2016	48.85%	2018	110	2018	13.4%	2015
Slovenia	8	2019	8.45	2017	0.41%	2016	1.60%	2016	68.49%	2018	168	2018	20.9%	2015
Spain	5	2019	7.30	2017	0.47%	2016	0.72%	2016		2018	259	2018	16.3%	2015
Sweden	9	2019	5.24	2017	0.93%	2013	2.37%	2013	39.01%	2018	118	2018	53.3%	2015
Switzerland	9	2019	5.58	2017	0.82%	2015	2.55%	2015	40.51%	2018	175	2018	25.3%	2015
Turkey	3	2019	6.49	2017	0.32%	2017	0.64%	2017	29.05%	2018	35	2018	13.4%	2015
United Kingdom	7	2019	7.18	2017	0.44%	2016	1.24%	2016		2018	222	2018	8.7%	2015
United States	4	2019	19.86	2017	0.63%	2017	2.15%	2017	105.77%	2018	352	2018	8.7%	2015

E1(	0	E1	1	E1:	2	F1		F2	2	F3		F4		F5		Fć	5
VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE
24.2	2018	42.74	2017	5.63	2016	7		3.0	2017	73.0	2016	0.90	2017	18.9%	2015	3.57	2016
29.1	2018	31.39	2017	-3.12	2016	7	2019	2.9	2017	72.4	2016	0.75	2018	25.7%	2017	5.13	2016
29.3	2018	23.33	2017	-5.47	2016	7	2019	3.1	2017	71.6	2016	0.67	2018	15.9%	2016	3.07	2016
32.7	2018	12.59	2017	-0.18	2016	4	2019	6.3	2017	66.4	2016	0.66	2018	48.0%	2016	4.14	2016
26.2	2018	34.25	2017	7.38	2016	8	2019	4.5	2017	73.2	2016	0.86	2017	14.8%	2017	2.60	2017
16.7	2018	16.42	2017	-0.76	2016	7	2019	6.3	2017	69.7	2016	0.72	2017	32.6%	2017	1.03	2009
30.9	2018	12.66	2017	-0.75	2016	4	2019	3.9	2017	69.0	2016	0.56	2018	15.4%	2016	3.23	2016
19.7	2018	19.91	2017	-3.47	2016	6	2019	2.1	2017	73.3	2016	0.75	2017	44.9%	2016	2.74	2016
30.0	2018	16.95	2017	-2.99	2016	7	2019	2.6	2017	69.3	2016	0.50	2018	15.0%	2016	3.69	2013
31.1	2018	24.44	2017	-2.63	2016	8	2019	3.7	2017	71.8	2016	0.79	2018	13.7%	2016	3.68	2015
31.0	2018	29.32	2017	2.46	2016	8	2019	2.1	2017	68.2	2016	0.42	2018	22.3%	2017	4.97	2016
34.9	2018	36.14	2017	6.37	2016	7	2019	1.9	2017	71.7	2016	0.68	2018	20.4%	2016	3.33	2015
32.4	2018	21.98	2017	-2.07	2016	7	2019	3.5	2017	73.4	2016	0.87	2017	9.8%	2016	3.35	2016
33.2	2018	22.14	2017	-3.22	2016	8	2019	3.1	2017	71.6	2016	0.63	2017	12.0%	2017	4.19	2016
31.5	2018	26.41	2017	-2.71	2016	4	2019	4.3	2017	72.0	2016	0.91	2018	34.3%	2016	6.59	2016
28.8	2018	14.73	2017	-1.15	2016	3	2019	3.8	2017	66.8	2016	0.70	2018	29.7%	2016	3.21	2016
22.7	2018	31.76	2017	-4.26	2012	6	2019	1.6	2017	73.0	2016	0.83	2016	16.3%	2017	3.87	2017
22.2	2018	19.96	2017	-1.75	2016	5	2019	3.0	2017	72.1	2016	0.79	2017	13.0%	2016	3.25	2017
19.9	2018	21.62	2017	-4.62	2016	8	2019	2.9	2017	72.9	2016	0.90	2017	23.0%	2017	3.08	2016
36.9	2018	19.49	2017	-3.49	2016	7	2019	2.9	2017	73.2	2016	0.91	2017	23.6%	2017	4.01	2017
46.0	2018	24.62	2017	-3.91	2016	7	2019	1.9	2017	74.8	2016	0.71	2016	12.9%	2015	2.43	2016
20.0	2018	26.34	2017	-5.33	2016	8	2019	2.8	2017	73.0	2016	0.62	2017	34.3%	2017	2.34	2017
31.0	2018	23.11	2017	2.14	2016	4	2019	3.6	2017	66.2	2016	0.35	2018	44.6%	2016	3.21	2016
29.1	2018	36.31	2017	-0.38	2016	7	2019	3.4	2017	66.1	2016	0.40	2017	32.3%	2017	4.77	2016
21.0	2018	101.67	2017	-11.67	2016	8	2019	2.1	2017	72.6	2016	0.86	2017	11.2%	2017	2.99	2017
30.2	2018	25.55	2017	-5.19	2016	7	2019	5.6	2017	72.2	2016	0.67	2018	37.5%	2015	3.96	2017
10.6	2018	8.71	2017	-1.43	2016	5	2019	11.5	2017	67.7	2016	0.89	2017	40.4%	2016	2.36	2016
29.7	2018	26.76	2017	-4.01	2016	6	2019	3.3	2017	72.1	2016	0.74	2018	11.2%	2017	3.50	2016
24.2	2018	24.35	2017	4.59	2016	8	2019	4.4	2017	72.8	2016	0.98	2018	13.6%	2017	3.00	2016
26.1	2018	37.42	2017	1.76	2016	7	2019	2.1	2017	73.0	2016	0.81	2017	14.6%	2017	4.66	2017
25.6	2018	17.33	2017	-2.44	2016	5	2019	4.0	2017	68.5	2016	0.66	2018	22.6%	2017	2.42	2015
33.8	2018	16.65	2017	-2.84	2016	6	2019	3.1	2017	72.0	2016	0.59	2018	27.2%	2017	4.80	2016
27.5		16.84	2017	-0.22	2016	4	2019	6.6	2017	66.6	2016	0.82	2018	20.8%	2016	2.84	2016
22.7	2018	45.15	2017	-1.21	2016	4	2019	4.6	2017	68.3	2016	0.78	2017	17.8%	2016	3.47	2016
	2018	22.42	2017	-2.89		5	2019		2017	70.5	2016	0.64	2018	12.0%	2017	3.01	2016
	2018	21.89	2017	-2.67	2016	8			2017	73.8	2016	0.84	2018	23.8%	2016	3.82	2016
	2018	24.20	2017		2016	6			2017	72.4	2016	0.75	2018	15.1%	2017	4.27	2015
	2018		2017	-3.63	2016	8	2019	3.7	2017	73.5	2016	0.76	2017	29.6%	2016	4.25	2016
	2018		2017		2016		2019		2017	66.0		0.83	2017	16.5%	2016	1.82	2014
	2018		2017		2016		2019		2017	71.9		0.75	2017	15.1%	2016	2.79	2017
24.2	2018	30.49	2017	-4.46	2016	5	2019	5.7	2017	68.5	2016	0.77	2017	11.0%	2017	2.58	2016

## FIGURE 52 Social Justice Index (weighted)

Unit: Score

					cial Jus					
ank	Country	2009	2011	2014	2015	2016	2017	2018	2019	change to 2009
1	Iceland	7.80	7.63	7.79	7.81	7.75	8.00	8.03	7.90	0.10
2	Norway	7.52	7.54	7.76	7.71	7.65	7.63	7.62	7.68	0.16
3	Denmark	7.47	7.14	7.35	7.46	7.38	7.61	7.61	7.67	0.20
4	Finland	7.25	7.33	7.33	7.38	7.35	7.35	7.31	7.24	-0.01
5	Sweden	7.33	7.16	7.02	7.06	7.01	6.96	7.03	6.98	-0.35
6	Netherlands	7.21	7.20	7.13	7.06	7.03	6.94	6.95	6.97	-0.25
7	Slovenia			6.28	6.30	6.44	6.59	6.82	6.88	
8	Czechia	6.75	6.61	6.77	6.67	6.70	6.58	6.78	6.80	0.05
9	New Zealand	6.64	6.52	6.69	6.54	6.54	6.67	6.74	6.75	0.11
10	Germany	6.18	6.22	6.54	6.44	6.51	6.55	6.65	6.64	0.46
11	United Kingdom	5.93	6.17	6.48	6.45	6.53	6.55	6.66	6.64	0.71
12	Canada	6.42	6.29	6.33	6.42	6.23	6.49	6.55	6.57	0.15
13	Ireland	6.44	6.14	6.06	6.03	6.22	6.27	6.49	6.56	0.12
14	Switzerland	6.11	6.25	6.37	6.55	6.42	6.36	6.35	6.56	0.45
15	France	6.65	6.34	6.34	6.34	6.35	6.32	6.48	6.53	-0.13
16	Poland	5.79	5.82	5.98	6.06	6.13	6.09	6.33	6.42	0.63
17	Austria	6.23	6.05	6.27	6.34	6.32	6.41	6.37	6.33	0.10
18	Belgium	6.30	6.18	6.25	6.15	6.30	6.24	6.36	6.31	0.01
	Luxembourg	6.52	6.55	6.54	6.55	6.64	6.28	6.34	6.23	-0.29
	Cyprus			5.79	5.77	5.85	5.96	6.14	6.10	
21	Hungary	6.12	5.89	5.67	5.65	5.83	6.01	6.21	6.09	-0.03
	EU/OECD Average	6.14	6.01	5.93	5.93	5.94	5.99	6.05	6.09	
22	Slovakia	5.91	5.64	5.54	5.59	5.64	5.87	5.99	6.07	0.16
23	Malta			5.66	5.80	5.77	6.01	5.95	6.07	
24	Portugal	5.52	5.49	5.28	5.11	5.28	5.52	5.79	6.03	0.51
	Estonia			6.57	6.30	6.30	6.10	6.10	5.98	
	Australia	5.66	5.74	5.73	5.72	5.74	5.82	5.85	5.91	0.25
	Japan	5.48	5.39	5.45	5.50	5.58	5.53	5.55	5.62	0.14
	Spain	5.46	5.20	5.28	5.15	5.19	5.29	5.26	5.53	0.08
	Italy	5.68	5.62	5.44	5.42	5.43	5.40	5.52	5.48	0.20
	Israel	5.50	5.02	5.05	5.10	5.11	5.41	5.41	5.48	
	Lithuania			5.75	5.98	5.57	5.36	5.30	5.36	
	Croatia			5.10	5.16	5.10	5.15	5.20	5.29	
	Latvia			5.60	5.53	5.20	5.23	5.14	5.27	
	Korea	5.05	5.02	5.80	5.53	5.20	5.23	5.09	5.21	0.13
	Greece	5.05	5.02		4.74			4.95		-0.02
				4.57		4.79	4.78		5.10	
	United States	5.06	4.98	5.11	5.16	5.27	5.12	5.01	5.05	-0.01
	Chile		4.62	4.72	4.78	4.86	5.01	4.91	4.92	
	Bulgaria			4.40	4.47	4.51	4.78	4.73	4.91	
	Romania			4.86	4.54	4.41	4.55	4.74	4.86	
	Turkey	4.28	4.30	4.66	4.68	4.75	4.75	4.81	4.86	0.58
41	Mexico	4.27	4.26	4.39	4.57	4.63	4.69	4.72	4.76	0.49

Source: Social Justice Index.

## FIGURE 53 Social Justice Index (unweighted)

Unit: Score

lank	Country	2009	2011	2014	cial Jus 2015		2017	2018	2019	change to 2009
	Norway	7.44	7.43	7.62	7.59	7.53	7.53	7.54	7.62	0.18
	Iceland	7.54	7.41	7.53	7.50	7.44	7.66	7.71	7.60	0.06
	Denmark	7.30	7.08	7.23	7.30	7.25	7.41	7.44	7.49	0.20
	Sweden	7.35	7.24	7.12	7.10	7.08	7.02	7.10	7.03	-0.31
	Finland	7.15	7.16	7.14	7.17	7.10	7.11	7.05	6.98	- 0.17
	New Zealand	6.73	6.62	6.75	6.67	6.67	6.78	6.85	6.86	0.12
	Netherlands	7.05	6.98	6.91	6.84	6.78	6.74	6.74	6.75	0.31
	Slovenia			6.20	6.22	6.34	6.46	6.64	6.64	
	Switzerland	6.19	6.32	6.45	6.58	6.51	6.46	6.48	6.61	0.43
	Canada	6.48	6.38	6.38	6.45	6.34	6.53	6.58	6.61	0.13
	Germany	6.04	6.08	6.40	6.35	6.41	6.44	6.52	6.53	0.49
	United Kingdom	6.01	6.15	6.39	6.37	6.44	6.43	6.52	6.50	0.49
	Czechia	6.42	6.34	6.43	6.41	6.43	6.32	6.45	6.47	0.05
	France	6.42	6.16	6.18	6.16	6.16	6.15	6.31	6.37	-0.05
	Ireland	6.28	5.99	5.96	5.91	6.07	6.15	6.30	6.36	0.09
	Luxembourg	6.40	6.52	6.46	6.47	6.55	6.34	6.41	6.36	-0.04
	Austria	6.25	6.03	6.25	6.31	6.25	6.33	6.32	6.29	0.04
	Estonia	0.25	0.05	6.46	6.30	6.31	6.24	6.29	6.22	0.04
		6.01	6.00							0.17
	Australia	6.01	6.09	6.06	6.02	6.05	6.09	6.11	6.17	-0.01
20	Belgium	6.18	6.08	6.08	6.01	6.10	6.08	6.19	6.17	-0.01
21	EU/OECD Average	6.10	6.00	5.91	5.92	5.93	5.98	6.02	6.06	0.40
	Poland	5.56	5.64	5.87	5.91	5.95	5.88	6.00	6.06	0.49
	Portugal	5.57	5.52	5.32	5.22	5.39	5.58	5.79	5.98	0.41
	Malta			5.46	5.57	5.56	5.76	5.77	5.86	
	Israel			5.57	5.60	5.60	5.81	5.79	5.86	
	Cyprus			5.51	5.50	5.60	5.72	5.82	5.85	
	Slovakia	5.61	5.39	5.34	5.41	5.44	5.60	5.73	5.79	0.18
	Spain	5.69	5.45	5.43	5.38	5.45	5.52	5.53	5.77	0.08
	Hungary	5.76	5.57	5.38	5.39	5.51	5.63	5.74	5.68	-0.07
	Japan	5.56	5.48	5.52	5.58	5.62	5.60	5.59	5.66	0.10
30	Lithuania			5.76	5.88	5.66	5.52	5.51	5.59	
31	Italy	5.68	5.61	5.46	5.40	5.47	5.47	5.57	5.53	0.16
32	Korea	5.28	5.26	5.49	5.50	5.53	5.50	5.29	5.36	0.08
33	Croatia			5.12	5.22	5.13	5.19	5.26	5.34	
34	Latvia			5.46	5.42	5.24	5.27	5.23	5.30	
	United States	5.24	5.20	5.31	5.37	5.48	5.36	5.19	5.22	-0.03
36	Chile		4.81	4.87	4.94	4.99	5.12	5.09	5.11	
37	Greece	5.02	4.99	4.62	4.76	4.79	4.80	4.97	5.05	0.04
38	Romania			4.94	4.74	4.66	4.78	4.94	5.04	
39	Mexico	4.49	4.49	4.63	4.70	4.79	4.88	4.91	4.96	0.47
40	Bulgaria			4.53	4.60	4.62	4.86	4.82	4.96	
41	Turkey	4.30	4.39	4.73	4.78	4.87	4.86	4.90	4.96	0.66

Source: Social Justice Index.

## **Publishing Information**

© Bertelsmann Stiftung December 2019

Bertelsmann Stiftung Carl-Bertelsmann-Straße 256 33311 Gütersloh Germany www.bertelsmann-stiftung.de

# Responsible

Dr. Thorsten Hellmann

Authors Dr. Thorsten Hellmann Pia Schmidt Sascha Matthias Heller

## Statistical research and calculations

Dr. Margit Kraus, Calculus Consult

#### Copyediting

Dr. Barbara Serfozo (Berlin)

#### **Graphic Design**

Markus Diekmann, Bielefeld

## **Picture credits**

© iStockphoto / George Clerk © kharlamova\_lv - stock.adobe.com © Matthias Enter - stock.adobe.com

## Address | Contact

Bertelsmann Stiftung Carl-Bertelsmann-Straße 256 33311 Gütersloh Phone +49 5241 81-0 Germany

Dr. Thorsten Hellmann Program Shaping Sustainable Economies Phone +49 5241 81-81236 thorsten.hellmann@bertelsmann-stiftung.de

# www.bertelsmann-stiftung.de