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Child Well-being in Economically Rich Countries

Changes in the first decade of the 21st century

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CHILD WELL-BEING IN ECONOMICALLY RICH COUNTRIES: CHANGES IN THE FIRST DECADE OF THE 21ST CENTURY

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Abstract. The aim of this paper is to assess the inter-temporal change in child well-being over the last decade. For this purpose, it compares the child well-being index calculated in the Innocenti Report Cards 7 and 11. Although the two Report Cards use the same methodological framework, they differ in the set of indicators used. It is therefore necessary to compute a modified child well-being index based on the common indicators used in the two Report Cards for the 21 countries under study. The analysis shows that the rankings are relatively stable: indeed, the Netherlands and the Scandinavian countries are still in the best performing group while the United States is still in the bottom of the ranking. Data analysis also highlights a common pattern for East European countries as material conditions improved and the behaviour of young people became more similar to their peers living in Western economies even though children's living conditions have not improved overall. On the whole, Norway, Portugal and the United Kingdom recorded the most positive changes, while Poland, Spain and Sweden recorded the most negative changes.

Keywords: Well-being, comparison of rich countries, longitudinal analysis

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1. INTRODUCTION

While the number of studies on multidimensional well-being in general, and multidimensional child well-being in particular, has been growing over the last decade, few studies analyze changes over time. This paper intends to fill this gap by assessing the inter-temporal changes in child well-being in the last decade comparing the results that emerged from the Innocenti Report Card 11 with those from the Innocenti Report Card 7.

The paper is part of the background research for the Innocenti Report Card 11. The analysis is carried out in two stages. First, we compare the indicators that are common to both Report Cards. Secondly, we compute a modified child well-being index based on the common indicators for 21 countries. This is possible, despite some differences, because, the two Report Cards use the same methodological framework. As a result, the analysis provides us with a comparable measure of child well-being for the reporting periods of the Report Cards 7 and 11.

Section 2 discusses the methodology, highlighting similarities and differences across the two Report Cards and describing how the modified Child Well-being Index has been computed. Section 3 shows how each individual indicator of child well-being has changed over time. Section 4 discusses the main results, comparing the modified child well-being index across the two Report Cards. Finally, section 5 concludes and tries to extract some policy implications.

2. METHODOLOGICAL FRAMEWORK

2.1 Similarities and differences between the two Report Cards

As far as possible the indicators used in Report Card 11 are similar to the indicators used in Report Card 7 (UNICEF 2007; Martorano et al 2013). Some changes were, however, unavoidable either as the result of changes in the underlying data or as a response to conceptual comments on the analysis behind the earlier Report Card.

The dimensions considered for analyzing child well-being have been slightly modified across the two Report Cards. Some changes are more formal than real: they are merely related to changes in the name of some dimensions. A more substantial change is the introduction of a dimension on 'housing and environment'. Indeed, one of the main limitations of the previous Report Card was the lack of such a dimension; its inclusion is paramount and is supported by extensive literature on the impact that the environment where the child lives has on her or his development. In Report Card 11 'subjective well-being' and the 'family and peer relationships' dimensions are no longer included in the computation of the child well-being index, but are instead analyzed separately (see Bradshaw et al, 2013). Thus, the comparison is based on four dimensions.

Important differences are also introduced in the other components (Table 1). Excluding the 'subjective well-being' and 'housing and environment' dimensions, the number of components is lower in Report Card 11 than in Report Card 7 (10 instead of 12). Material well-being is composed of the monetary and material deprivations components only, excluding the information related to the employment status of the household that was part of the dimension in Report Card 7. The components of the health dimension are similar, the only difference being that the child mortality component now includes information on all child deaths and not only on deaths related to accidents and injuries as in Report Card 7. The education dimension is slightly modified with the

exclusion of the component 'transition to employment' and the inclusion of information on 'preschool enrolment'. Moreover, in Report Card 11 the "educational participation" and "educational aspirations" components are merged in the "educational participation" component. In this way, it is possible to provide a comprehensive picture of the education dimension and fill one of the existing gaps in Report Card 7.

Finally, the 'behaviours and risks' dimension is as for Report Card 7, with the exclusion of two indicators: percentage having sexual intercourse by age 15 and the percentage using a condom during their last sexual intercourse.

Table 1 reports the comparable indicators across Report Cards 7 and 11.

Table 1 *Comparable indicators across Report Cards 7 and 11 by component and dimension*

DIMENSION	COMPONENT	INDICATOR
MATERIAL WELL-BEING	Monetary deprivation	Child poverty rate
	Material deprivation	Percentage of children reporting low family affluence
HEALTH	Health at birth	Infant mortality rate Low birth weight
	Preventive health services	Measles immunization rate
		DPT3 immunization rate
		Polio immunization rate
EDUCATION	Achievements	Average achievement in reading literacy Average achievement in mathematical literacy Average achievement in science literacy
	Participation	Percentage of young people aged 15-19 remaining in education Percentage of young people aged 15-19 not in education, training or employment
BEHAVIOURS AND RISKS	Risk behaviour	Teenage fertility rate Percentage of students aged 11, 13, and 15 who reported smoking at least once a week Percentage of young people aged 11, 13 and 15 who reported having been drunk on more than two occasions Percentage of young people aged 11, 13 and 15 who report having used cannabis in the last 12 months
	Experience of violence	Percentage of young people aged 11, 13 and 15 who reported having been involved in fighting at least once in the previous twelve months Percentage of young people aged 11, 13 and 15 who reported having being bullied at least once in the past couple of months
	Health behaviour	Percentage of young people aged 11, 13 and 15 who reported eating breakfast every school day Percentage of young people aged 11, 13 and 15 who reported eating fruit daily Percentage young people aged 11, 13 and 15 overweight (based on height and weight self-reported data)

Source: Authors' elaboration.

2.2 A Modified Child Well-being Index for Report Cards 7 and 11

The central idea of this paper is to build a modified child well-being index in order to observe the performance of countries over time. This is possible given that:

1) comparable indicators represent the majority of those employed to build the child well-being index in both Report Cards (7 and 11);

2) at least one indicator is available for each of the dimensions selected to compute the modified child well-being index. The selected dimensions are: material well-being, health, education and behaviours and risks. Inter-temporal changes in *subjective* well-being are analyzed in a separate paper (Bradshaw et al 2013).[1]

As in the two Report Cards, the modified child well-being index is computed as the average rank of the four above-mentioned dimensions. The dimension value is given by a simple average of the z-scores for the different components, while the component is given by the simple average of the z scores for the indicators selected. For each indicator, the z score shows the distance of each observation from the mean value in terms of number of standard deviations. This statistic gives us the possibility to rank countries while also having an indication of the degree of the dispersion. However, it is necessary to highlight that z scores are sensitive to data availability and could be conditioned by the presence of outliers.

To partially cope with these problems, we excluded countries with insufficient data by establishing a threshold of 75 per cent availability of data. As a result, the modified child well-being index is computed for the following 21 countries included in both analyses and with sufficient data: Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States.[2]

1 For further details on the rationale of this decision see Martorano et al. 2013.
2 However, Report Card 11 covers more countries than Report Card 7, namely 35 of which 28 are OECD members. Moreover a separate paper on Japan will be published at a later date.

3. CHILD WELL-BEING ACROSS REPORT CARD 7 AND REPORT CARD 11

In this section, the main findings from the analysis are presented. Each subsection reports the comparison of the indicators common to the two Report Cards. At the end, we will present the results related to the modified child well-being index.

3.1 Children's material well-being

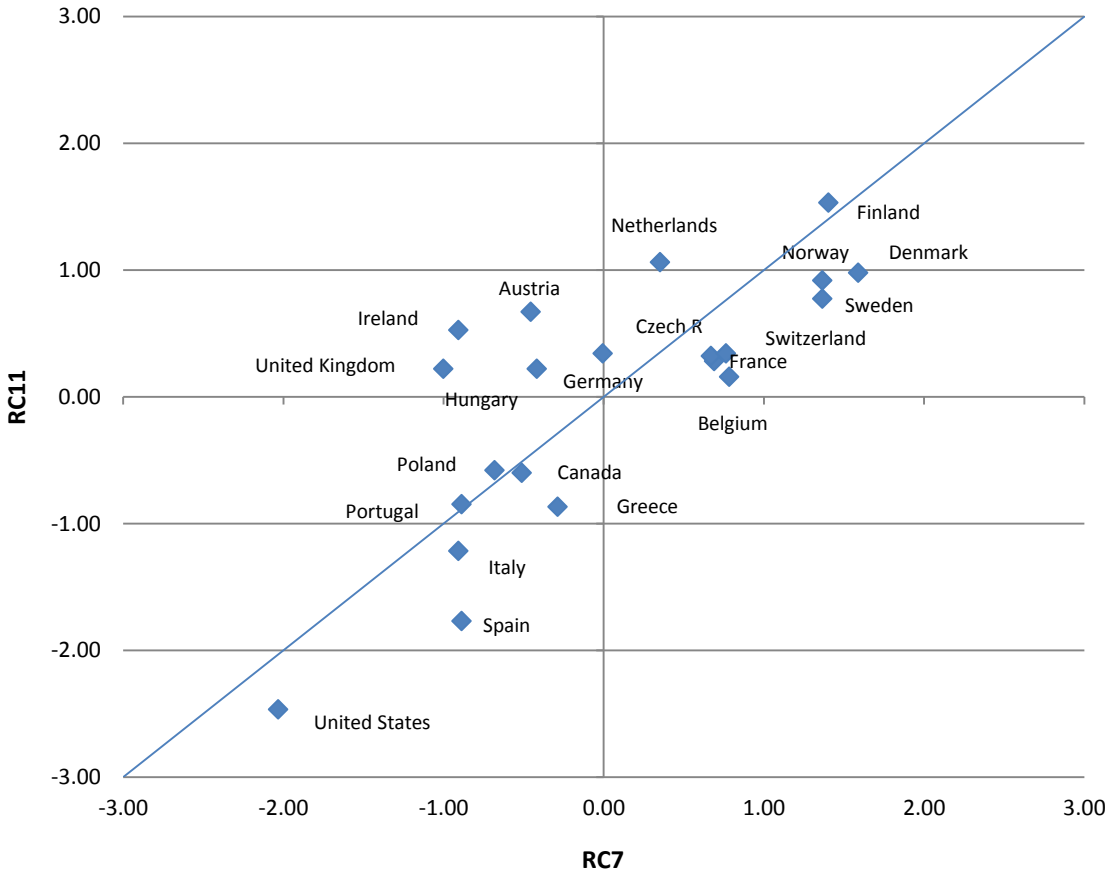
Both Report Cards consider material well-being in a multidimensional perspective. For this reason, they include two components – material and monetary deprivation – providing an overall picture of children's living conditions in the society.

i) Monetary deprivation. In Report Cards 7 and 11, a child[3] is poor when household disposable income is lower than 50 per cent of the median income. Nonetheless, it is not possible to compare these data because different equivalence scales are used in the two Report Cards (respectively the square root of household size and the modified-OECD equivalent scale). Consequently, it is possible to compare only the relative position recorded by the different countries according to the different rankings reported in the two Report Cards.

Figure 1 shows the z-scores for poverty rates. The results confirm the Nordic countries as the best performers. In contrast, the United States and the southern European countries remain in the worst performing group. There are interesting changes over the same period. Austria, Ireland, the Netherlands and the United Kingdom substantially improved their rank positions, while Greece and Spain moved in the opposite direction. Unfortunately, Figure 1 does not show poverty changes within countries. However, OECD data shows that child poverty increased in most countries between the mid-1990s and 2008.

[3] Defined as under 18 years-old.

Figure 1 *Changes in relative ranking by monetary deprivation conditions in the early and late 2000s*



Source: Authors' elaboration.
Notes: RC7 data refer to 2000, with the exception of Austria and Greece (1999), Germany and Switzerland (2001) and Spain 1995. RC11 data refer to 2010 with the exception of the United States (2007).

ii) Material deprivation. To measure changes in children's material deprivation, the only indicator available is the family affluence scale (FAS score) which refers to the percentage of children (aged 11, 13 and 15) reporting a low level of wealth based upon family items such as: car, bedroom occupancy, holidays and computers at home (Currie et al., 2012).

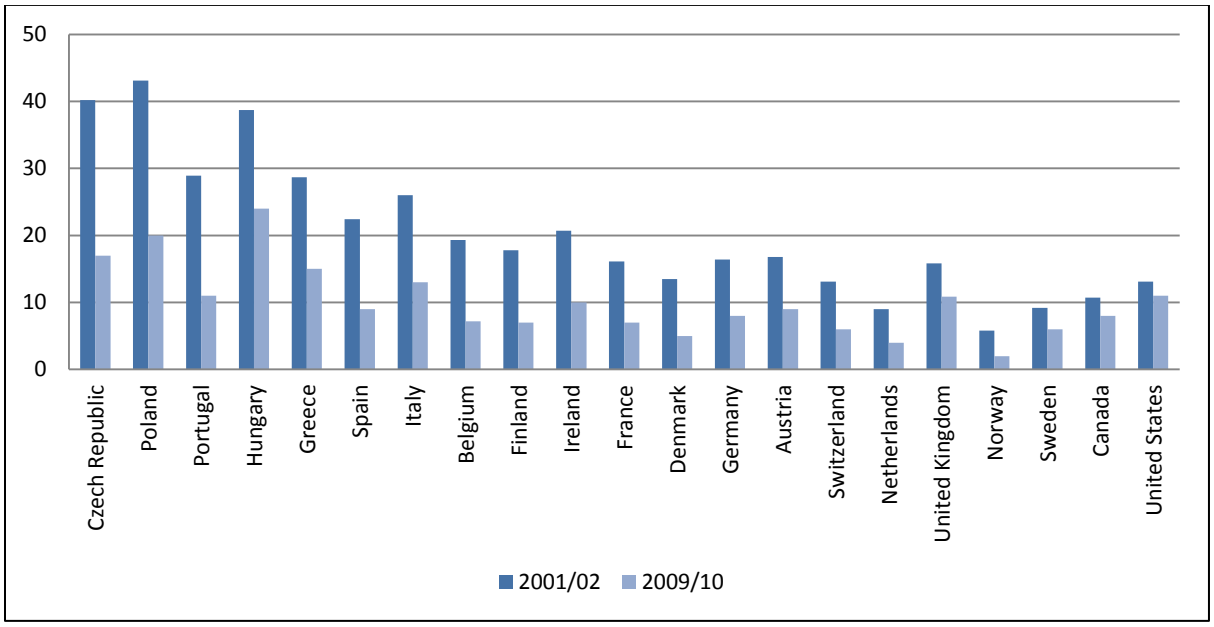
Data for Report Card 7 are from the HBSC 2001/2002 and those for Report Card 11 are from Currie et al (2012) which was based on data extracted from HBSC 2009/2010. Starting with information disaggregated by age and sex in all countries, the national value was computed using a simple average in Report Card 7 and a weighted average in Report Card 11. For comparability reasons, we recalculated all the data extracted by the HBSC 2001/2002 using the population shares to obtain a weighted average as in Report Card 11 (for details see Martorano et al 2013).[4]

According to Figure 2, families' material conditions improved in all countries in the late 2000s. The most recent data show that the percentage of families considered deprived according to the FAS score is equal to or less than 20 per cent in almost all countries, with the exception of Hungary.

[4] Population data are from the World Bank database Health Nutrition Population Statistics (HNP Stats). For Belgium and the UK, we use data for the subnational population extracted from the respective national statistical offices.

Following a convergence process, central, eastern and southern European countries gained more than others even though they started from a worse initial condition. On the one hand, in the Czech Republic and in Poland the percentage of children in deprived households decreased by more than 20 per cent. On the other hand, the United States and Canada recorded the smallest gains.

Figure 2 *Changes in the percentage of children reporting low family affluence between 2001/2002 and 2009/2010*



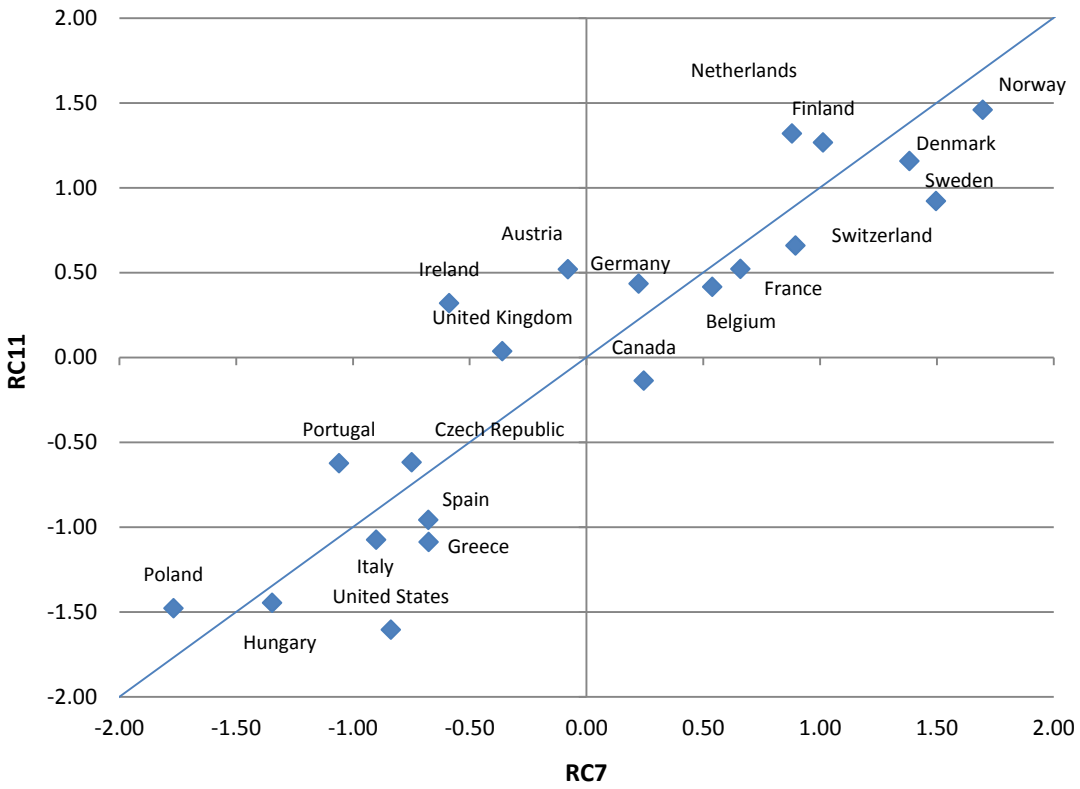
Source: Authors' elaboration on data extracted from HBSC 2001/2002 and Currie et al (2012).
Notes: Data for Italy were not reported in RC7.

iii) Findings for changes in children's material well-being during the last decade. Figure 3 shows the changes in the material well-being dimension (i.e. average of z scores of the two components) for those countries with sufficient data available.

Over the last decade, less than half of the countries recorded an improvement in children's material well-being: Finland, Germany and the Netherlands stayed above the average; Austria, Ireland and the United Kingdom improved their position to above the average; the Czech Republic, Poland and Portugal performed better than in the past but still below the average.

On the other hand, children's material well-being continues to deteriorate in Greece, Hungary, Italy, Spain and the United States. The situation is also worsening in Canada even though it performed better than other countries in the early 2000s.

Figure 3 *Changes in the relative ranking of the children's material well-being dimension during the last decade*



Source: Authors' elaboration.

3.2 Health

Two health components are included in both Report Cards: health at birth and preventive health services.

i) Health at birth component. The indicators used in the health at birth component are the prevalence of low birth weight and the infant mortality rate. These indicators can be considered representative of the quality of health for infants in a society (OECD, 2009a) and the comparison therefore gives us the possibility to see how this has evolved in the last decade.

As can be seen in Table 2, infant mortality rates decreased in all countries. Poland shows the largest changes (1.8), followed by Ireland (1.7) and Hungary (1.6). Indeed, these three countries started from a relatively high rate. However, they performed better than other countries that were not able to reduce the infant mortality rate even though they started from a similar position.

With respect to low birth weight, the situation is more heterogeneous since countries followed different trends. Moreover, Table 2 shows that the prevalence of low birth weight remained stable at around 6.5. However, it increased in the vast majority of countries and decreased in only four (Table 2).

Table 2 *Changes in the infant mortality rate and prevalence of low birth weight between the early 2000s and the late 2000s*

	Infant mortality rate			Low birth weight		
	RC7	RC11	difference	RC7	RC11	difference
Austria	4.5	3.5	-1.0	7.1	7.1	0.0
Belgium	4.3	3.6	-0.7	6.5	7.6	1.1
Canada	5.4	5.0	-0.4	5.8	6.0	0.2
Czech Republic	3.9	3.4	-0.5	6.6	7.6	1.0
Denmark	4.4	3.3	-1.1	5.5	6.1	0.6
Finland	3.1	2.4	-0.7	4.1	4.3	0.2
France	3.9	3.5	-0.4	6.6	6.6	0.0
Germany	4.2	3.4	-0.8	6.8	6.9	0.1
Greece	4.8	3.9	-0.9	8.3	8.4	0.1
Hungary	7.3	5.7	-1.6	8.7	8.4	-0.3
Ireland	5.1	3.4	-1.7	4.9	4.8	-0.1
Italy	4.3	3.3	-1.0	6.5	7.0	0.5
Netherlands	4.8	3.5	-1.3	5.4	5.5	0.1
Norway	3.4	2.7	-0.7	4.9	5.2	0.3
Poland	7.0	5.2	-1.8	5.9	6.1	0.2
Portugal	4.1	2.9	-1.2	7.4	8.2	0.8
Spain	4.1	3.7	-0.4	6.8	7.8	1.0
Sweden	3.1	2.3	-0.8	4.5	4.1	-0.4
Switzerland	4.3	4.0	-0.3	6.5	6.6	0.1
United Kingdom	5.3	4.5	-0.8	7.6	7.4	-0.2
United States	7.0	6.5	-0.5	7.9	8.2	0.3

Source: Authors' calculations based on World Development Indicators and the OECD STATS for Report Card 11 and OECD STATS for Report Card 7.
Notes: For *Infant mortality rate,* in RC7 data refer to 2003, except for Canada and the United States (2002). In RC11 data refer to 2010. For *Low birth weight:* in RC7 data refer to 2003, except for: Canada, Greece, Switzerland (2002); Spain, Ireland, Italy, the Netherlands (2001); and Belgium (1995). In RC11 data refer to 2009, except for Belgium and the Netherlands (2008), and France (2007).

ii) Preventive health services. The preventive health services component is based on three indicators: the percentage of children aged 12-23 months immunized against DPT3, measles and polio.

As can be seen in Table 3, the immunization rates increased in almost all countries during the last decade. On average, the most important increase was recorded by the percentage of children immunized against measles which increased by three points, while those of DPT3 and polio rose only by one point. The countries that recorded on average the largest variations are Greece and Ireland where the immunization rates increased respectively by 11 and 12 percentage points in the case of measles, 11 and 9 percentage points in the case of DPT3 and 12 and 10 percentage points in the case of polio (Table 3). Moreover, in some countries the rates were already close to 100 per cent in 2002/2003.

Nonetheless, there are some noticeable exceptions such as Canada and Denmark which registered a worsening of the situation in 2010 (largest negative variations).

Table 3 *Changes in immunization rates between the early 2000s and the late 2000s*

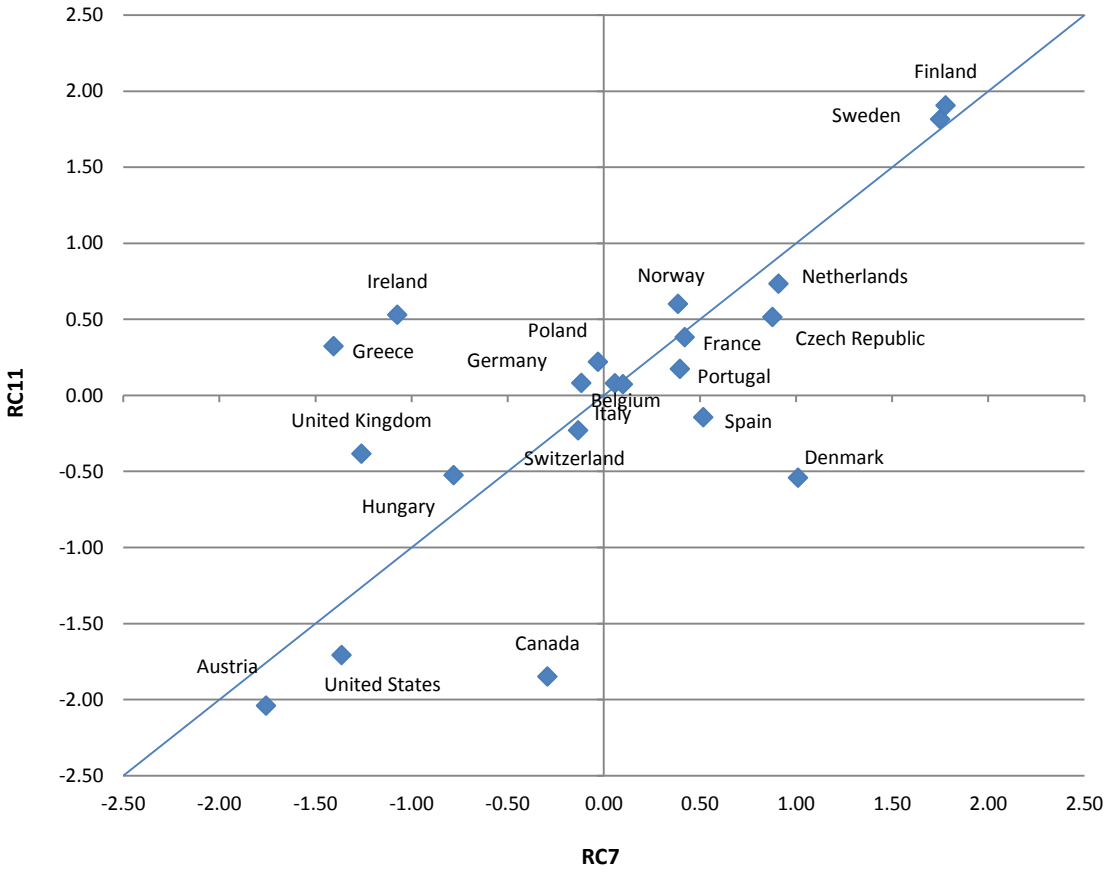
	Measles			DPT3			Polio		
	RC7	**RC11**	**diff**	**RC7**	**RC11**	**diff**	**RC7**	**RC11**	**diff**
Austria	79.0	76.0	-3.0	83.0	83.0	0.0	82.0	83.0	1.0
Belgium	82.0	94.0	12.0	95.0	99.0	4.0	96.0	99.0	3.0
Canada	95.0	93.0	-2.0	91.0	80.0	-11.0	89.0	80.0	-9.0
Czech Rep.	99.0	98.0	-1.0	98.0	99.0	1.0	97.0	99.0	2.0
Denmark	96.0	85.0	-11.0	98.0	90.0	-8.0	98.0	90.0	-8.0
Finland	97.0	98.0	1.0	98.0	99.0	1.0	95.0	99.0	4.0
France	86.0	90.0	4.0	97.0	99.0	2.0	98.0	99.0	1.0
Germany	92.0	96.0	4.0	89.0	93.0	4.0	95.0	95.0	0.0
Greece	88.0	99.0	11.0	88.0	99.0	11.0	87.0	99.0	12.0
Hungary	99.0	99.0	0.0	99.0	99.0	0.0	99.0	99.0	0.0
Ireland	78.0	90.0	12.0	85.0	94.0	9.0	84.0	94.0	10.0
Italy	83.0	90.0	7.0	96.0	96.0	0.0	96.0	96.0	0.0
Netherlands	96.0	96.0	0.0	98.0	97.0	-1.0	98.0	97.0	-1.0
Norway	84.0	93.0	9.0	91.0	93.0	2.0	91.0	93.0	2.0
Poland	97.0	98.0	1.0	99.0	99.0	0.0	98.0	96.0	-2.0
Portugal	96.0	96.0	0.0	98.0	98.0	0.0	96.0	97.0	1.0
Spain	97.0	95.0	-2.0	96.0	97.0	1.0	96.0	97.0	1.0
Sweden	94.0	96.0	2.0	98.0	98.0	0.0	99.0	98.0	-1.0
Switzerland	82.0	90.0	8.0	95.0	96.0	1.0	94.0	95.0	1.0
United Kingdom	80.0	93.0	13.0	91.0	96.0	5.0	91.0	98.0	7.0
United States	93.0	92.0	-1.0	94.0	95.0	1.0	90.0	93.0	3.0

Source: For Report Card 11, data are extracted from UNICEF and WHO (2012); for Report Card 7, data are from World Development Indicator Database.
Notes: RC7 data refer to 2002 (DPT3 and Pol3) and 2003 (measles). Data for Belgium were not reported in RC7. They are extracted from the World Bank database *Health Nutrition Population Statistics* (HNP Stats). RC11 data refer to 2010.

iii) Findings on children's health during the last decade. On the whole, children's health conditions improved in the last decade. Excluding the prevalence of low birth weight, the majority of countries recorded an improved performance in the other indicators.

As can be seen in Figure 4, the most important changes are related to the group of countries which performed below the average in Report Card 7. Among them, Greece and Ireland improved their performances ranking above the average in Report Card 11 and showing their ability to assure better health conditions for children with respect to the past. Although Hungary and the United Kingdom recorded a better performance with respect to the past, they were not able to move above the average. However, children's health conditions worsened in Austria, Canada and the United States. Finally, Figure 4 shows that Denmark and Spain moved from the best to the worst performing group.

Figure 4 *Changes in relative ranking for the children's health dimension during the last decade*



Source: Authors' elaboration.

3.3 Education

As reported in Martorano et al (2013), education has an important impact on the present, but especially on the future, of children. Both the quality and quantity aspects of education will be taken into account.

i) Participation. In order to measure this component, two indicators are included in both Report Cards: the enrolment rates of young people (aged 15–19) in education and the percentage of young people (same age group) neither in employment nor in any education or training.

Table 4 shows that the enrolment rates increased in the vast majority of countries between 2003 and 2009. This result is related to the efforts of governments to promote staying on in secondary education. "The effect of these efforts is seen in the number of additional years in education beyond compulsory schooling in which a young individual can expect to participate" (OECD, 2011: 342). Portugal and Ireland recorded the greatest change, about 14 and 8 points respectively. Conversely, enrolment rates decreased in Belgium, Czech Republic, Denmark, France, Germany and the United Kingdom.[5] Among them, France recorded the most important reduction (about 3 points). In addition – while the majority of countries had a high rate initially – the enrolment rate in the United Kingdom decreased although already starting from a low level in the early 2000s.

Moreover, the NEET rate decreased in almost two thirds of the countries included in the analysis. This is the direct consequence of the increasing time spent by youth in education. However, the situation is different for Ireland and Spain which both experienced noticeable setbacks (respectively +5.8 and +6.1). Although the variation in Italy was lower in absolute terms (+0.7), the country started from a higher level in the early 2000s and therefore the deterioration experienced led the country to slide down to the bottom of the ranking. These results are likely to be related to the worsening conditions in the labour market due to the international crisis. As a consequence, "the expected number of years not in education decreased slightly, while time in unemployment and out of the labour force increased" (OECD, 2011: 340 - 341).

[5] The data refer to 2009, with the exceptions of Luxemburg and Greece which refer to 2008.

Table 4 *Changes in the percentage of young people aged 15-19 remaining in education and of that not in education, training or employment (NEET) between the early and late 2000s*

	Remaining in education			NEET		
	RC7	RC11	difference	RC7	RC11	difference
Austria	77.3	79.4	2.1	10.2	6.5	-3.7
Belgium	93.9	93.2	-0.7	7.1	5.7	-1.4
Canada	74.3	81.1	6.8	6.7	8.1	1.4
Czech Republic	90.1	89.2	-0.9	5.8	3.5	-2.3
Denmark	84.7	83.6	-1.1	3.0	2.9	-0.1
Finland	86.0	86.9	0.9	9.8	5.1	-4.7
France	87.2	84.0	-3.2	4.8**	6.9	2.1
Germany	89.0	88.5	-0.5	4.7	3.8	-0.9
Greece	82.6	82.7	0.1	9.3	7.9	-1.4
Hungary	83.4	89.9	6.5	6.8	5.6	-1.2
Ireland	84.4	92.1	7.7	5.2	11.0	5.8
Italy	77.8	81.8	4.0	10.5	11.2	0.7
Netherlands	84.9	89.7	4.8	4.6	3.6	-1.0
Norway	85.3	85.9	0.6	2.7	2.3	-0.4
Poland	88.2	92.7	4.5	3.3	3.6	0.3
Portugal	70.9	84.6	13.7	8.8	6.9	-1.9
Spain	78.5	81.4	2.9	7.3	13.4	6.1
Sweden	86.8	87.0	0.2	4.2	5.5	1.3
Switzerland	83.1	84.7	1.6	8.0	7.9	-0.1
United Kingdom	75.9	73.7	-2.2	9.4	9.6	0.2
United States	75.4	80.9	5.5	7.0	8.8	1.8

Source: For Report Card 11, data are from the EUROSTAT database and OECD (2011); for the Report Card 7, data are extracted from OECD Education at a Glance 2005.
Notes: *Remaining in education:* RC7 data refer to 2003. RC11 data refer to 2009 with the exception of Greece (2008). Data for Canada were not reported in RC7 and are taken from OECD. *NEET:* RC7 data refer to 2003; 2002 for Iceland, Italy, the Netherlands, and the United States. Data for France were not reported in RC7 and are taken from Eurostat. RC11 data refer to 2009; for Latvia, Lithuania, Norway and Romania data refer to 2010.

ii) Educational achievement. The indicators employed to measure educational achievement are reading, maths and science literacy as reported in the Programme for International Student Assessment (PISA).

On average, the score in mathematics decreased by two points from 503 in 2003 to 501 in 2009. Table 5 shows that 14 out of 23 countries reported negative variations of the maths score. A similar situation can be observed in reading literacy achievements where, on average the score decreased by one point from 498 to 497 between 2003 and 2009. Eleven out of 20 countries reported a lower score for reading achievement with respect to the early 2000s. Probably the most noticeable is the situation of Austria and Ireland where the score decreased by about 20 points. The situation is slightly better with respect to science achievement which on average increased from 501 to 505 over the period 2003-2009. The average score remained stable even though an improvement in the majority of countries was recorded.

On the whole, the Czech Republic, France and Sweden are among the group of countries that recorded the largest negative changes, while Germany, Italy and Portugal are among those that reported the greatest positive changes between the early and late 2000s (Table 5). It should be noted that Germany and Portugal implemented specific policies to address the educational problems highlighted by the PISA results in 2000 and 2003. "The concept underlying the policies implemented since 2005 is that improvements in the efficacy and quality of the education system depend on improving equity." (OECD 2010: 69). Indeed, the last results showed that Portugal achieved good results thanks to the improvement recorded by the most disadvantaged students; the country had the capacity to weaken the link between performance and socio-economic status. A similar result was also recorded by Germany thanks to its heavy investments targeted towards disadvantaged students "including those from immigrant backgrounds" OECD (2010: 107).

Table 5 *Changes in reading, maths and science literacy, average achievements between 2003-2009*

	Reading literacy achievement			Mathematics literacy achievement			Science literacy achievement		
	RC7	RC11	difference	RC7	RC11	difference	RC7	RC11	difference
Austria	491.0	470.3	-20.7	506.0	495.9	-10.1	491.0	494.3	3.3
Belgium	507.0	505.9	-1.1	529.0	515.3	-13.7	509.0	506.6	-2.4
Canada	528.0	524.2	-3.8	532.0	526.8	-5.2	519.0	528.7	9.7
Czech Rep	489.0	478.2	-10.8	516.0	492.8	-23.2	523.0	500.5	-22.5
Denmark	492.0	494.9	2.9	514.0	503.3	-10.7	475.0	499.3	24.3
Finland	543.0	535.9	-7.1	544.0	540.5	-3.5	548.0	554.1	6.1
France	496.0	495.6	-0.4	511.0	496.8	-14.2	511.0	498.2	-12.8
Germany	491.0	497.3	6.3	503.0	512.8	9.8	502.0	520.4	18.4
Greece	472.0	482.8	10.8	445.0	466.1	21.1	481.0	470.1	-10.9
Hungary	482.0	494.2	12.2	490.0	490.2	0.2	503.0	502.6	-0.4
Ireland	515.0	495.6	-19.4	503.0	487.1	-15.9	505.0	508.0	3.0
Italy	476.0	486.1	10.1	466.0	482.9	16.9	486.0	488.8	2.8
Netherlands	513.0	508.4	-4.6	538.0	525.8	-12.2	524.0	522.2	-1.8
Norway	500.0	503.2	3.2	495.0	498.0	3.0	484.0	499.9	15.9
Poland	497.0	500.5	3.5	490.0	494.8	4.8	498.0	508.1	10.1
Portugal	478.0	489.3	11.3	466.0	486.9	20.9	468.0	492.9	24.9
Spain	481.0	481.0	0.0	485.0	483.5	-1.5	487.0	488.3	1.3
Sweden	514.0	497.4	-16.6	509.0	494.2	-14.8	506.0	495.1	-10.9
Switzerland	499.0	500.5	1.5	527.0	534.0	7.0	513.0	516.6	3.6
United States	495.0	499.8	4.8	483.0	487.4	4.4	491.0	502.0	11.0

Source: For Report Card 11, data are from OECD PISA (2009) reported in EdStats World Bank. For Report Card 7, data are from the OECD PISA (2003) Database.
Notes: RC7 data refer to 2003. Data for the UK are not included although reported in RC7, due to technical reasons. RC11 data refer to 2009.

iii) Findings on children's education during the last decade. In contrast to health, the situation on education is more heterogonous. On the one hand, there were good results in terms of transition from compulsory to secondary school, representing a bottleneck in the expansion of children's

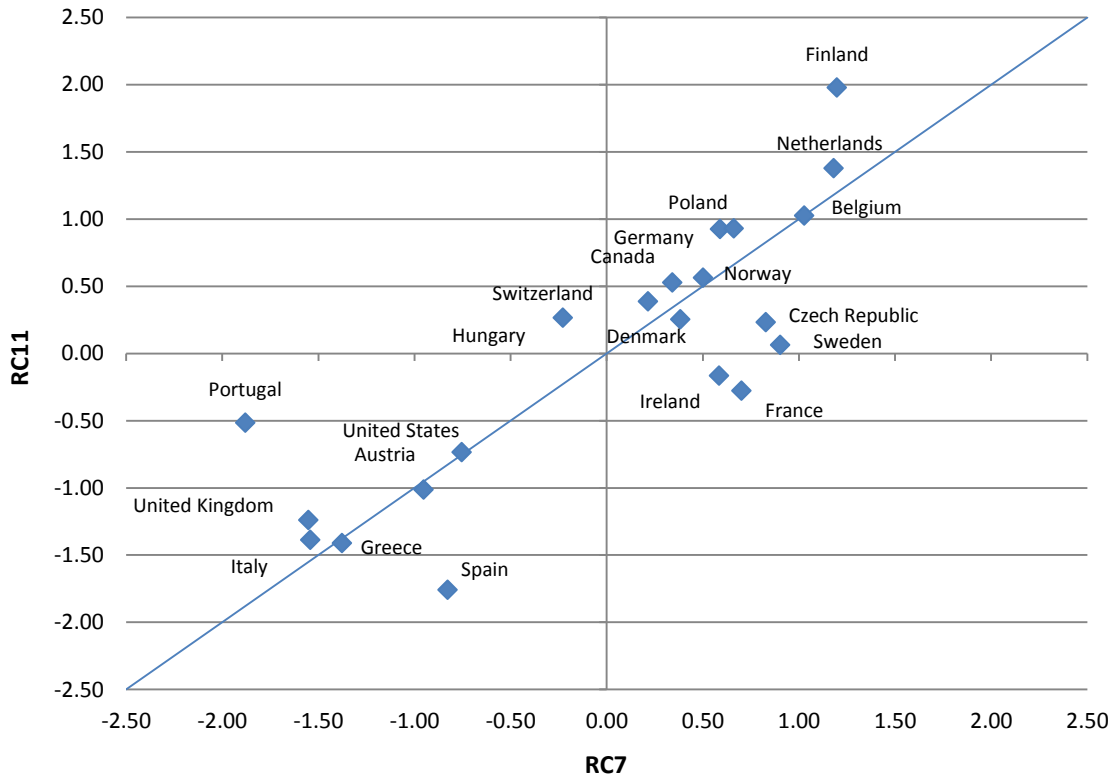
education opportunities. On the other hand, poor results represented the inability of countries to increase the quality of education and to reduce the NEET rate.

Figure 5 visually depicts Finland as an outlier, performing much better than the other countries in the last period. This result is related to the high quality of education and the ability to reduce the NEET rate from a high level.

On the whole, there are no large changes between the early and late 2000s considering that the majority of countries lie on the 45 degree line. Noticeable exceptions are France and Ireland which performed below the average in contrast to the early 2000s. The poor performance of France is due to a worsening situation across all indicators; Ireland's poor performance is related to a sharp increase in the NEET rate and a decline in reading and maths achievement compared to the past.

At the bottom of the distribution, Portugal recorded a better performance than in the past even though it remained in the worst performing group. The result is due to the improvements recorded in educational achievements and in the other educational indicators.

Figure 5 *Changes in relative rankings for children's education during the last decade*



Source: Authors' elaboration.

3.4 Behaviours and risks

Lifestyle is an important dimension of child well-being. The ways in which children behave and interact with the external environment affect their well-being in a significant manner. Three

components are analyzed in this dimension: health behaviours, risk behaviours and experience of violence.

i) Health behaviours. As reported in Martorano et al (2013), this component aims at capturing children's behaviour and the impact on their health, focusing mainly on nutrition and physical activity.

Table 6 shows the results. No clear trend is discernible as regards the percentage of young people who eat breakfast every school day: indeed, the indicator improved in some countries and worsened in others. Between 2001/2002 and 2009/2010, the Netherlands recorded the highest improvement (+6.9), becoming the best performer among the countries included in the sample. In contrast, the percentage of Polish young people who eat breakfast every school day decreased by about 9 points pushing Poland into the worst performing group.

However, on average there was a clear increase in children eating fruit every day. Between 2001/2002 and 2009/2010, the only countries that experienced a worsening of the situation are the Czech Republic (-0.9), Germany (-5.7), Greece (-3.9), Portugal (-3.5) and again Poland which recorded the largest variation (-15.8). On average, the percentage of children eating fruit every day increased by 3.5 percentage points.

Yet, although the nutrition habits of children improved during the last decade, there was an increase in the percentage of children who are overweight (+1.3 points). The only exceptions are Belgium (-2.3), France (-0.8), Spain (-2.0) and the United Kingdom (-5.2). Again, the country that reported the worst performance is Poland, where an increase of about 7.5 percentage points is recorded.

More generally, it is possible to observe a process of convergence of the Central and Eastern European countries towards the average value recorded by western economies in the late 2000s. This pattern is clear when looking at the percentage of overweight children and the percentage of children who eat fruit every day, while it is less evident in the case of children eating breakfast every school day.

Table 6 *Changes in the percentage of young people aged 11, 13 and 15 who reported eating breakfast every school day, eating fruit daily and who are overweight, between 2001/2002 and 2009/2010*

	Overweight			Eating fruit			Eating breakfast		
	RC7	RC11	diff	RC7	RC11	diff	RC7	RC11	diff
Austria	13.4	14.6	1.2	37.2	39.9	2.7	57.5	53.1	-4.4
Belgium	13.4	11.1	-2.3	30.6	36.7	6.1	68.4	69.7	1.3
Canada	18.4	19.6	1.2	37.3	44.2	6.9	58.3	61.2	2.9
Czech Republic	9.5	14.1	4.6	42.0	41.1	-0.9	51.8	53.0	1.2
Denmark	8.9	9.0	0.1	31.9	48.6	16.7	73.1	73.5	0.4
Finland	13.5	15.3	1.8	21.4	24.4	3.0	67.6	67.5	-0.1
France	11.6	10.8	-0.8	34.2	39.1	4.9	71.4	66.5	-4.9
Germany	11.4	14.1	2.7	42.2	36.5	-5.7	66.9	65.5	-1.4
Greece	16.2	20.4	4.2	37.6	33.7	-3.9	45.4	51.0	5.6
Hungary	13.7	14.8	1.1	31.2	34.8	3.6	53.4	51.1	-2.3
Ireland	11.8	12.3	0.5	32.3	36.6	4.3	71.7	71.5	-0.2
Italy	16.6	16.9	0.3	38.4	41.3	2.9	62.4	61.9	-0.5
Netherlands	6.5	8.3	1.8	28.1	32.5	4.4	78.2	85.1	6.9
Norway	11.2	12.6	1.4	29.0	41.9	12.9	69.6	69.4	-0.2
Poland	7.8	15.2	7.4	45.9	30.1	-15.8	68.9	59.9	-9.0
Portugal	15.9	17.3	1.4	47.4	43.9	-3.5	80.6	83.2	2.6
Spain	18.3	16.3	-2.0	36.4	38.3	1.9	72.0	65.3	-6.7
Sweden	10.1	11.6	1.5	26.9	27.8	0.9	73.8	73.3	-0.5
Switzerland	8.0	9.9	1.9	35.3	42.4	7.1	53.7	55.5	1.8
United Kingdom	16.8	11.6	-5.2	27.1	38.2	11.1	56.5	61.1	4.6
United States	24.1	28.9	4.8	27.7	42.4	14.7	47.4	50.6	3.2

Source: For Report Card 11, data are from the HBSC 2009/2010 report. For Report Card 7, data are from the HBSC 2001/2002 report.

ii) Risk behaviours. Four indicators are used in both Report Cards to provide a snapshot of youth risk-taking behaviours: cigarettes, alcohol and cannabis consumption, as well as the teenage fertility rate.

Table 7 shows a general convergence toward less risky behaviours. Between 2003 and 2009, the reduction in the adolescent fertility rates was on average close to 4 per cent. The variations are larger in those countries that reported higher percentages at the initial level. Thus the greatest changes are recorded by countries such as Austria, the Czech Republic and Hungary. Also, the same rate dropped by more than 10 points in the United States, although the rate still remains the highest in 2009. The only countries where there was an increase in adolescent fertility rates were Belgium, Spain and the United Kingdom, the latter also representing an exception in the overall trend considering the high adolescent fertility rate recorded in 2003.

Over the last decades, the percentage of young people who smoke cigarettes at least once a week decreased on average by 3.6 per cent (Table 7). All countries followed the same trend with the exception of Greece and Sweden where the figure remained stable.

Table 7 shows a similar result in terms of changes in drinking behaviour; the only exceptions are the Czech Republic (+7.5), Spain (+3.4), Hungary (+1.9), France (+0.9) and Finland (+0.3). In general however, the percentage of young people who reported having been drunk on more than two occasions decreased by 2.3 points between 2001/2002 and 2009/2010. The largest variation was recorded by the United Kingdom (-10.4) followed by Germany (-6.2).

Lastly, the percentage of young people who report having used cannabis in the last twelve months fell on average by 6 points between the early and late 2000s (Table 7). The largest variation was recorded by the United Kingdom (-16.7) followed by Switzerland (-13.8) and Canada (-12.5). The only countries that reported an increase were Greece (+2.3), Sweden (+0.8) and Finland (+0.5).

Table 7 *Changes between RC7 and RC11 in: adolescent fertility rate; percentage of young people aged 11, 13, and 15 who reported smoking at least once a week; percentage of young people aged 11, 13, and 15 who report having been drunk on more than two occasions; percentage of young people aged 11, 13, and 15 who report having used cannabis in the last 12 months.*

	Adolescent fertility			Smoking			Drink			Cannabis		
	RC7	RC11	difference	RC7	RC11	difference	RC7	RC11	difference	RC7	RC11	difference
Austria	22.0	11.6	-10.4	13.2	11.7	-1.5	15.3	14.5	-0.8	11.7	10.0	-1.7
Belgium	11.0	13.0	2.0	9.9	6.9	-3.0	13.5	11.4	-2.1	22.7	16.1	-6.6
Canada	20.0	12.9	-7.1	7.5	4.0	-3.5	19.8	15.7	-4.1	40.5	28.0	-12.5
Czech Republic	23.0	10.3	-12.7	14.5	13.1	-1.4	15.0	22.5	7.5	27.1	21.5	-5.6
Denmark	8.0	5.6	-2.4	7.8	5.9	-1.9	29.0	23.5	-5.5	21.4	11.5	-9.9
Finland	10.0	9.3	-0.7	14.0	9.0	-5.0	24.7	25.0	0.3	7.5	8.0	0.5
France	10.0	6.7	-3.3	11.6	9.0	-2.6	8.1	9.0	0.9	27.6	22.5	-5.1
Germany	14.0	7.5	-6.5	16.6	6.2	-10.4	18.0	11.8	-6.2	18.6	8.6	-10.0
Greece	17.0	10.8	-6.2	6.4	6.4	0.0	10.6	10.0	-0.6	4.3	6.6	2.3
Hungary	27.0	15.4	-11.6	12.7	11.8	-0.9	16.7	18.6	1.9	12.4	10.5	-1.9
Ireland	15.0	14.0	-1.0	9.9	5.6	-4.3	14.4	12.2	-2.2	20.1	13.1	-7.0
Italy	8.0	5.6	-2.4	11.0	9.5	-1.5	9.9	7.2	-2.7	20.6	16.6	-4.0
Netherlands	5.0	4.7	-0.3	10.6	6.7	-3.9	12.8	7.1	-5.7	21.7	17.0	-4.7
Norway	10.0	8.3	-1.7	9.8	3.8	-6.0	15.1	10.8	-4.3		4.5	
Poland	16.0	13.8	-2.2	11.6	7.9	-3.7	15.9	15.3	-0.6	15.2	14.6	-0.6
Portugal	23.0	15.1	-7.9	12.8	4.9	-7.9	13.0	9.9	-3.1	19.8	10.1	-9.7
Spain	9.0	11.9	2.9	13.3	8.2	-5.1	10.7	14.1	3.4	30.8	24.1	-6.7
Sweden	9.0	6.2	-2.8	6.7	6.4	-0.3	15.5	10.2	-5.3	4.7	5.5	0.8
Switzerland	5.0	4.3	-0.7	11.0	7.7	-3.3	13.6	10.9	-2.7	37.9	24.1	-13.8
United Kingdom	28.0	29.7	1.7	12.5	5.6	-6.9	30.1	19.7	-10.4	34.1	17.4	-16.7
United States	46.0	35.7	-10.3	7.3	4.1	-3.2	11.6	6.4	-5.2	31.5	22.0	-9.5

Source: For Report Card 11, data are from the World Development Indicator database and the HBSC 2009/2010 report. For Report Card 7, data are from the World Development Indicator database and the HBSC 2001/2002 report.
Notes: For *Adolescent fertility rate,* in RC7 data refer to 2003, while in RC11 data refer to 2009. For *Smoking, drink,* and *cannabis,* RC7 data refer to 2001/2002, while RC11 data refer to 2009/2010.

iii) Experience of violence. This component is based on two indicators: the percentage of young people (aged 11, 13 and 15) involved in fighting in the last 12 months and those reporting having being bullied in the last 2 months.

Between 2001/2002 and 2009/2010, these two indicators followed the same trend. Indeed, Table 8 shows on average a decrease both in the number of young people involved in fighting and in the number of bullying victims by 2.5 and 3.9 percentage points respectively. Finland and Greece are the only countries where both indicators increased. The percentage of young people involved in fighting also increased in Spain, while that of young people being bullied rose in Belgium, Hungary and Ireland (Table 8).

On the other hand, Denmark and the United Kingdom are among the countries that recorded the most outstanding performance both in terms of reduction in the percentage of young people involved in fighting and that of young people being bullied. Italy also recorded impressive results, especially in terms of the reduction in the percentage of young people being bullied which decreased by 16 points (Table 8).

Table 8 *Changes between RC7 and RC11 in the percentage of young people aged 11, 13 and 15 who reported having been involved in fighting at least once in the previous twelve months; and those who report having being bullied at least once in the past couple of months.*

	Fighthing			Being bullied		
	RC7	RC11	Difference	RC7	RC11	Difference
Austria	39.3	36.7	-2.6	44.0	40.3	-3.7
Belgium	45.3	39.1	-6.2	35.0	37.7	2.7
Canada	36.1	35.8	-0.3	37.2	34.9	-2.2
Czech Republic	48.3	44.8	-3.5	16.1	15.6	-0.4
Denmark	39.0	30.2	-8.8	31.5	19.2	-12.2
Finland	25.3	28.3	3.0	24.0	30.1	6.2
France	37.8	35.3	-2.5	35.1	34.0	-1.0
Germany	28.4	23.0	-5.4	36.5	30.0	-6.5
Greece	44.8	49.3	4.5	24.5	27.7	3.2
Hungary	48.2	43.3	-4.9	22.8	27.6	4.7
Ireland	40.2	35.3	-4.9	26.0	28.0	2.1
Italy	38.6	36.0	-2.6	27.3	10.9	-16.3
Netherlands	36.6	33.3	-3.3	29.6	24.3	-5.3
Norway	36.9			32.7	25.9	-6.8
Poland	39.1	35.6	-3.5	30.1	25.9	-4.2
Portugal	35.1	28.6	-6.4	48.2	38.3	-9.9
Spain	40.3	55.4	15.1	26.0	14.6	-11.3
Sweden	35.3	31.0	-4.3	15.0	11.8	-3.3
Switzerland	31.7	29.0	-2.7	40.5	36.1	-4.4
United Kingdom	44.1	36.0	-8.1	34.9	27.9	-7.0
United States	36.4	34.0	-2.4	34.0	27.5	-6.5

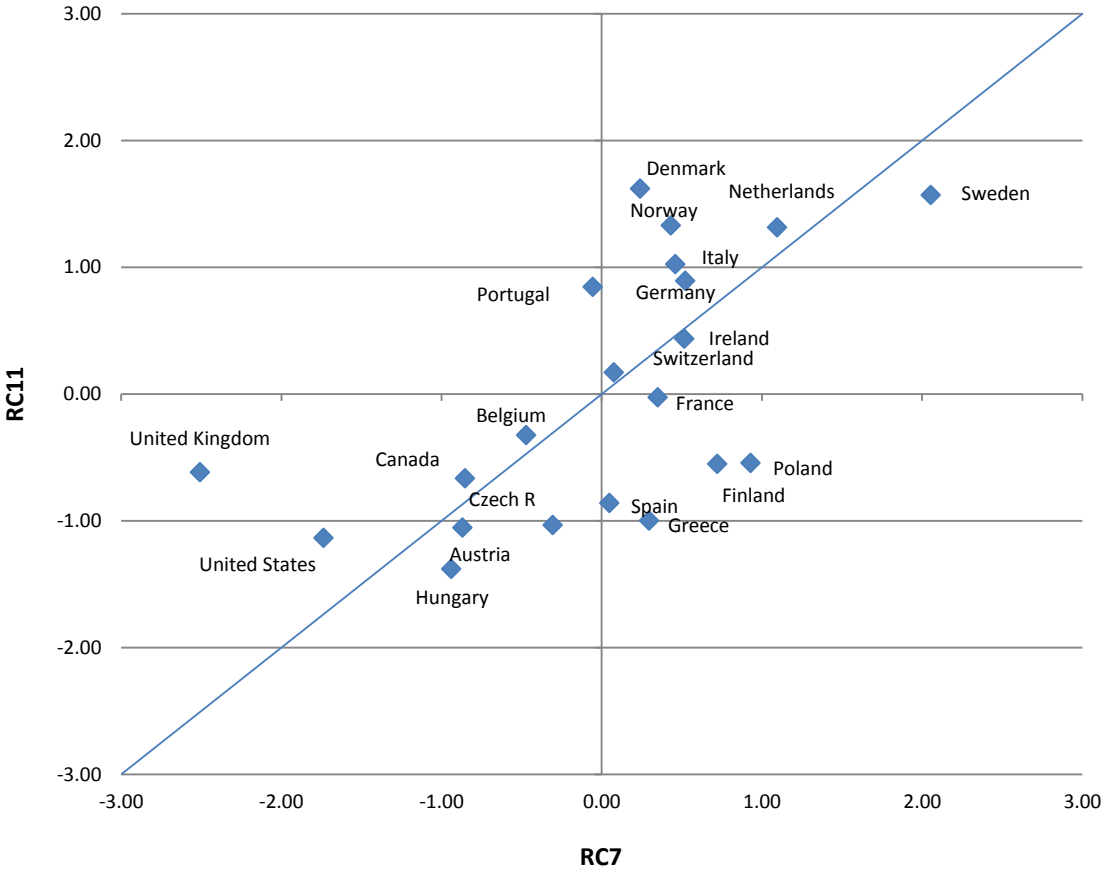
Source: For Report Card 11, data are from the HBSC 2009/2010 report. For Report Card 7, data are from the HBSC 2001/2002 report.

iv) Findings for children's behaviour and lifestyles during the last decade. Figure 6 shows the changes in the behaviour and lifestyles dimension for those countries with sufficient data available. As reported above, there is a general convergence towards healthy and less risky behaviours. On average, there is an improvement in child nutritional habits and a decrease in the percentage of children involved in dangerous behaviours or violent experiences.

Among the most interesting changes, is the case of the United Kingdom which performed much worse than the other countries in the early 2000s. However, its position improved substantially during the last decade reaching a value close to the average. Indeed, changes were positive in all indicators, excluding the adolescent fertility rate.

In contrast, Finland, Greece, Poland and Spain performed worse than in the previous period, recording a score below the average in the late 2000s. In Finland, Greece and especially in Spain this is due to an increase in the number of young people involved in violent experiences, while in Poland there was a worsening of all indicators related to health behaviour.

Figure 6 *Changes in the relative ranking of children's behaviour and lifestyles dimension during the last decade*



Source: Authors' elaboration.

4. MODIFIED CHILD WELL-BEING INDEX: A COMPARISON BETWEEN THE TWO REPORT CARDS

As reported above, the aim of this paper is to present an inter-temporal comparison of child well-being in rich countries. In order to do so we constructed a modified child well-being index to establish a measure of the relative performance of a country with respect to others in the early and late 2000s.

Table 9 presents the main findings of the analysis. It is possible to see that the positions are relatively stable: indeed, the Netherlands and the Scandinavian countries are still in the best performing group while the United States is still in the bottom of the rank. For Central and Eastern European countries, it is possible to observe that material conditions improved and the behaviours of young people became more similar to those of their peers living in western economies even though child well-being on the whole has not improved.

Table 9 *Modified child well-being index, Report Cards 7 and 11*

	RC7					RC11					
	Material Well-being	Health and Safety	Education	Behaviours and Risks	Modified Child Well-being Index	Material Well-being	Health and Safety	Education	Behaviours and Risks	Modified Child Well-being Index	Difference
Portugal	19	8	21	14	16	15	8	15	7	11	**5**
Ireland	13	17	9	6	12	11	6	13	8	8	**4**
United Kingdom	12	18	20	21	20	12	16	18	14	16	**4**
Switzerland	5	14	13	12	11	6	15	8	9	8	**3**
Germany	10	13	8	7	7	9	10	5	5	5	**2**
Netherlands	6	4	2	2	3	2	3	2	4	1	**2**
Norway	1	9	10	8	4	1	4	6	3	2	**2**
Austria	11	21	17	18	18	8	21	17	19	17	**1**
Belgium	8	12	3	16	8	10	9	3	11	7	**1**
Hungary	20	16	14	19	19	19	18	9	21	18	**1**
Canada	9	15	12	17	14	13	20	7	15	14	**0**
Italy	18	11	19	5	14	17	13	19	6	14	**0**
Finland	4	1	1	4	2	3	1	1	13	3	**-1**
United States	17	19	15	20	20	21	19	16	20	21	**-1**
Denmark	3	3	11	11	4	4	17	10	1	6	**-2**
France	7	7	6	9	6	7	7	14	10	8	**-2**
Greece	14	20	18	10	16	18	12	20	17	18	**-2**
Poland	21	10	7	3	9	20	11	4	12	12	**-3**
Sweden	2	2	4	1	1	5	2	12	2	4	**-3**
Czech Republic	16	5	5	15	9	14	5	11	18	13	**-4**
Spain	15	6	16	13	13	16	14	21	16	18	**-5**

Source: Authors' elaboration.

Some noticeable changes in performance should be highlighted:

- On the one hand, France passed from the best to the intermediate group, while Spain moved from the intermediate to the worst performing group. For France, these findings are mainly related to the worsening conditions in education, while for Spain the setback is mainly due to the health and education dimensions.

- On the other hand, Portugal moved from the worst to the intermediate group while Belgium and Germany shifted from the intermediate to the best performing group. In Portugal, progress is recorded in three out of the four dimensions and in particular in material well-being, education, and behaviour and risks. Germany improved its ranking in all dimensions, while Belgium only in health, and behaviour and risk).

- On the whole, Portugal, Norway and the United Kingdom recorded the most positive changes, while Poland, Spain and Sweden recorded the most negative changes (Table 9).

5. CONCLUSIONS

Notwithstanding some limitations, this paper provides an inter-temporal analysis of child wellbeing highlighting the changes recorded by advanced economies in the last decade. Indeed, it represents a further step in the study of child well-being as it allows investigation of successes and failures in promoting the living standards of children in developed countries, not possible in more widespread static analyses.

Countries such as Portugal and the United Kingdom which had performed poorly at the time of Report Card 7 improved their ranking; also Ireland and Norway showed remarkable progress although they started from a better position. Our analysis is also useful in identifying where problems are and in extracting useful policy implications. For example, the improvement in education outcomes in Portugal, driven by policies targeted towards the most disadvantaged students, could be taken as good practice and useful lessons for other countries. The United Kingdom also presents an interesting case. Following the publication of Report Card 7 – which showed the United Kingdom at the bottom of the international league table of child well-being – an extensive national debate began. A new strategy for children was published that involved efforts to improve material well-being through the child poverty strategy and a Child Poverty Act, a child health plan and continued efforts to increase further education rates and raise standards. Furthermore, large investments were made in childcare and institutional transformation of services for children.[6]

These findings are particularly meaningful in the current context as the economic crisis has led many governments to cut back social expenditure, especially in recent times (Martorano et al, 2012). These measures however only provide an “ineffective adjustment” as they prevent social and economic development by pushing countries into a “fiscal trap”. Once more it should be stressed that the promotion of child well-being is crucial not only for ethical reasons but also to assure and promote development in the future.

[6] See Bradshaw (2011).

Data and sources for all indicators used in the inter-temporal analysis						
Dimension name	**Component name**	**Indicator description**	**Date(s) on early 2000s**	**Date(s) on late 2000s**	**Source(s) on early 2000s**	**Source(s) on late 2000s**
Material well-being	Monetary deprivation	***Child poverty rate***	2000, 1999 (Austria and Greece), 2001 (Germany and Switzerland), 1995 Spain.	Data refer to 2010 with the exception of: Canada (2009) and USA (2007).	Bradshaw et al (2007)	Eurostat for the European countries. For Canada, the source is the 2009 SLID survey. The source used for US is the 2007 PSID. Lastly, for Canada and US, the income data used are those standardized in the Cross National Equivalent File (CNEF).
	Material Deprivation	***Family affluence scale*** % 11, 13 and 15 year olds with low family affluence scale (FAS)	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
Health and safety	Health at birth	***Infant mortality*** number of infants dying before reaching one year of age, per 1,000 live births in a given year	2003, except for 2002 (Canada and the USA)	2010	OECD health data 2005	World Development Indicators
		Low birth weight % births under 2500 grams	2003, except for 2002 (Canada, Greece, Switz.), 2001 (Spain, Ireland, Italy, the Netherlands), 1995 (Belgium).	The data refer to 2009, with some exceptions: for Belgium and Netherlands data refer to 2008; for France data refer to 2007.	OECD health data 2005	OECD STATS at http://stats.oecd.org/
	Immunisation rates	***Measles*** % children aged 12-23 months	2003	2010	World Bank (2005) World Development Indicators	Immunization Summary for 2010 data (the 2012 edition) – jointly produced by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO)
		DPT3 % children aged 12-23 months	2002	2010	World Bank (2005) Health, Nutrition and Population Data	Immunization Summary for 2010 data (the 2012 edition) – jointly produced by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO)
		Polio % children aged 12-23 months	2002	2010	World Bank (2005) Health, Nutrition and Population Data	Immunization Summary for 2010 data (the 2012 edition) – jointly produced by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO)

Dimension name	Component name	Indicator description	Date(s) on early 2000s	Date(s) on late 2000s	Source(s) on early 2000s	Source(s) on late 2000s
Education	Educational achievement	***Maths literacy*** Mean maths literacy score	2003	2009	OECD PISA 2003 Database	OECD PISA (2009) reported in EdStats World Bank
		Science literacy Mean science literacy score	2003	2009	OECD PISA 2003 Database	OECD PISA (2009) reported in EdStats World Bank
		Reading literacy Mean reading literacy score	2003	2009	OECD PISA 2003 Database	OECD PISA (2009) reported in EdStats World Bank
	Educational participation	***Staying on*** Enrolment rates of 15-19 year-olds	2003	The data refer to 2009 with the exception of Greece and Luxembourg (2008).	OECD Education at a Glance 2005 - table c1.2	OECD (2011), Education at a Glance 2011. Data for non OECD countries (Bulgaria, Cyprus, Latvia, Lithuania, Malta, Romania) data are from EUROSTAT
		NEET Young people not in employment and not in any education and training (in % points of NEET rates)	2003, 2002 for Iceland, Italy, the Netherlands, and the United States.	The data refer 2009 and 2010 for countries with data extracted from EUROSTAT with the exception of Luxembourg (2009)	OECD Education at a Glance 2005 - table c4.4a	OECD (2011), Education at a Glance 2011 and EUROSTAT for Bulgaria, Cyprus, Latvia, Lithuania, Luxembourg, Malta, Norway and Romania

Dimension name	Component name	Indicator description	Date(s) on early 2000s	Date(s) on late 2000s	Source(s) on early 2000s	Source(s) on late 2000s
Behaviour and lifestyles	Experience of violence	***Fighting*** % aged 11, 13 and 15 who report having been involved in fighting in the previous twelve months	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
		Being bullied % aged 11, 13 and 15 who report being bullied at least once in the past couple of months	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
	Health behaviour	***Obesity*** % aged 11, 13 and 15 who are overweight according to BMI	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
		Eating fruit % aged 11,13, 15 who eat fruit daily	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
		Eating breakfast % aged 11, 13, 15 who eat breakfast every school day	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
	Risk Behaviour	***Adolescent fertility rate*** Adolescent fertility rate (births per 1,000 women ages 15-19)	2003	2009	World Development Indicators	World Development Indicators
		Smoking % aged 11, 13 and 15 who smoke cigarettes at least once a week	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
		Drink % aged 11, 13 and 15 who report having been drunk on more than two occasions	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)
		Cannabis % aged 15 who report having used cannabis in the last 12 month	2001/02	2009/2010	Currie et al (2004)	Currie et al (2012)

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