



THE BOSTON CONSULTING GROUP

The 2018 SEDA focus on Poland

Includes comparison with EU and ROW

JULY 2018





Executive Summary

Intro to SEDA

SEDA 2018 analysis focusing on Poland

Overview of SEDA results

Ten year view of Poland

Ten year view of Poland vs. Peers





Poland

32nd/152

Current Level

2018 rank

(2009: 42nd / 152)

*Good and improving
well-being performance*

Over the last decade (slides 11-22), Poland...

- Improved in most dimensions, most notably in infrastructure, employment, environment and income
- Has a wealth to wellbeing coefficient of 1.22 in 2018, which is well above the global average and several of its EU peers

Compared to the EU, (slides 27-31), Poland...

- Performs better in the dimensions of economic stability, employment and education, but lags behind in other dimensions
- Has made stronger relative progress across most dimensions in the past decade, particularly in employment
- Has made slightly weaker relative progress in the dimension of education

Compared to the rest of the world (slides 32-36), Poland...

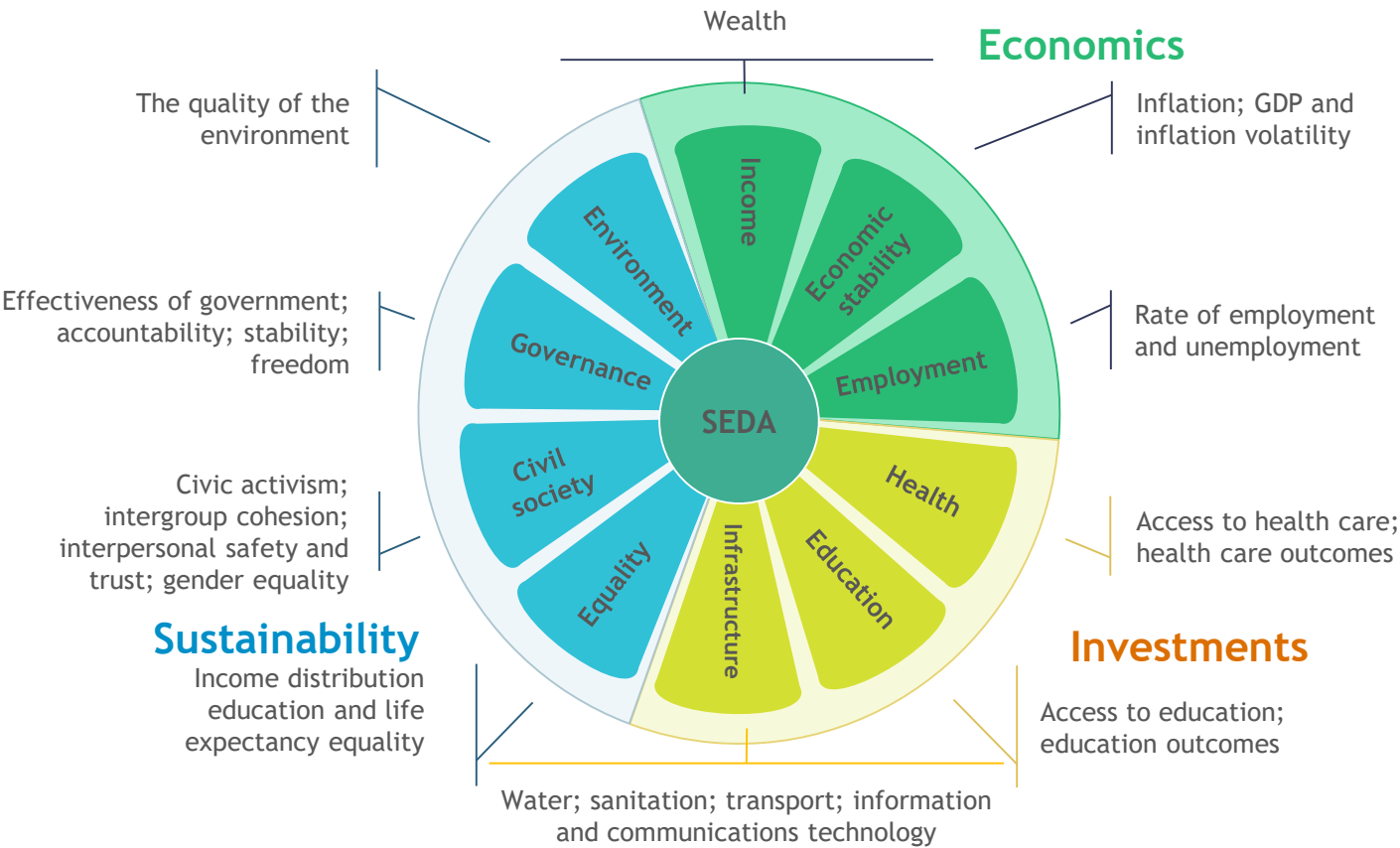
- Performs better in most dimensions and is pushing ahead in income, infrastructure, civil society and health
- Has made weaker relative progress in education, equality, governance and economic stability over the last decade

- Poland has made significant improvements across the dimensions of well-being in the past decade and is a top performer in its ability to convert wealth into wellbeing —

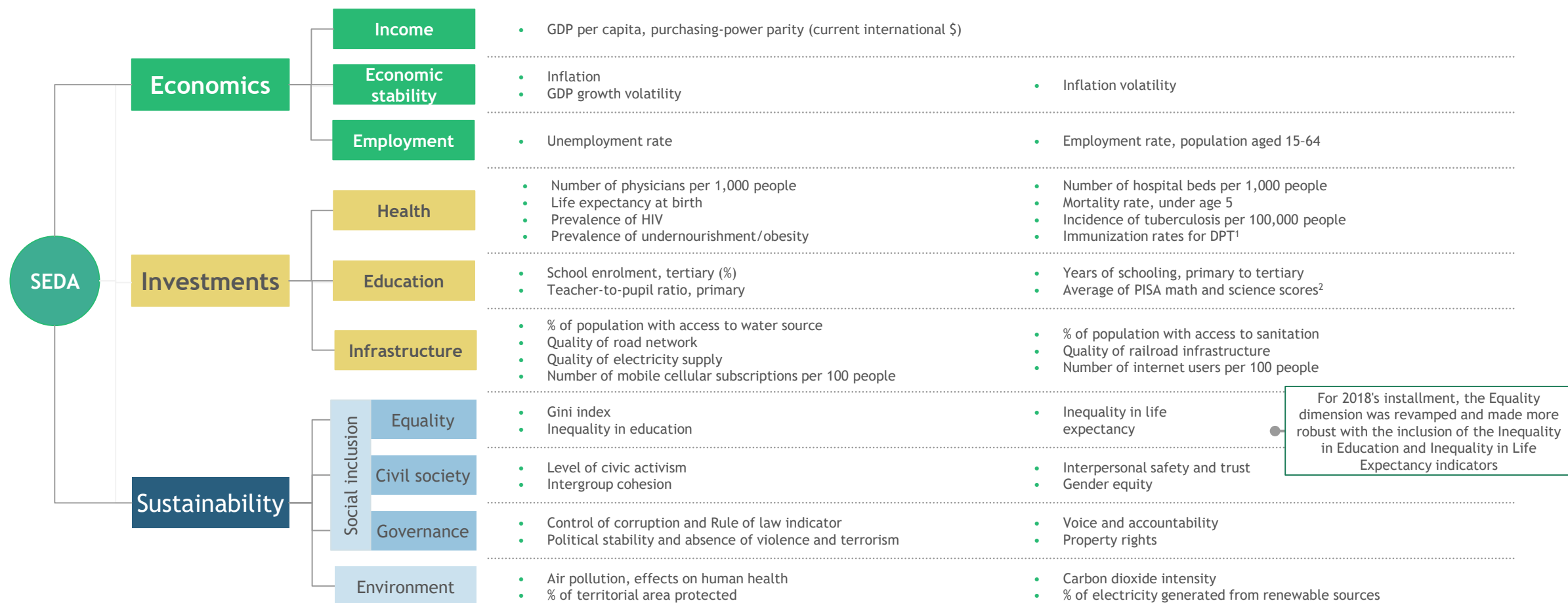


Intro to SEDA

SEDA Assesses Relative Well-being In Three Dimensions Comprised of 10 Dimensions



SEDA dimensions use 40 indicators - chosen to best characterize the dimensions without overlaps and capture differences across countries



1 DPT = Diphtheria, pertussis, and tetanus; 2 PISA = Programme for International Student Assessment.

SEDA facilitates analysis of well-being in three different ways



Definition

- Relative measure of a country's socioeconomic development based on 40 indicators normalized on a 0-100 scale. Besides the overall “SEDA” score, current level scores are calculated for 10 dimensions.
- Compares the initial and latest CL scores for a given period. For SEDA 2018 scores the change covers a 10-year period (based on data from 2007 to 2016). CL change is calculated overall and at the dimension level. Change is analysed both in terms of absolute score change and percentage change.
- Relative measure of a country's performance in converting wealth into well-being. Measures the difference between the SEDA CL score and the CL score that a country would be expected to have given its per capita income and the global average (coefficient = 1.0) relationship between income and CL score.

SEDA's time horizons

Current Level (CL)

Change in Current
Level
(CL Change)

Wealth to well-
being coefficient
(WWBc)

SEDA is a powerful way to assess and develop policies to increase a country's well-being

- ✓ Every government's ultimate customers are its citizens - the individuals for whom a country's socio-economic state needs to translate to tangible wellbeing benefits
- ✓ GDP cannot offer an adequate view on wellbeing, SEDA does, as it goes beyond economic indicators
- ✓ Since 2012, BCG has developed SEDA to support public policy makers, development organizations and other strategic decision makers make well-informed decisions to maximize citizen's well-being
- ✓ SEDA proposes a relative measure of well-being based on three elements — Economic, Investments, and Sustainability — that encompass 10 dimensions, represented by 40 publically available indicators
- ✓ SEDA offers a current snapshot of well-being, a measure of progress over time, and additionally it tells how well a country converts its wealth into well-being relative to other countries providing a robust assessment on strengths and weaknesses
- ✓ Methodologically consistent SEDA scores and coefficients were calculated with 10 years worth of data for the 2018 report - the indicators used were chosen to best characterize the dimensions without overlaps and capture differences across countries
 - In the 2018 installment, the Equality dimension was made more robust with the inclusion of the Inequality in Education and Inequality in Life Expectancy indicators
 - SEDA doesn't include subjective indicators but the strong correlation with the World Happiness Index suggests that improvements in SEDA well-being scores are reflected in subjective indexes
- ✓ Analyses are based on all 152 countries although charts usually highlight the Global Powerhouses - 36 countries comprised of 25 biggest economies and 25 most populous countries - representing 87% of the world's economy and 78% of the world's population

SEDA was developed to help public sector stakeholders develop actionable socio-economic dev. strategies

SEDA

An approach to assess and compare each country's levels of socio-economic development across a broad range of dimensions

Assessment



Assesses how well countries are translating their wealth into Well-being

- Compares SEDA scoring with countries' GDP level

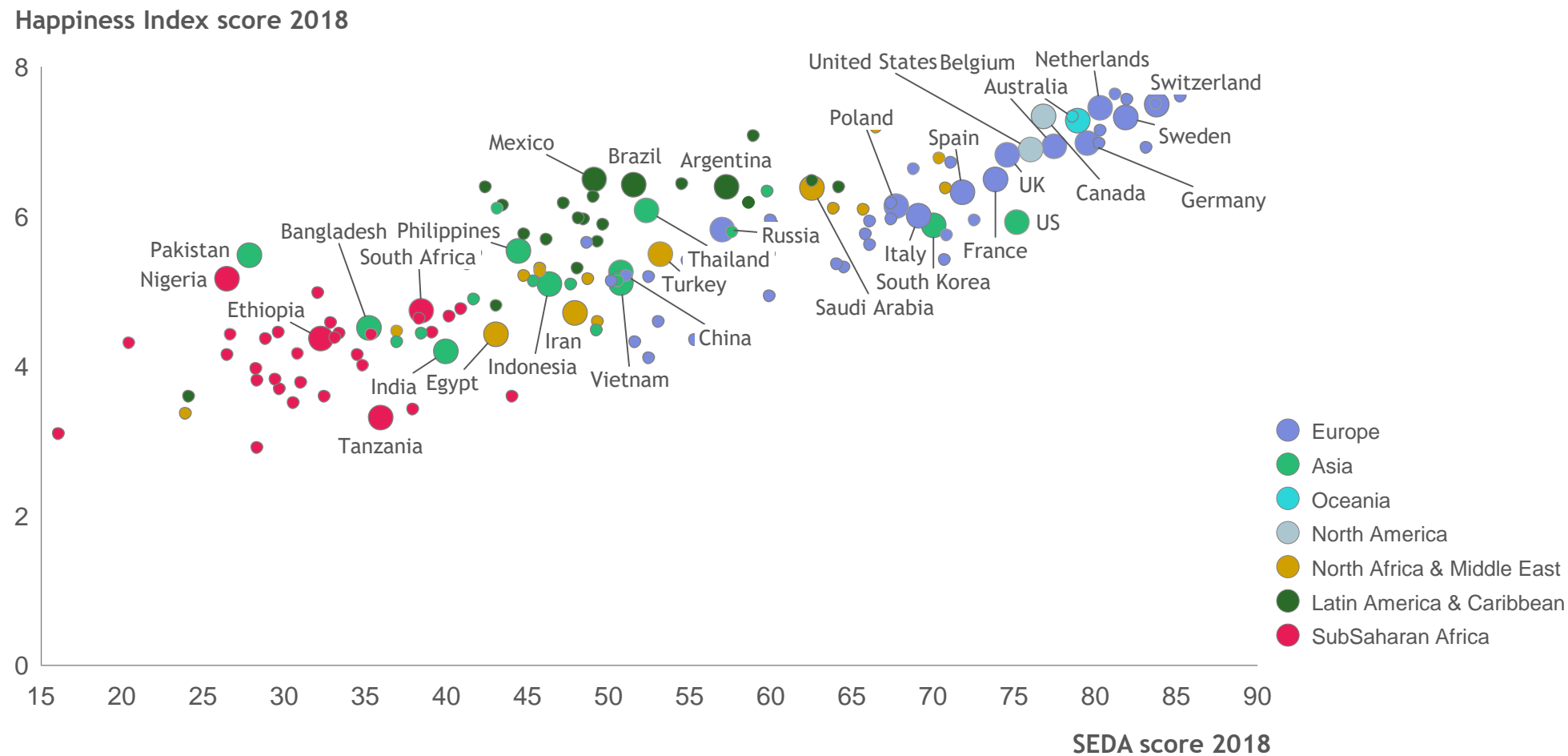
Provides a benchmark for countries to compare themselves against their peers

Ability to deep dive across 10 dimensions of development

- e.g. Health, Infrastructure, Government, Institutions...

Provides valuable insight for governments, public policy makers, development organizations and international corporations with global presence

SEDA does not use subjective indicators but SEDA scores are broadly in line with subjective-based measures such as the Happiness Index



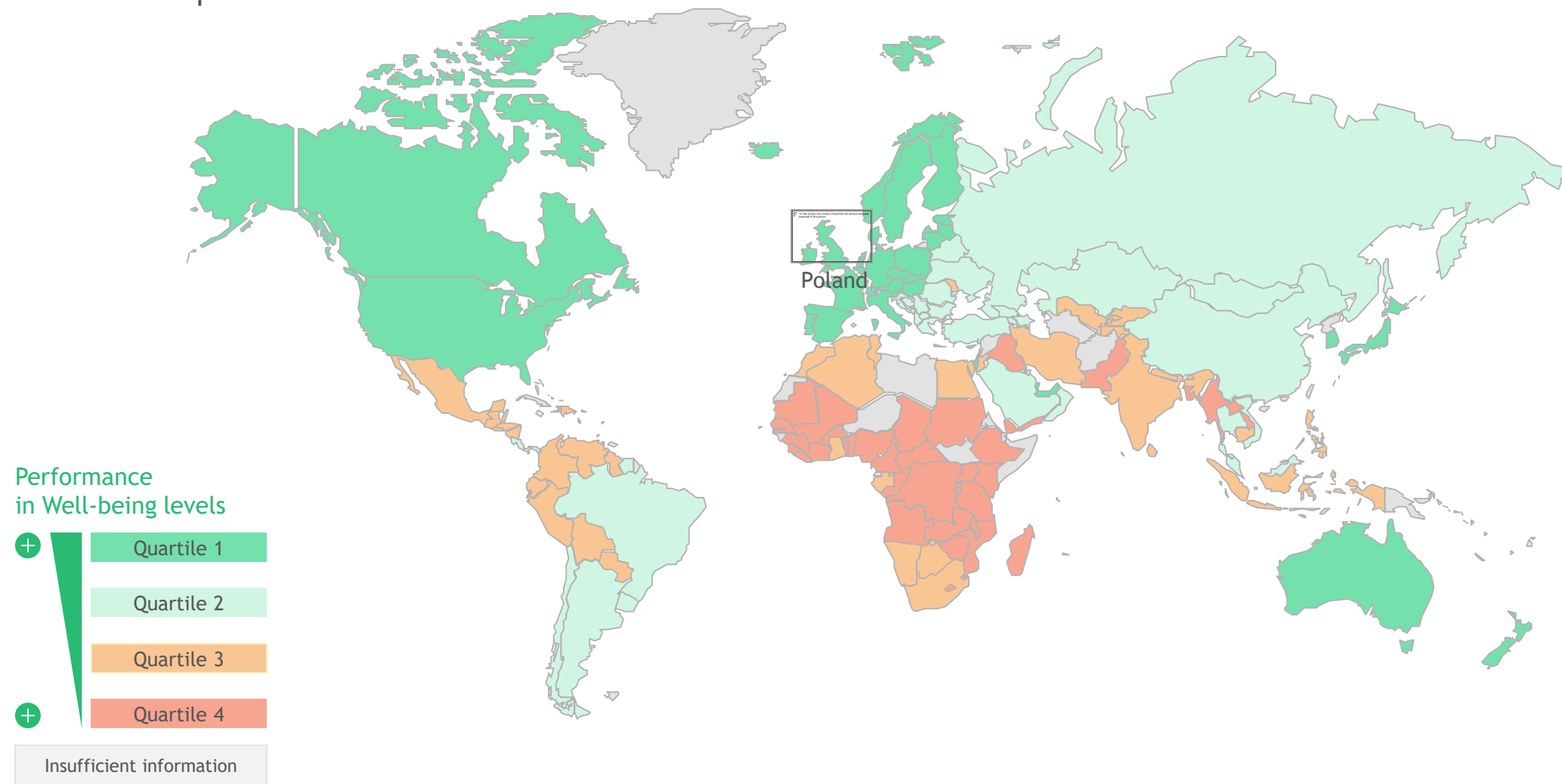
Note: The named countries constitute the 36 countries in our subset with the largest populations (top 25) and/or the largest economies (top 25); larger bubble sizes are Global powerhouses, smaller bubble sizes are rest of the world



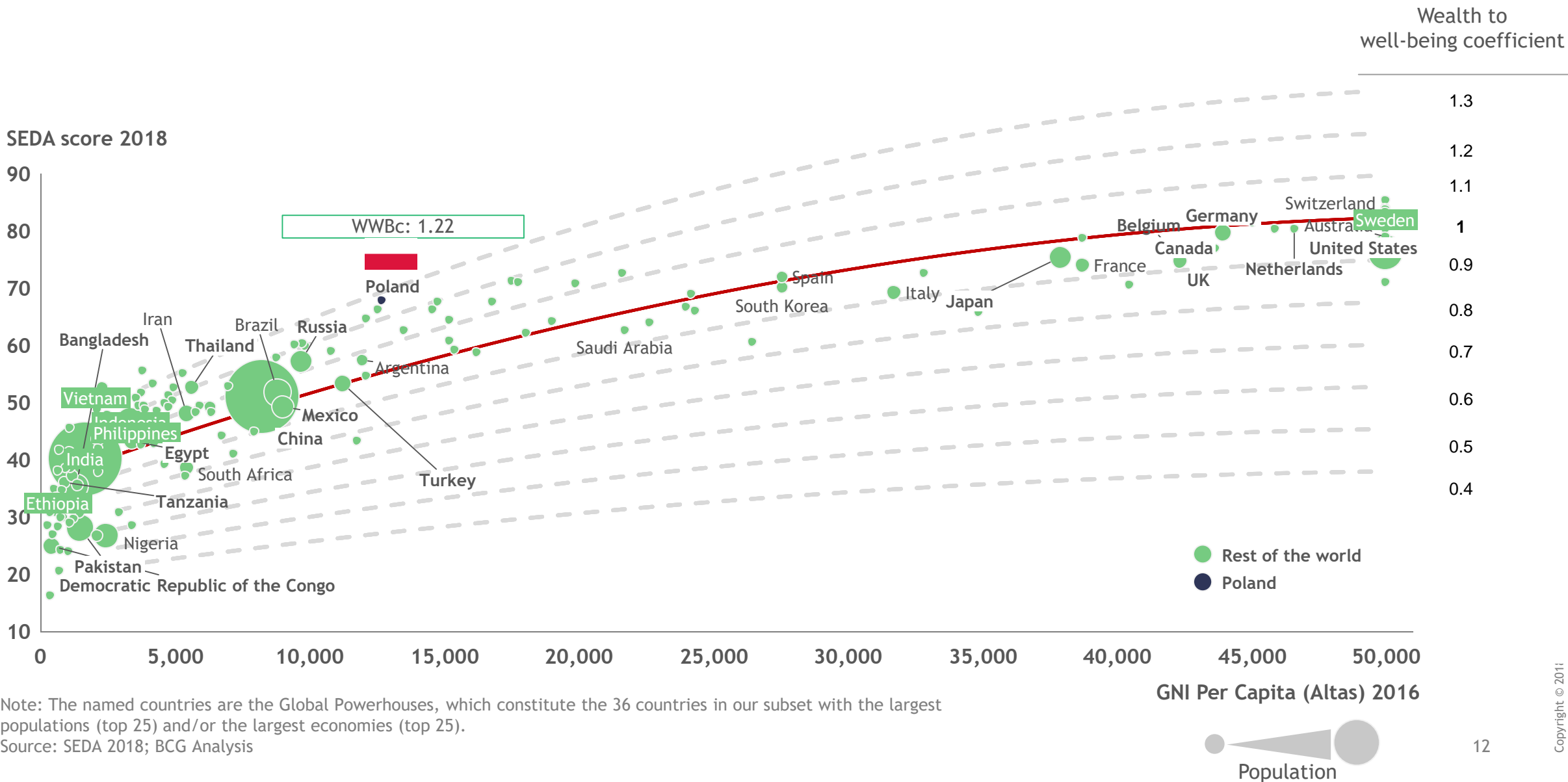
SEDA 2018 analysis focus on Poland

Wealthier countries show higher well-being levels

Poland is in quartile 1 of SEDA 2018

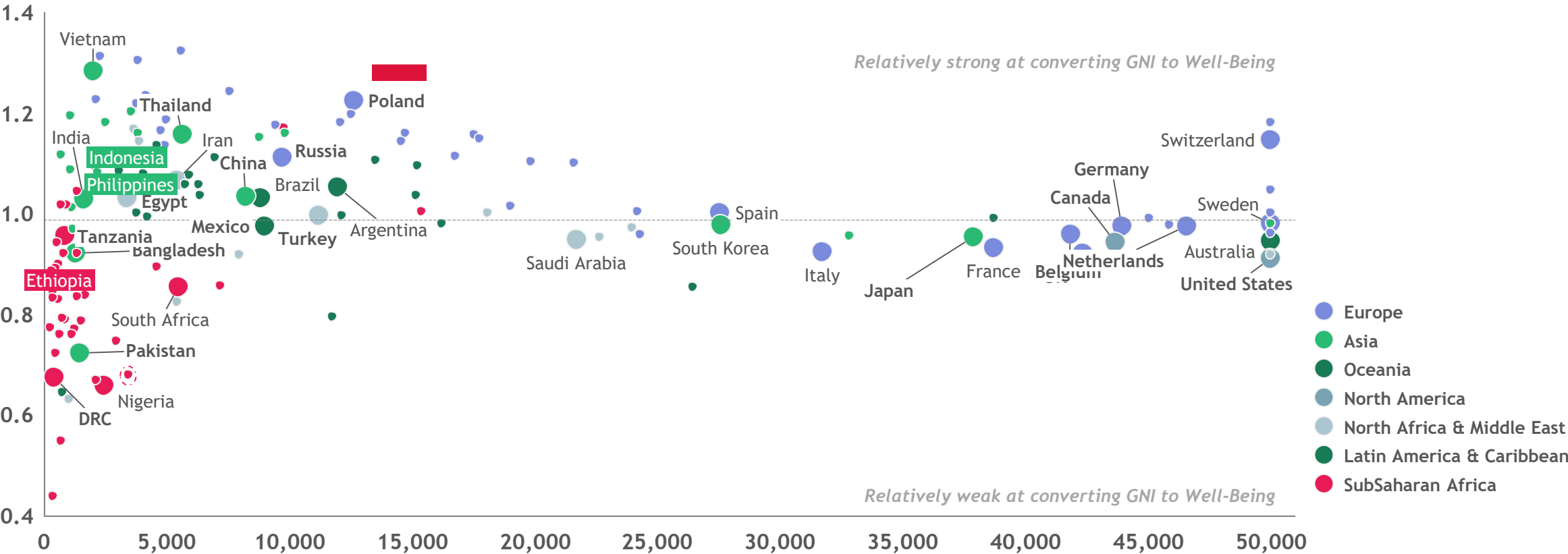


Poland is above average at converting wealth into well - being



Wealth to Well-being conversion varies even at similar income levels

Wealth-to-Wellbeing coefficient 2018

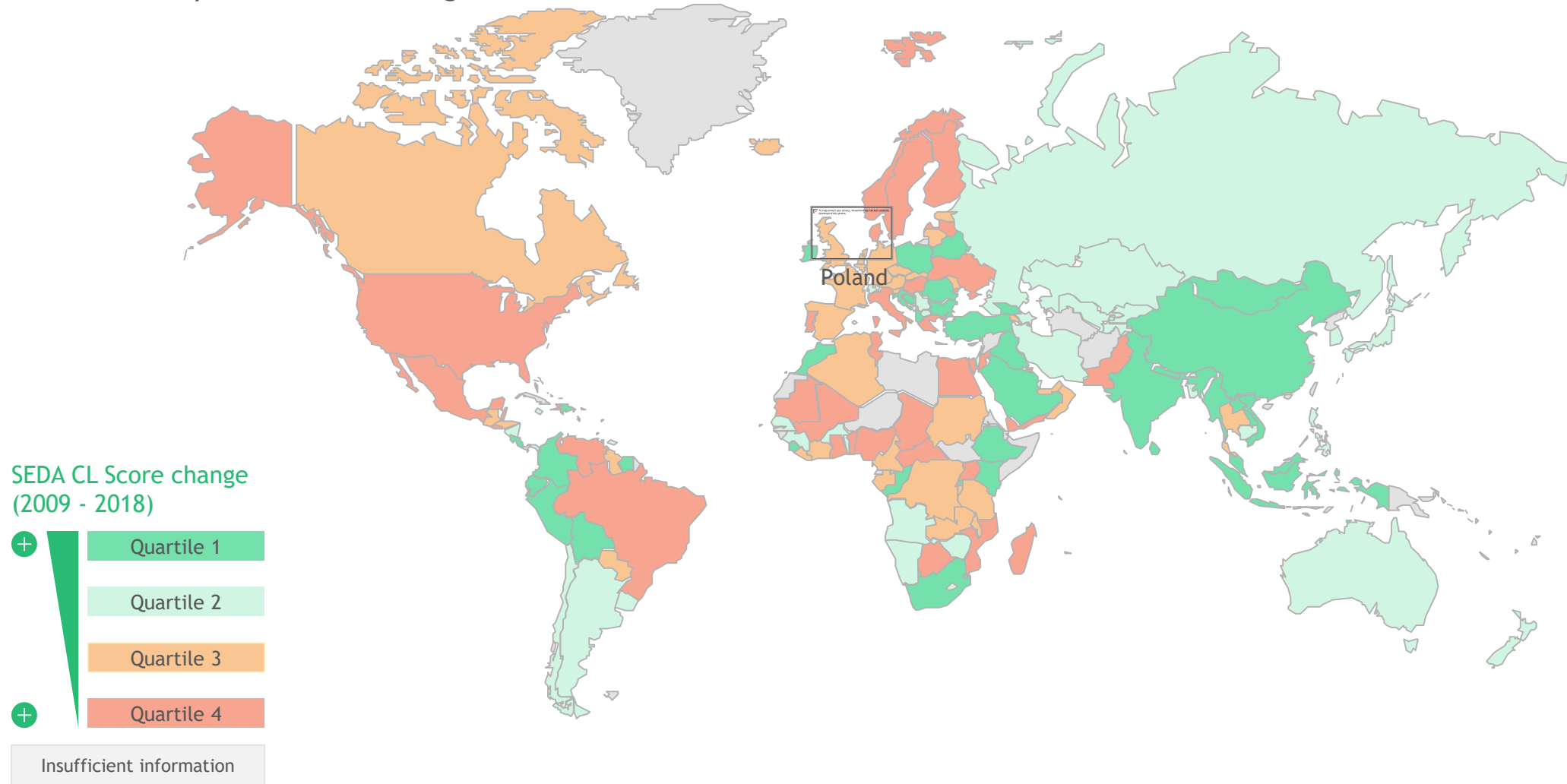


Note: The named countries constitute the 36 countries in our subset with the largest populations (top 25) and/or the largest economies (top 25); larger bubble sizes are Global powerhouses, smaller bubble sizes are rest of the world

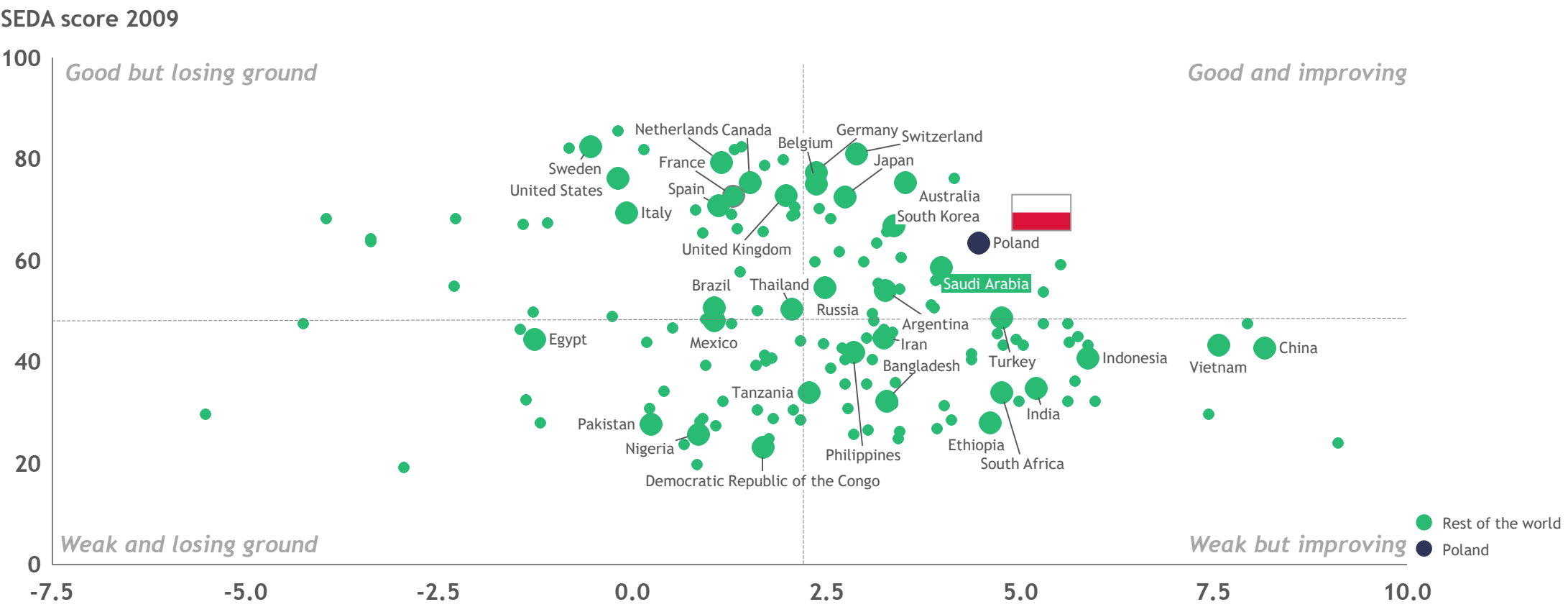
Source: SEDA results 2018

Change in current level scores over the past ten years shows a mixed picture

Poland is in quartile 1 of change in CL score



Overall, Poland's well being performance is good and improving



Note: The named countries constitute the 36 countries in our subset with the largest populations (top 25) and/or the largest economies (top 25); larger bubble sizes are Global powerhouses, smaller bubble sizes are rest of the world

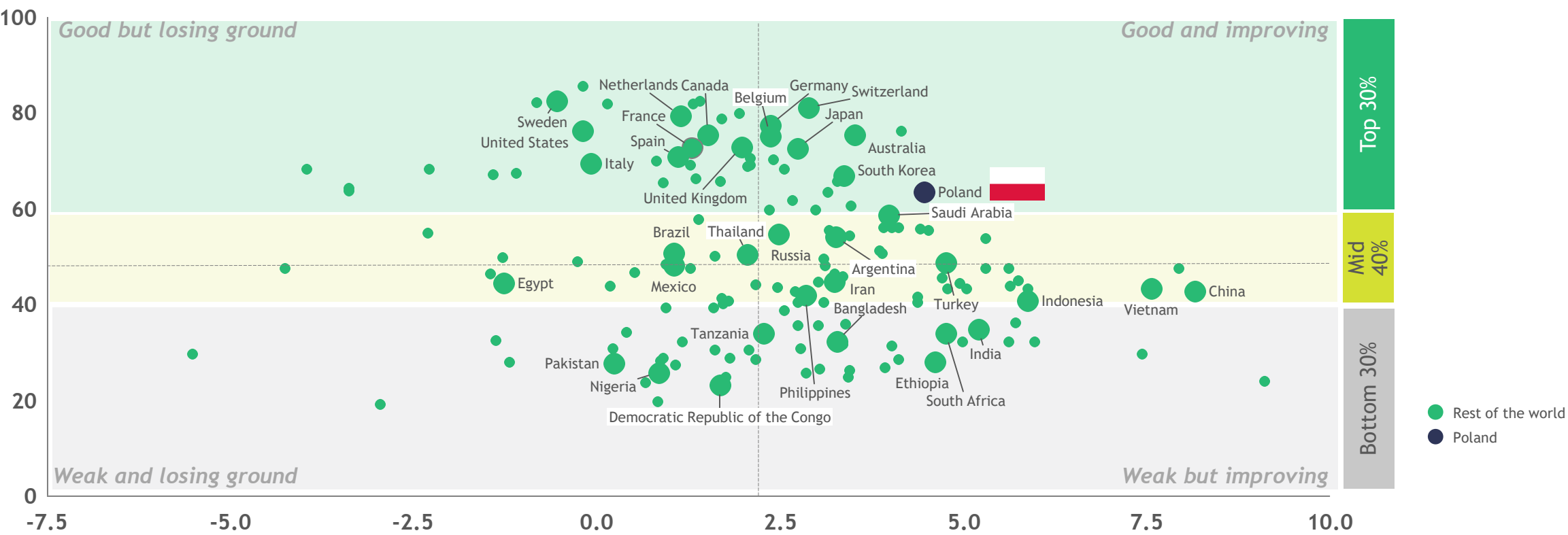
Source: SEDA results 2018



10 years view of Poland

In 2009, Poland was in Top 30% of SEDA well-being scores

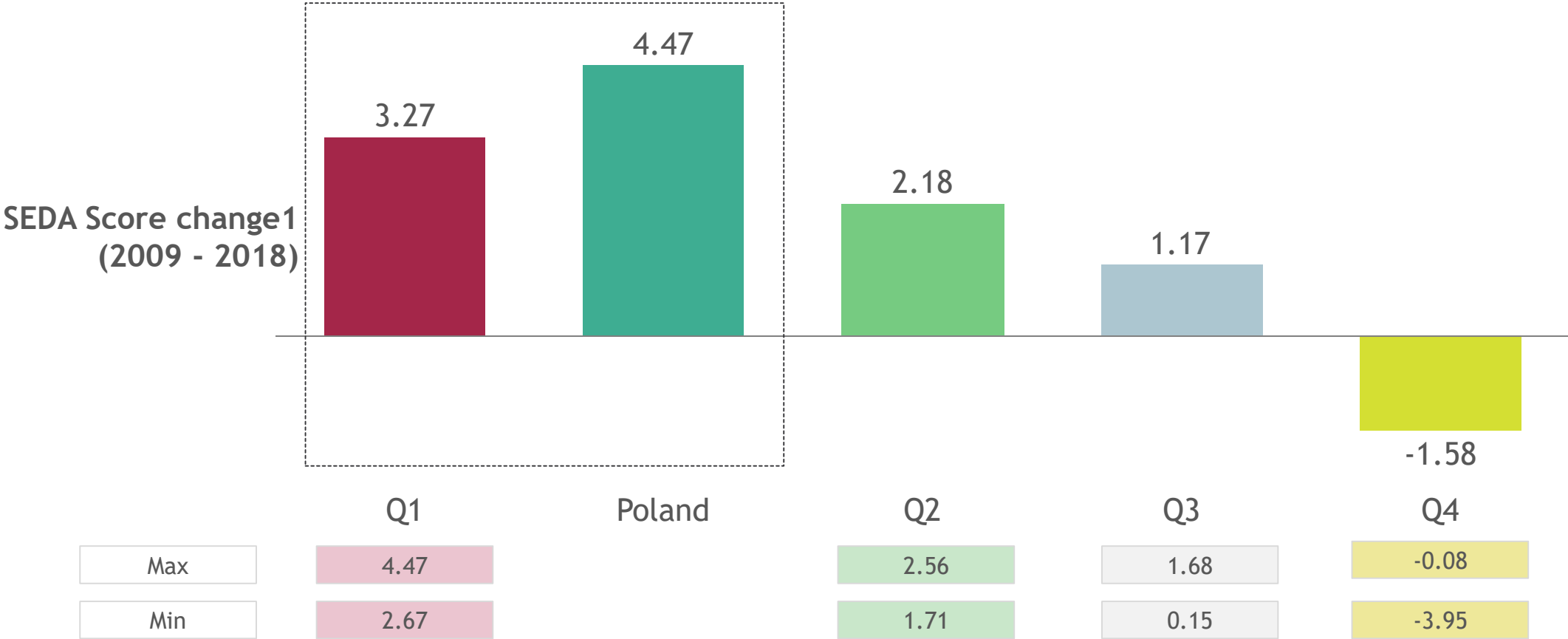
SEDA score 2009



Note: The named countries constitute the 36 countries in our subset with the largest populations (top 25) and/or the largest SEDA score change (2009-2018) economies (top 25); larger bubble sizes are Global powerhouses, smaller bubble sizes are rest of the world

Source: SEDA results 2018

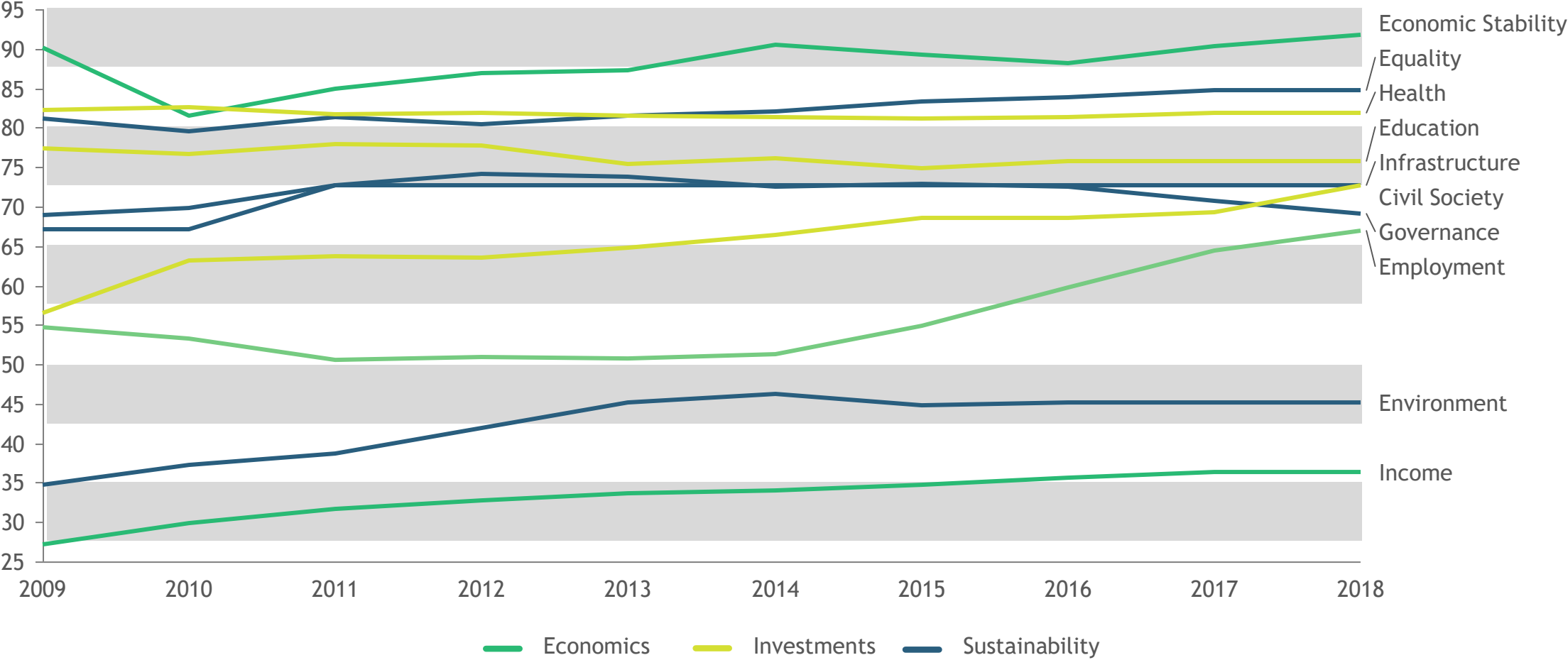
Of countries with a similar starting level of well-being, Poland is in the 1st quartile of change



1. Number depicted for quartiles is average SEDA score change
Note: Similar starting level includes countries in Top 30% of SEDA 2009

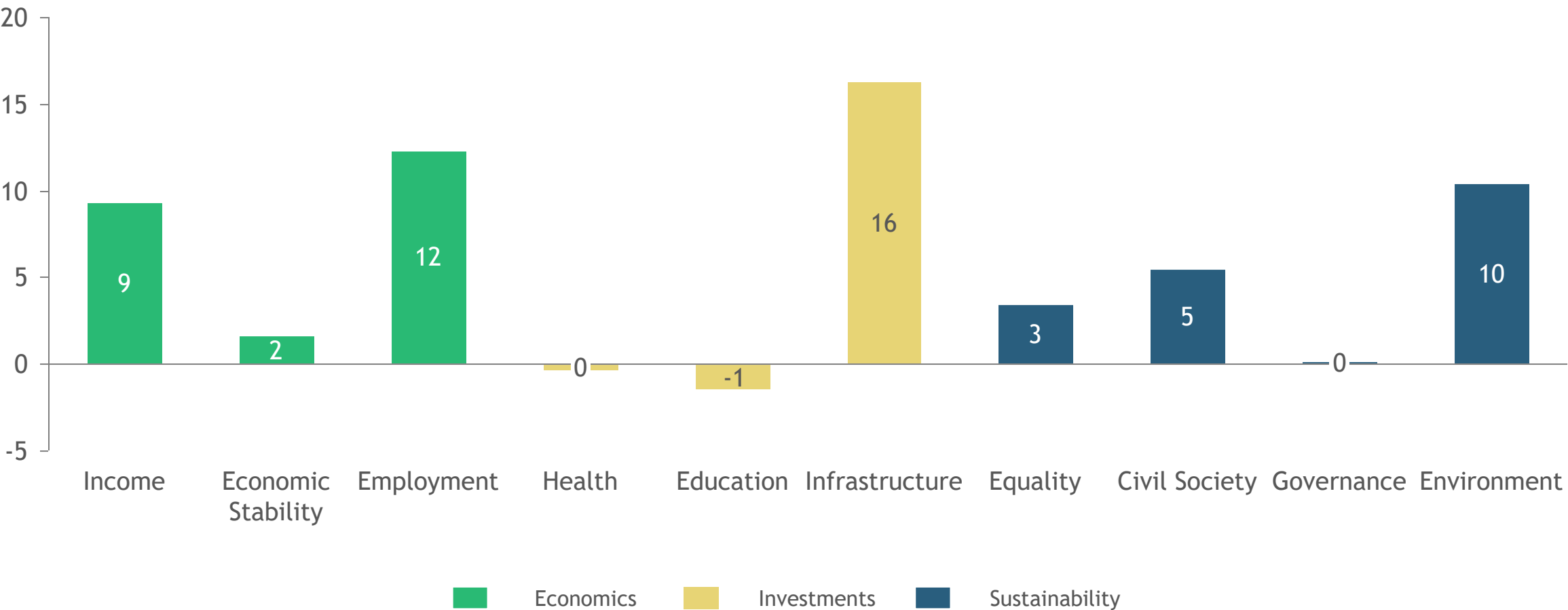
Most dimensions witnessed an improvement in the past ten years

Evolution of Current Level scores

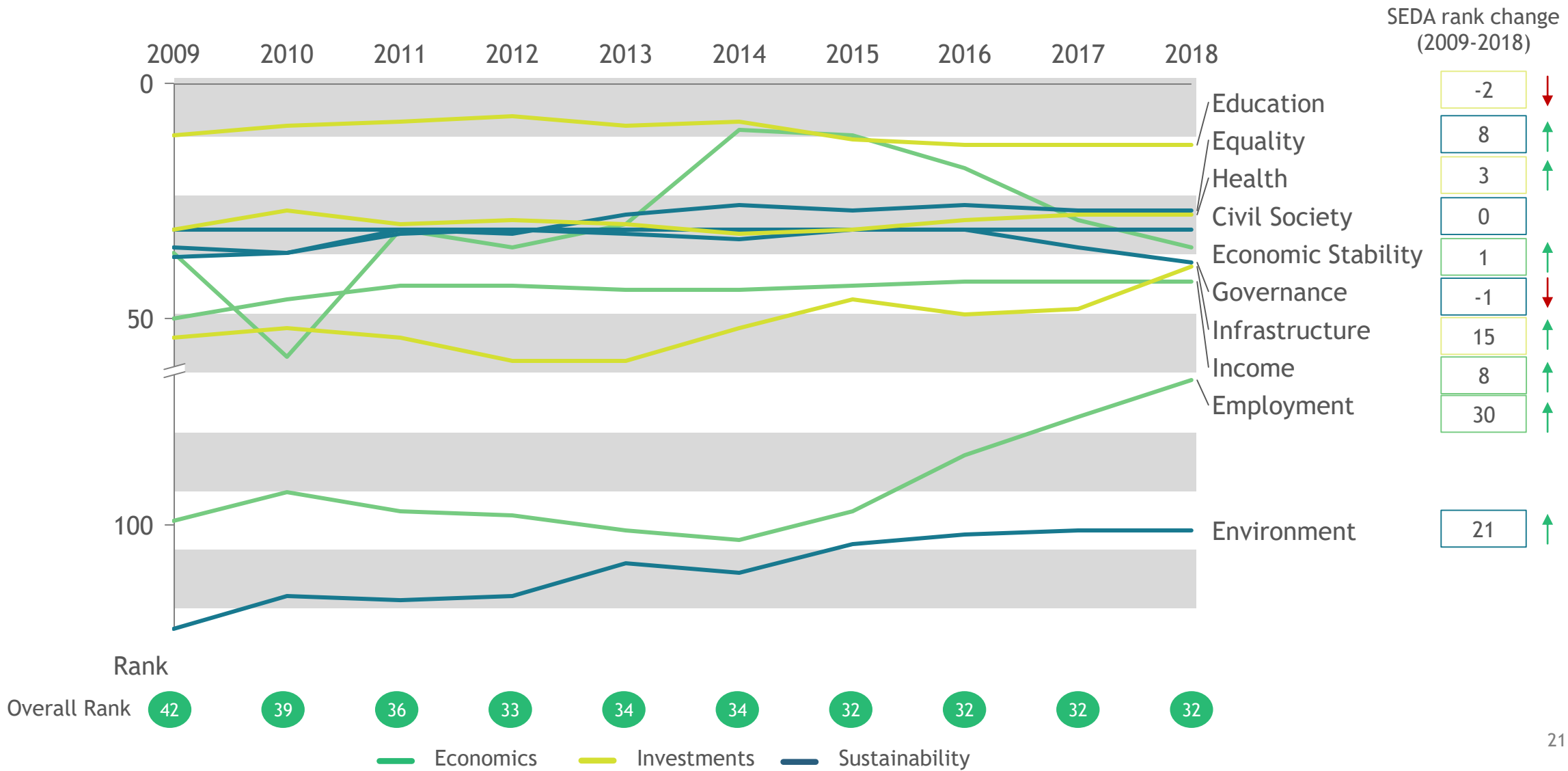


In the past decade, Poland improved in most dimensions, most notably in infrastructure, employment, environment and income

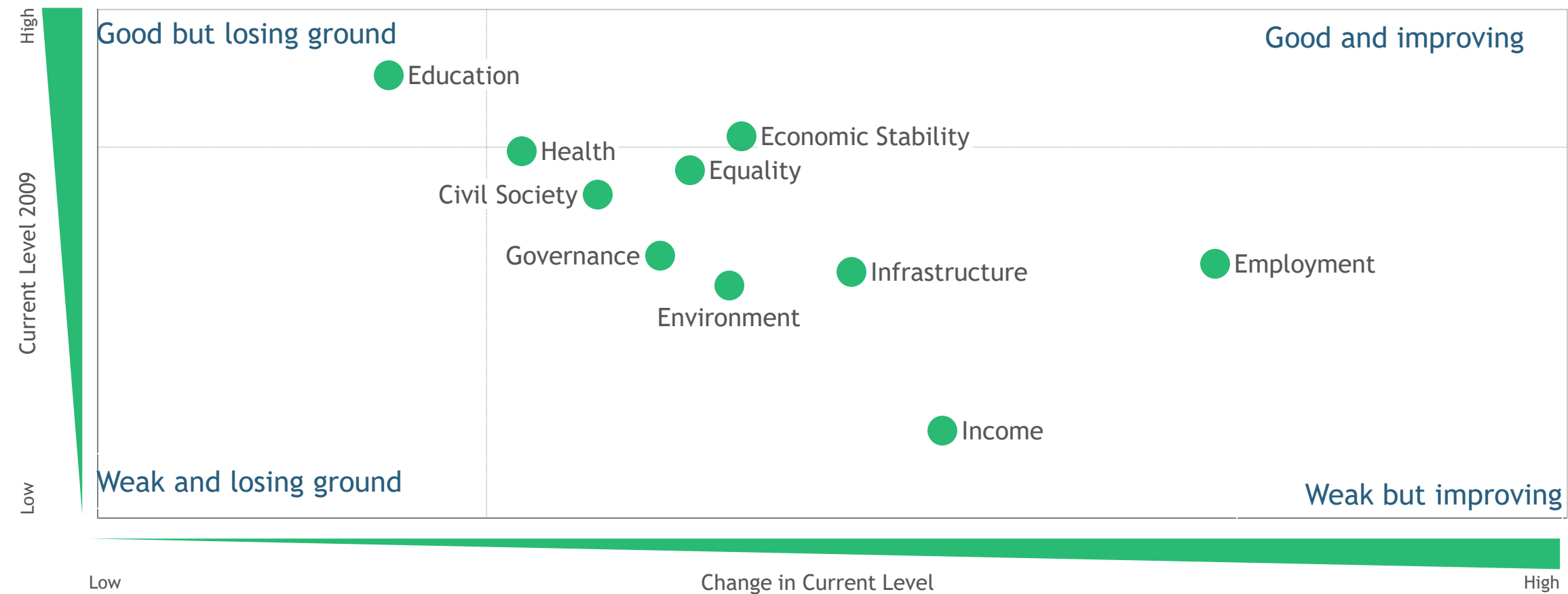
Change in Current level score (2009-2018)



Evolution of Poland's rank across the dimensions of well-being



Compared to those with a similar starting level, Poland is improving and catching up in most dimensions, but is losing ground in education

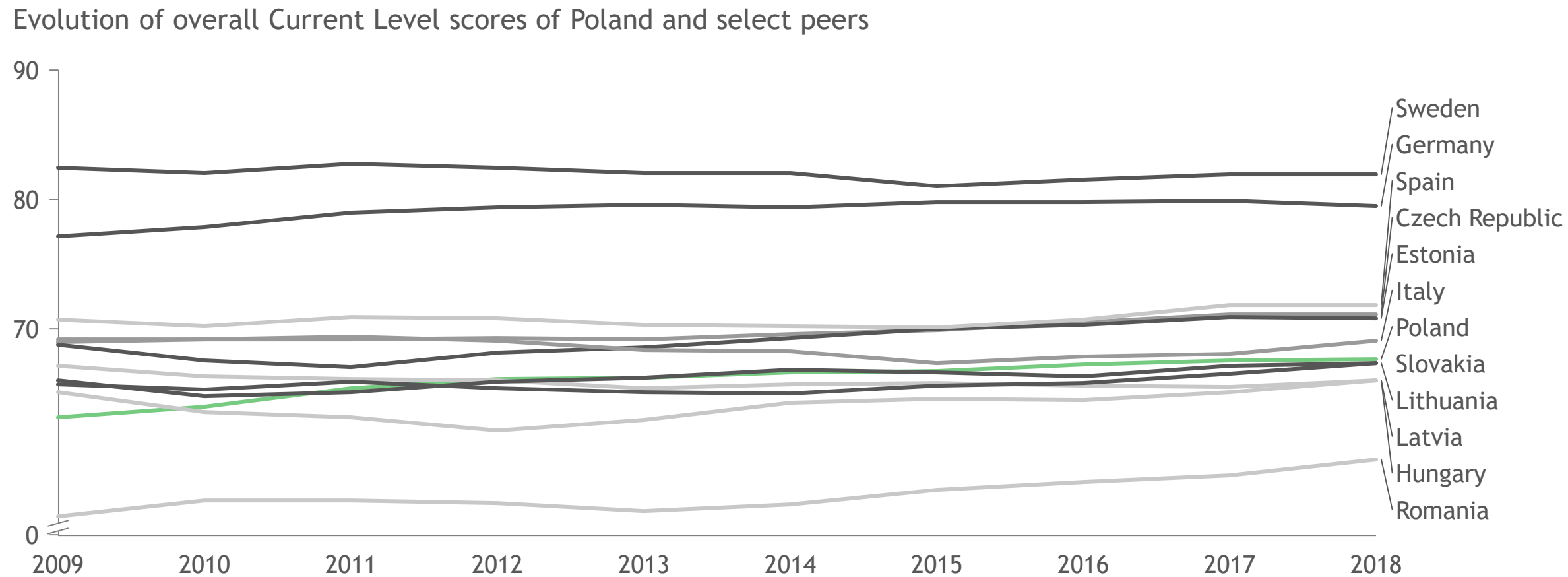


Note: Similar starting level includes countries in top 30% of SEDA 2009
Source: BCG analysis; SEDA scores



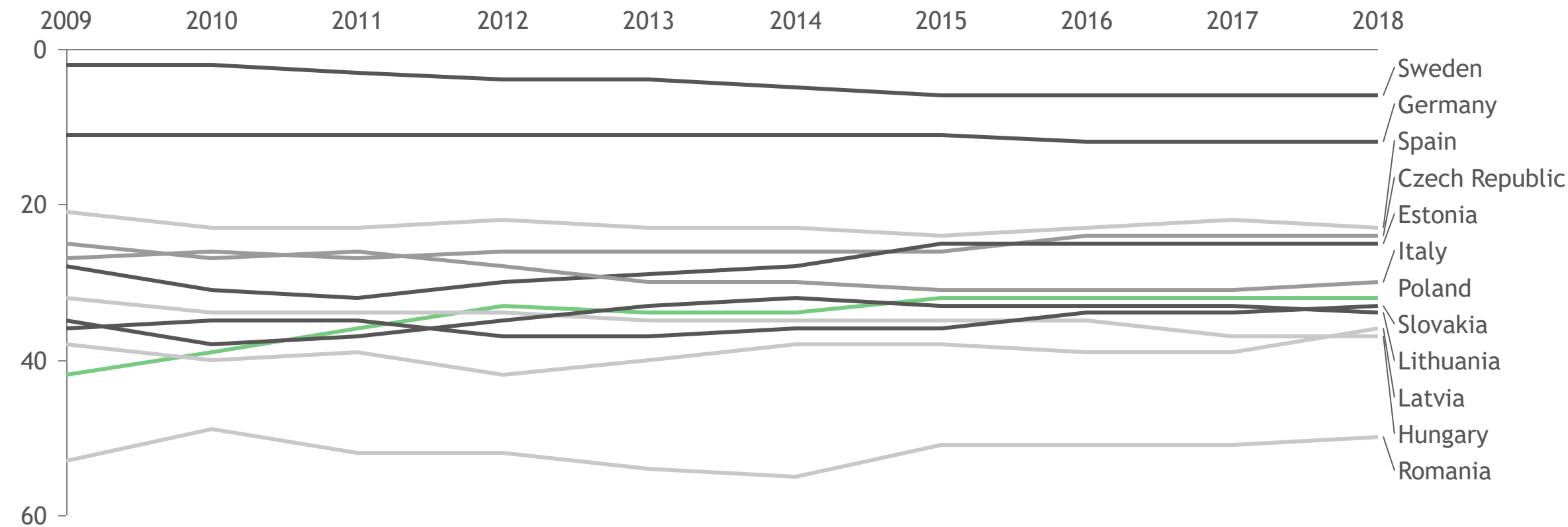
10 years overview of Poland vs. Select EU Peers

Evolution of overall Current Level scores of Poland and its select EU peers



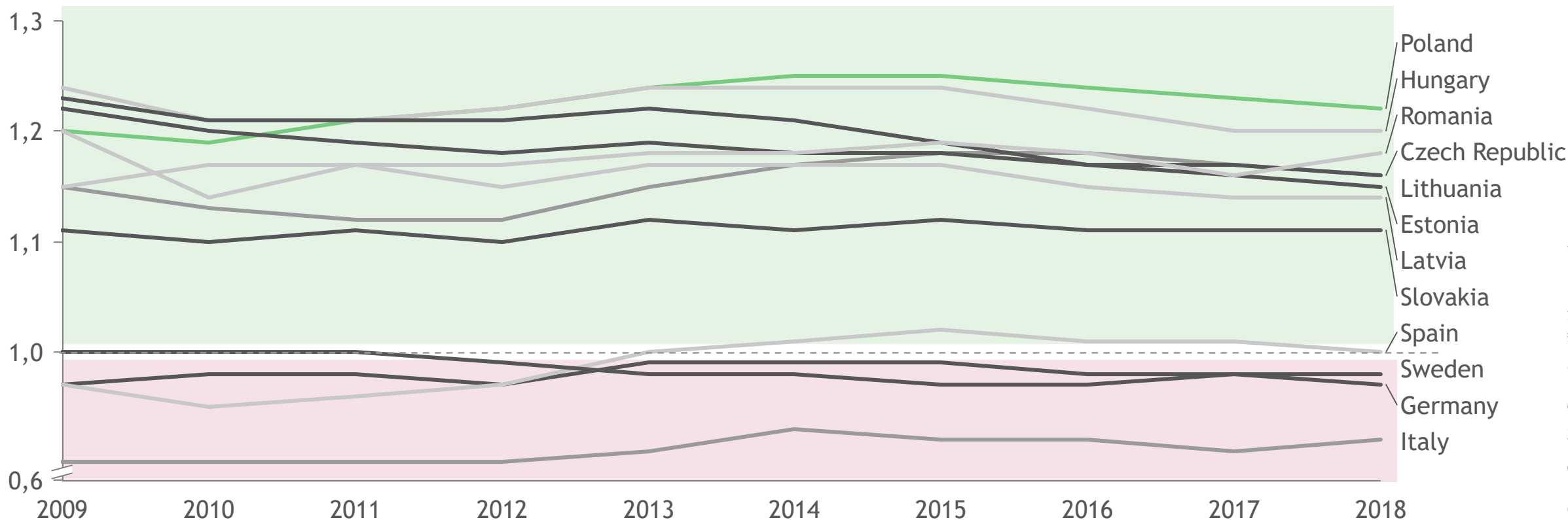
Evolution of overall rank of Poland and its select EU peers

Evolution of overall rank of Poland and select peers



Poland is a top performer when it comes to converting wealth into wellbeing amongst its select EU peers

Evolution of Wealth to Well-being coefficient of Poland and select peers



1. WWBc measures the difference between the SEDA CL score that a country would be expected to have given its per capita income and the global average (coefficient = 1.0) relationship between income and CL score
Source: SEDA results 2018



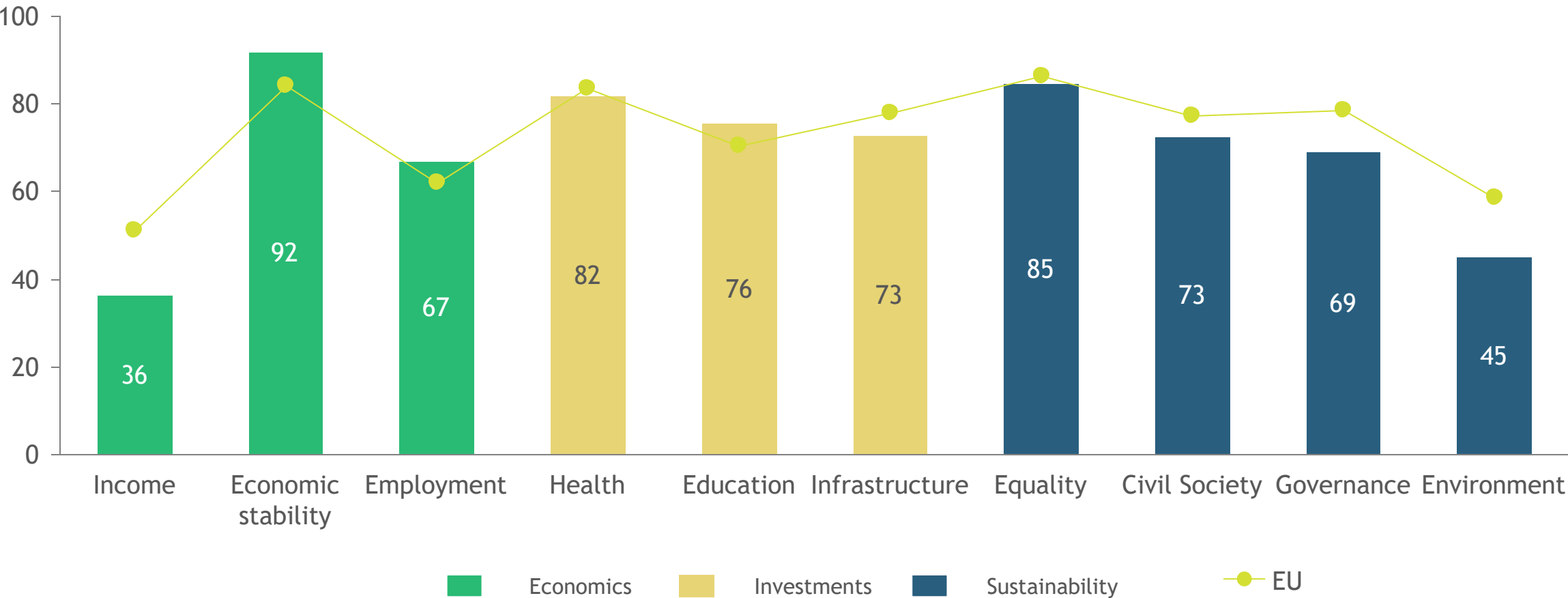
10 years view of Poland vs. EU

Poland performs better than the EU in dimensions of economic stability, employment and education, but lags behind in other dimensions

Current Level SEDA scores by dimensions

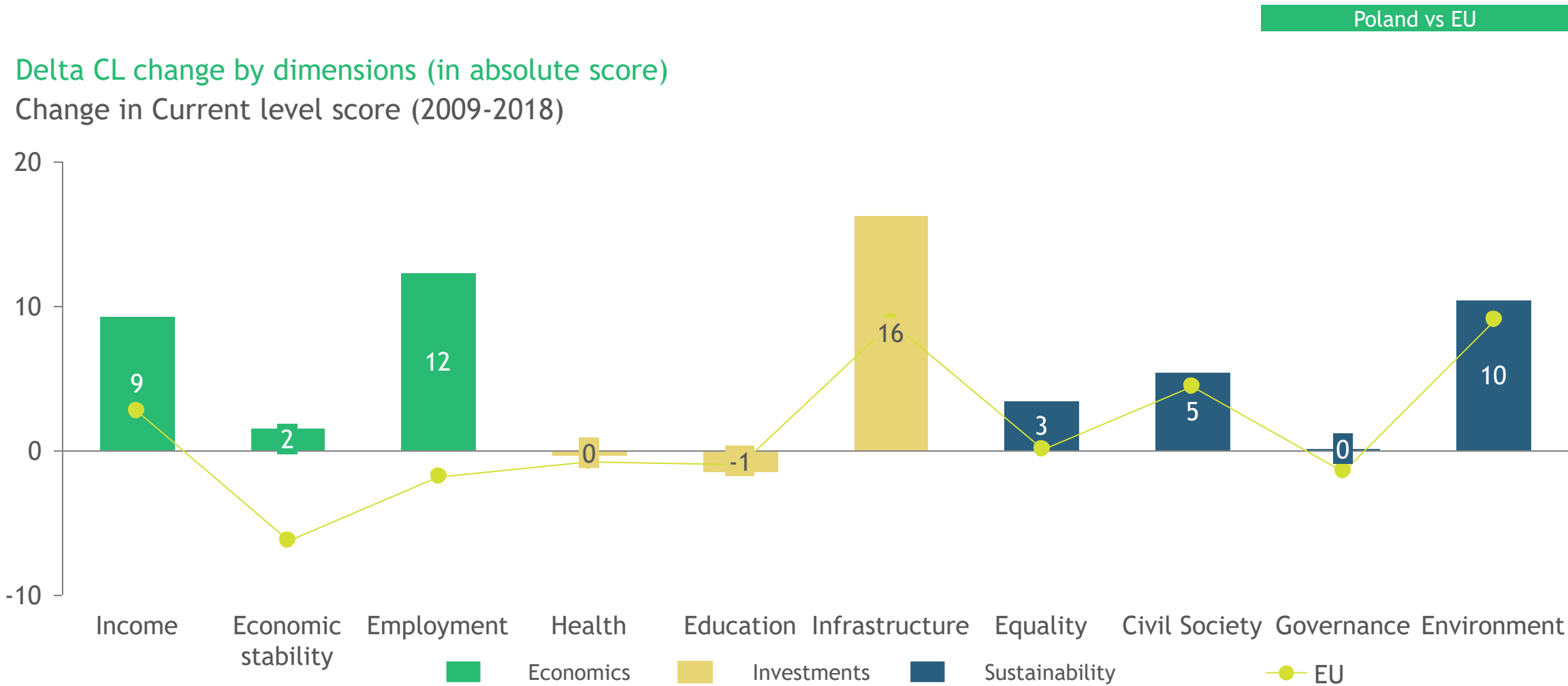
Poland vs EU

2018 Current Level



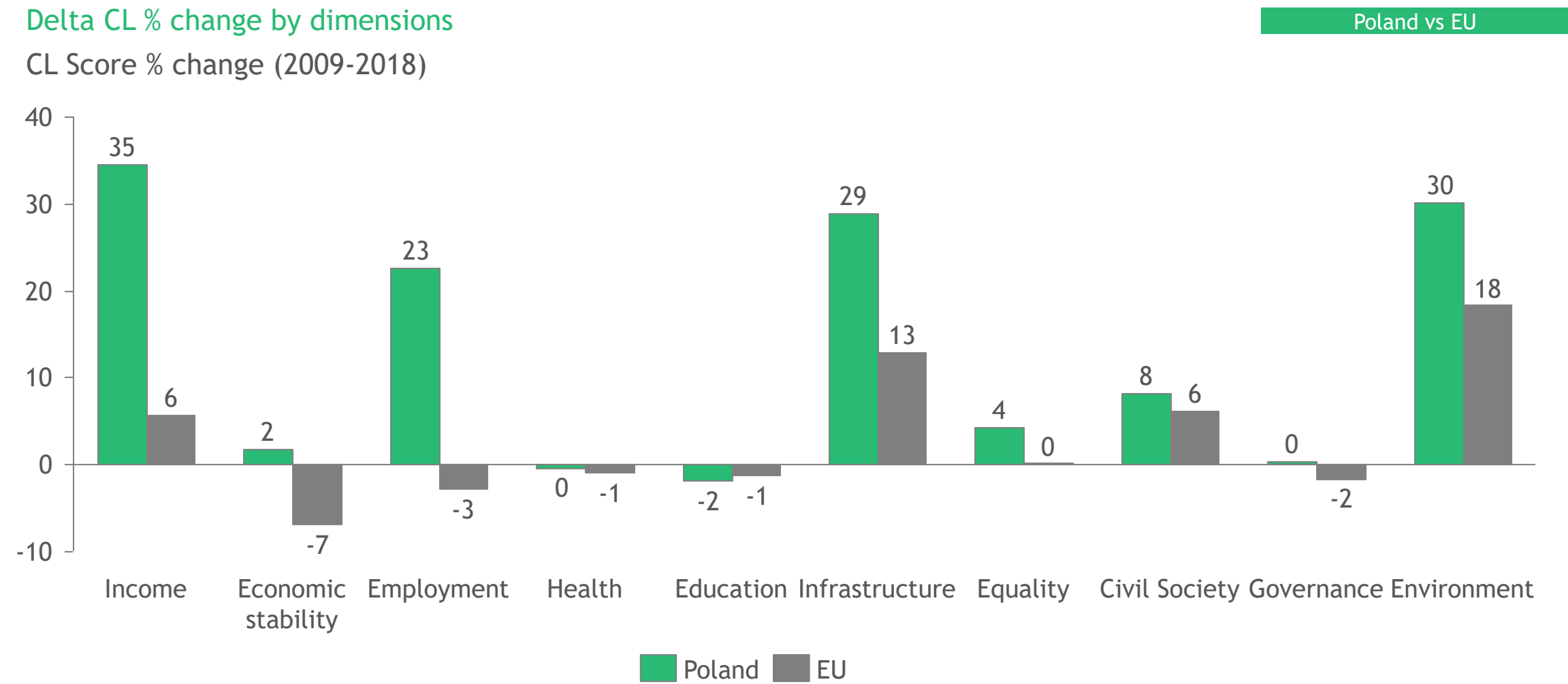
Source: SEDA Model
Used average score for EU

Compared to its EU peers, Poland is making stronger progress across most dimensions, particularly employment



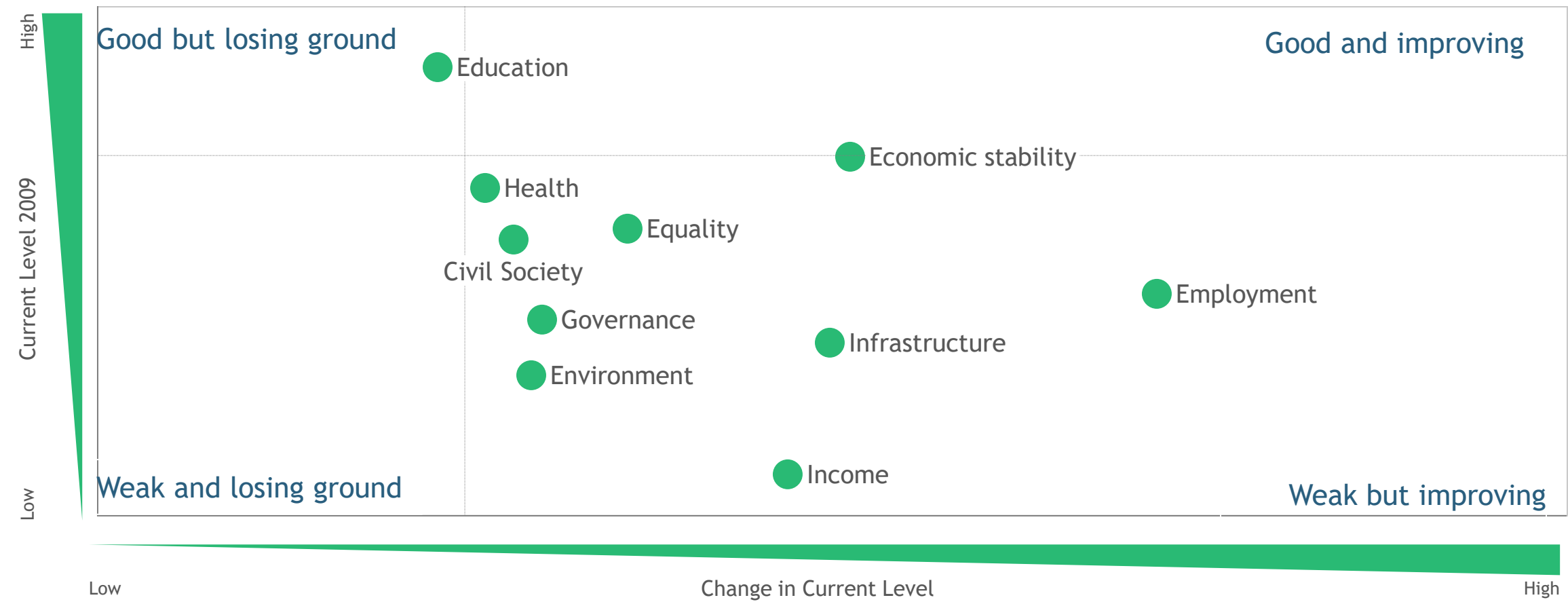
Source: SEDa Model
Used average score for EU

In percentage change terms, Poland is making considerably stronger progress in income and employment, but is slightly lagging in education progress



Source: SEDA Model
Used average score for EU

Compared to the rest of the EU, Poland is improving in most dimensions, but is slightly losing ground in education



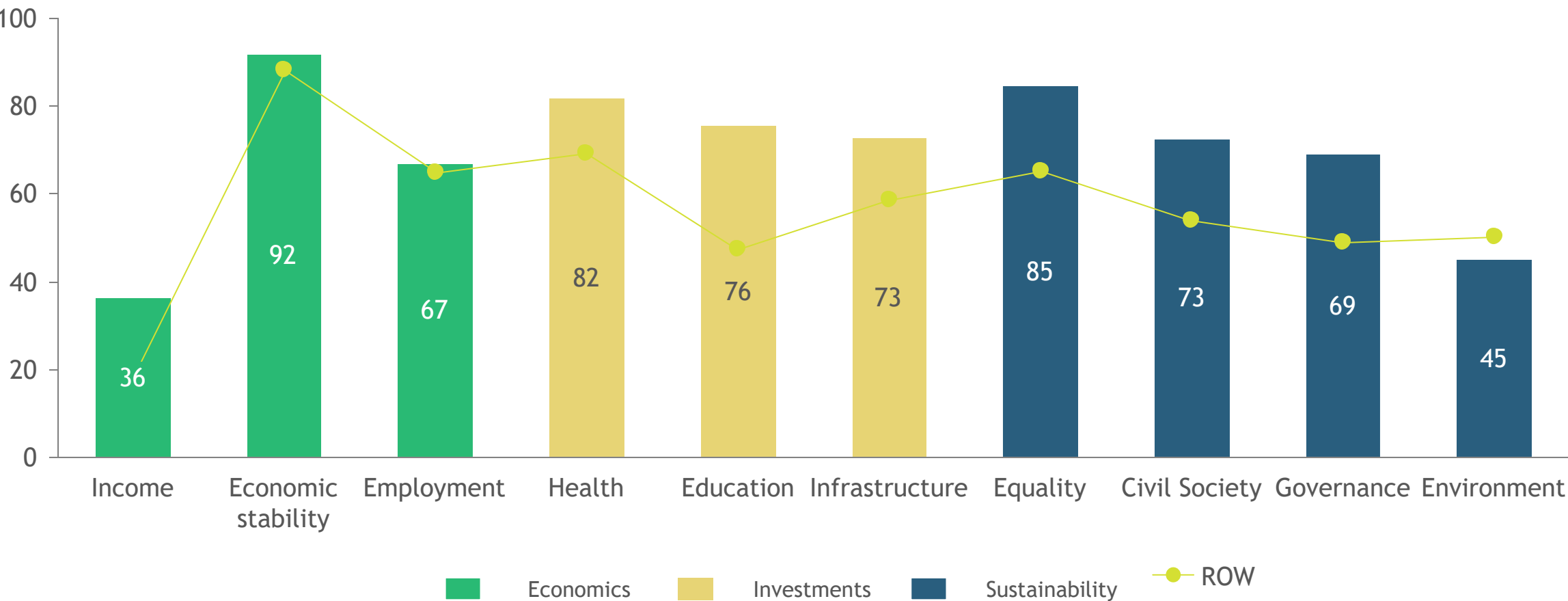


10 years view of Poland vs ROW

Poland performs better than ROW in all dimensions, except environment

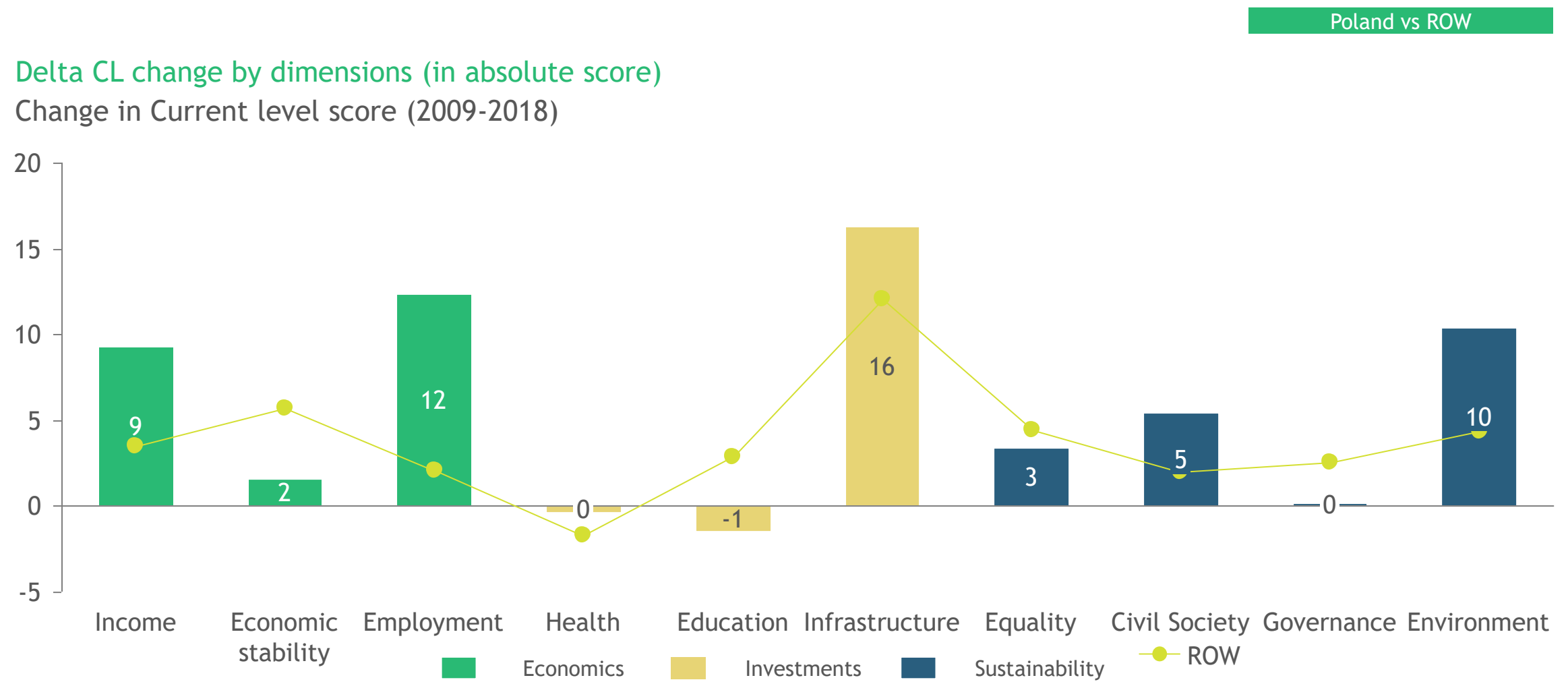
Current Level SEDA scores by dimensions

2018 Current Level



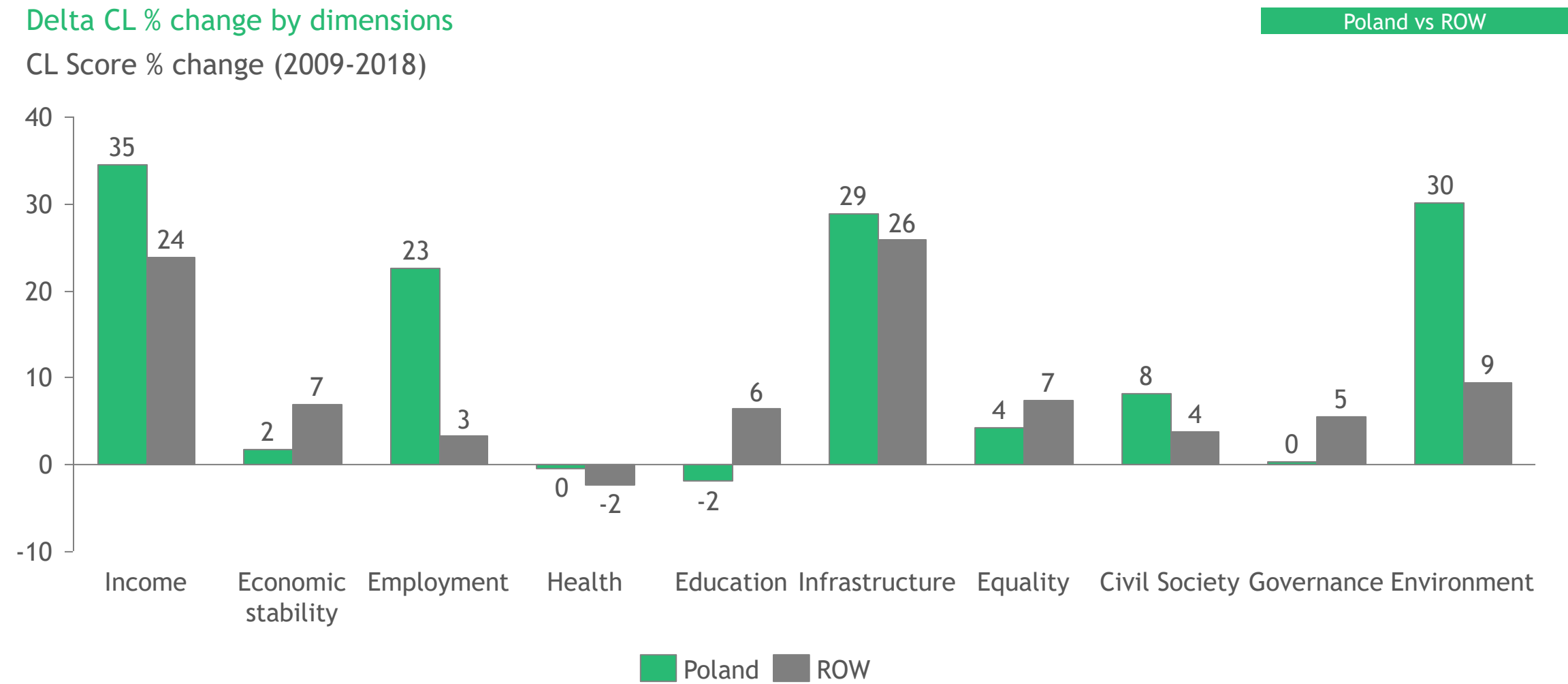
Source: SEDA Model
Used median score for ROW

Compared to the ROW, Poland is making stronger progress in several dimensions, most notably in income, employment, infra, civil society and environment



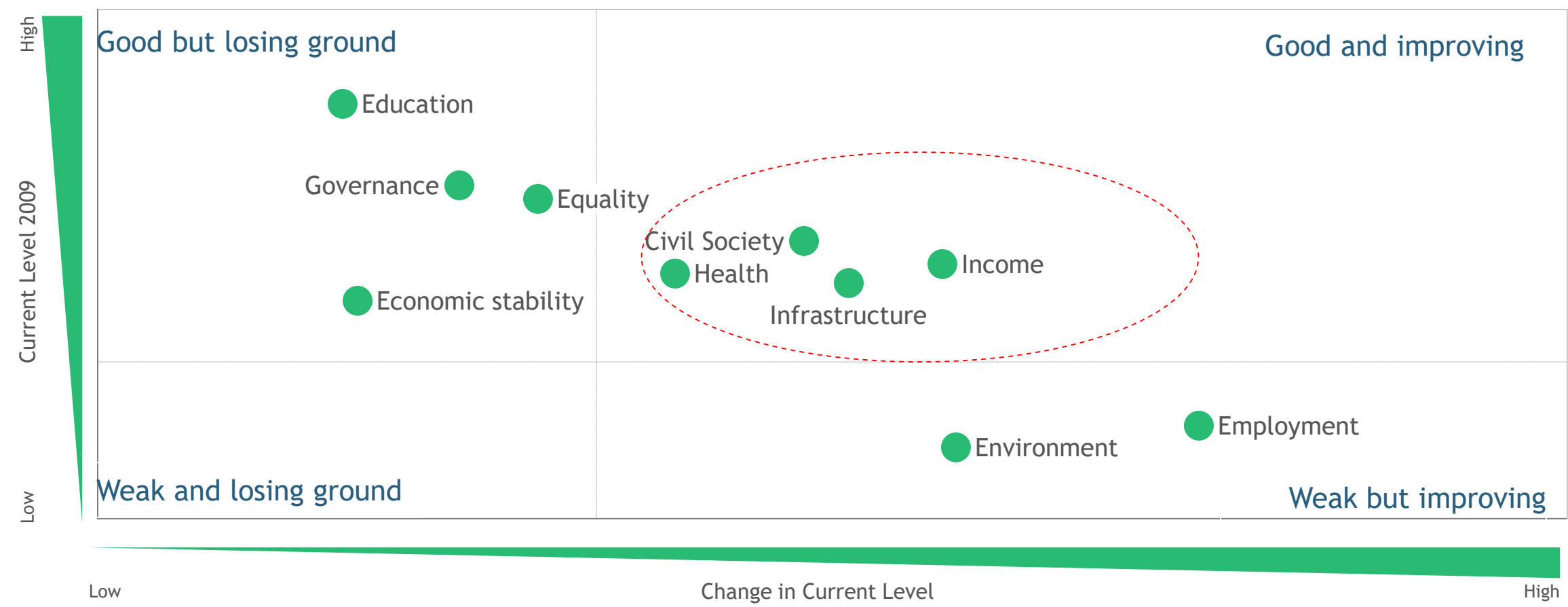
Source: SEDA Model
Used median score for ROW

In percentage change terms, Poland is making considerably stronger progress in employment, but lagging in econ stability, education and governance progress



Source: SEDA Model
Used median score for ROW

Compared to ROW, Poland is pushing ahead in income, infrastructure, civil society and health



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A close-up photograph of a lit sparkler against a dark background. The sparkler is positioned on the right side of the frame, with numerous bright, golden-yellow sparks radiating outwards in all directions. The sparks vary in length and intensity, creating a dynamic and celebratory visual effect. The background is a deep, dark blue or black, which makes the bright sparks stand out prominently.

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List of indicator Values for selected country

Dimension	Indicator	2018	2009
Income	GDP per capita, PPP (current international \$)	27,811	19,266
Economic Stability	Inflation, average consumer prices (percentage change)	1.91	3.45
Economic Stability	Inflation volatility (sdev)	1.90	2.58
Economic Stability	GDP growth volatility (sdev)	0.01	0.01
Employment	Unemployment, total (% of total labor force)	5.10	8.20
Employment	Employment rate, population aged 15-64 (%)	65.68	60.15
Equality	GINI index (1 to 100)	32.10	33.60
Civil Society	Level of civic activism (0-1)	0.55	0.54
Civil Society	Interpersonal safety and trust index (0-1)	0.50	0.48
Civil Society	Intergroup cohesion measure (0-1)	0.75	0.62
Civil Society	Level of gender equality (0-1)	0.89	0.77
Governance	Corruption and rule of law indicator (0-100)	0.71	0.54
Governance	Political Stability and Absence of Violence/Terrorism (-2.5 to 2.5)	0.51	0.94
Governance	Voice, accountability indicator (0-100)	0.84	1.03
Governance	Property Rights Index (0-100)	61.00	50.00
Education	School enrollment, tertiary (% gross)	68.11	70.80
Education	Years of schooling primary to tertiary (Years)	16.14	15.13
Education	Teacher-pupil ratio, primary	0.10	0.10
Education	Average of math and science score	1,005.90	1,002.87
Health	Life expectancy at birth, total (Years)	78.20	75.69

List of indicator Values for selected country

Health	Mortality rate, under age 5 (per 1,000 live births)	4.70	6.30
Health	Prevalence of HIV, total (% of population ages 15-49)	0.41	0.32
Health	Incidence of tuberculosis (per 100,000 people)	19.00	23.00
Health	Population either undernourished or obese (%)	25.60	17.97
Health	Immunization (% measles and DPT of children)	97.00	98.50
Health	Physician density (per 1,000 people)	2.27	2.14
Health	Hospital beds (per 1,000 people)	6.50	6.70
Environment	Air pollution, effects on humans (0-100)	70.7	72.8
Environment	Terrestrial and marine protected areas (% of total territorial area)	29.31	17.54
Environment	Carbon dioxide intensity (kg per kg of oil-equivalent energy use)	3.04	3.16
Environment	% of electricity generation from renewables (excluding hydro source)	12.69	4.17
Infrastructure	Internet users (per 100 people)	73.30	58.97
Infrastructure	Mobile cellular subscriptions (per 100 people)	146.21	117.32
Infrastructure	Quality of roads network (1-7)	4.10	2.06
Infrastructure	Quality of Railroads infrastructure (1-7)	3.60	2.89
Infrastructure	Improved water source (% of population with access)	98.30	97.50
Infrastructure	Improved sanitation facilities (% of population with access)	97.20	93.50
Infrastructure	Quality of Electricity Supply (1-7)	5.50	5.30
Equality	Inequality in education (%)	5.40	7.10
Equality	Inequality in life expectancy (%)	5.20	6.40
Income	GNI per capita, Atlas method (current US\$)	12,680.00	12,540.00