

Sustainability Ranking Developed Countries



ESG



ENVIRONMENT

The emissions of greenhouse gases continue to increase, year after year. Human activities are the root cause of global warming, which is affecting people, ecosystems and livelihoods worldwide. Climate protection and adaptation are pre-requirements for social rest and peaceful stability. Today, States have technological decarbonization innovations and progress at their disposal at a cheaper cost than in the past. Synergies can be high between climate action and economic growth, as a lever for job creation.



EDUCATION / INNOVATION

Education and innovation are success keys for States to ensure their sustainability. For several years now, the PISA tests, taking place every three years in all OECD Members States, have shown that the quality of an education system is not correlated with the amount a State can spend in terms of public budget. The latest 2018 results, disclosed end 2019, still highlight the impact of the socio economic background of students and schools on the results in reading, sciences or mathematics. Finally, this year edition granted a special focus on the students' job expectations and the skills requirements of the labour market in the medium term. **Ensuring the adequate and relevant education** to their students is a key responsibility for States to benefit from the skilled capital management they need to guarantee their future.



POPULATION, HEALTH & WEALTH DISTRIBUTION

A new social "agreement" has emerged in this century. Disruptive and contradictory/opposing trends have evolved as work opportunities have expanded and employment rates – until recently before the pandemic – have risen in a large majority of countries. However, while many social benefits have improved for a large part of the population, several countries have faced **job polarisation and income stagnation** combined with substantial increase in cost of basic needs. The inequality gaps have increased and led to tensions and social instability. Sustainable countries will be those able to leverage the latest gains and progress to create opportunities and economic prosperity for all.



While sustainable and ESG research on corporates from independent third parties is generally readily available, reliable information on countries is harder to come by. The sovereign debt crises have questioned the status of 'risk-free' asset class of government bonds. This has led to the emergence of several analyses of country sustainability.

This in-house developed sustainability ranking is the basis of the eligible investment universe of government bonds issued by OECD Member States. The proprietary research model, which was developed by Degroof Petercam Asset Management (DPAM) in 2007, has the track record and credibility to assess trends and the added value of such analyses.

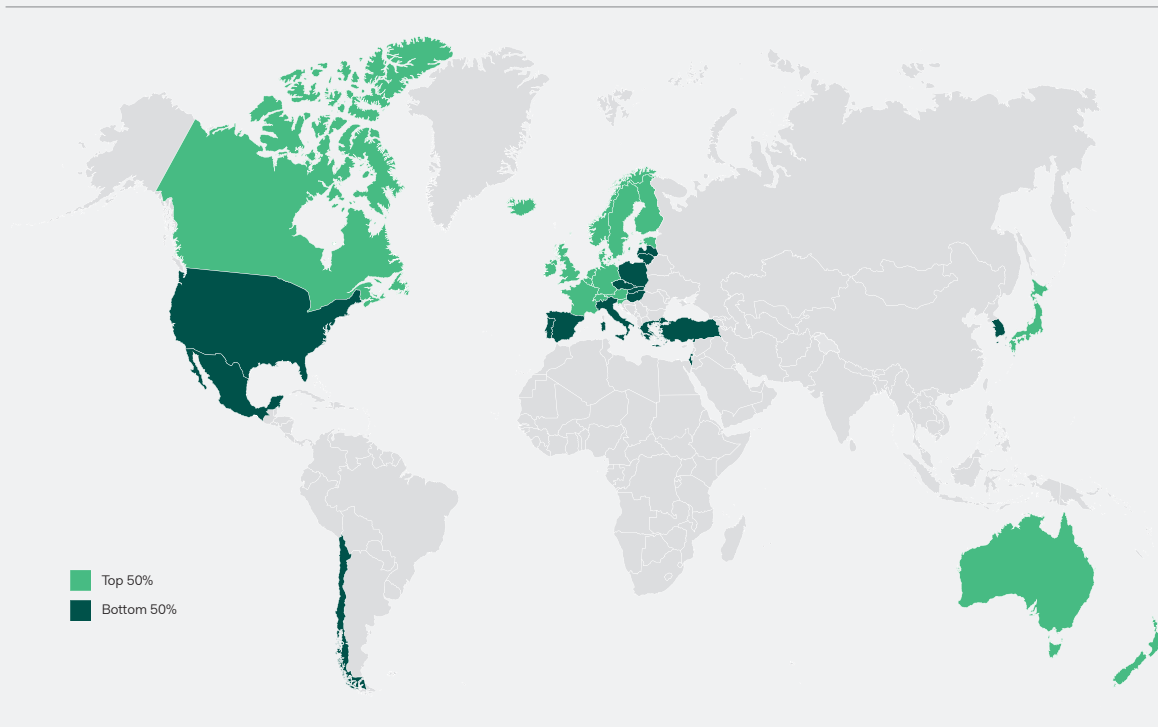
Sustainability ranking – April 2020

The starting universe is composed from the members of the OECD, therefore each new membership is included in the starting universe. The sustainability ranking allows the identification of countries which have fully integrated global challenges in their development of medium-term objectives.

This complements the information gathered from credit ratings, which is traditionally used to assess the short term valuation of sovereign debt.

Integrating long-term perspectives allows to highlight those countries that are expected to outperform others and therefore to be solvent. These perspectives have no direct impact on the current valuation of an investment, but will influence medium and long-term performance.

Developed Markets



Source: DPAM, April 2020

Sustainable country ranking of OECD member states

| Eligible country for investment | H1 20 | | H2 19 | |
|---------------------------------|-------|-------|-------|-------|
| | # | score | # | score |
| Sweden | 1 | 70 | 4 | 69 |
| Norway | 2 | 70 | 1 | 71 |
| Denmark | 3 | 69 | 3 | 70 |
| Switzerland | 4 | 68 | 2 | 71 |
| Finland | 5 | 67 | 7 | 67 |
| Iceland | 6 | 66 | 5 | 69 |
| Netherlands | 7 | 64 | 8 | 65 |
| Canada | 8 | 64 | 15 | 59 |
| United Kingdom | 9 | 64 | 10 | 62 |
| Austria | 10 | 63 | 12 | 61 |
| New Zealand | 11 | 63 | 9 | 64 |
| Australia | 12 | 62 | 17 | 58 |
| Germany | 13 | 61 | 6 | 67 |
| Ireland | 14 | 60 | 11 | 62 |
| Belgium | 15 | 60 | 21 | 57 |
| Estonia | 16 | 60 | 16 | 58 |
| Luxembourg | 17 | 59 | 18 | 63 |
| Japan | 18 | 59 | 19 | 63 |
| France | 19 | 58 | 22 | 55 |
| Slovenia | 20 | 58 | 13 | 60 |

| Non-eligible country for investment | H1 20 | | H2 19 | |
|-------------------------------------|-------|-------|-------|-------|
| | # | score | # | score |
| Czech Republic | 21 | 57 | 18 | 58 |
| Portugal | 22 | 56 | 23 | 54 |
| United States | 23 | 56 | 30 | 50 |
| Spain | 24 | 54 | 29 | 52 |
| Slovakia | 25 | 53 | 27 | 53 |
| South Korea | 26 | 53 | 19 | 57 |
| Poland | 27 | 53 | 25 | 53 |
| Lithuania | 28 | 51 | 26 | 53 |
| Latvia | 29 | 51 | 28 | 52 |
| Italy | 30 | 50 | 31 | 49 |
| Israel | 31 | 49 | 24 | 54 |
| Hungary | 32 | 48 | 32 | 49 |
| Chile | 33 | 45 | 33 | 48 |
| Greece | 34 | 41 | 34 | 42 |
| Turkey | 35 | 36 | 35 | 38 |
| Mexico | 36 | 35 | 36 | 37 |

Source: DPAM, April 2020

Please keep in mind that for year-on-year comparisons, sustainability ranks could be influenced by various factors, such as changes in metrics and data availability.

What is sustainability?

Sustainable development meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Sustainability at country level differs from that of a corporation. A sustainable **country** is committed to fully ensuring the freedom of its citizens and invests in their personal development and welfare. It is respectful towards the environment and is reliable in terms of international responsibilities and commitments. It ensures its future and invests in next generations (education & innovation).

How to measure sustainability of a country?

There are three main approaches to measure the sustainability of a country, namely

- 01 The **legal approach**, with the emphasis on treaties and offenses related to government actions. It should be noted however that agreement on treaties are not always fully binding and there is often no penalty where violations occur.
- 02 The extreme **stakeholder approach**. The inconvenience of this approach is the importance of the number of stakeholders and parameters to be considered, giving rise to the possibility of dilution and irrelevancy of the indicators.
- 03 The **exclusion approach**, which consists of exclusions on the basis of controversial activities, examples being whale hunting and deforestation.

These approaches raise the issue of the moral threshold level, and subjectivity is likely to make it questionable.

The lack of information and an associated model encouraged DPAM to develop an in-house research model in 2007. Given the subjective character of the issue, key principles were defined from the beginning:

01

Existence of an **advisory board**, consisting of external specialists providing input to the model.

02

Assessment of the commitment of the country to its **sustainable development**: variables on which the country can have influence through decisions.

03

Comparability and objectivity: criteria are numeric data, available from reliable sources and comparable for all countries.

The Fixed Income Sustainability Advisory Board (FISAB) ensures the objectivity of the model

The role of the FISAB is:

- 1 To select the sustainable criteria which fulfil the preliminary requirements, and are the most relevant in the framework of sustainability assessment of the OECD universe.
- 2 To determine the weights attributed to each indicator.
- 3 To critically and accurately review the model and the ranking to ensure continuous improvement.
- 4 To validate the list of eligible countries.

The FISAB consists of seven voting members with a majority of external experts. The complementary background of the members guarantees a high level of expertise and knowledge of the issue in constructing the most relevant model. The objective of the board is to raise awareness on ESG issues among the portfolio management teams.

EXTERNAL MEMBERS

Bart Haeck
Journalist at
Mediafin

François Gemenne
Professor at Sciences Po
(Paris) & ULB (Brussels)

Jan Schaerlaekens
Deputy at
Brussels Parliament

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Assistant Professor at
ULB-IGEAT (Brussels)



INTERNAL MEMBERS

Ophélie Mortier
RI Strategist
DPAM

Ives Hup
Country Head France
DPAM

Celine Boulenger
Economist
Degroof Petercam

Selective and objective criteria to assess the sustainability of countries

The sustainable overlay is characterised by the criteria which governments can utilise to influence their policies (government, authorities, law). Thus, it avoids data linked to the geography or population density of the country. The model is quantitative and tracks the current performance of a country, with comparable data. Only a limited number of treaties are considered as they do not guarantee genuine commitment.

Norms-screening: violation of International Treaties

The Belgian department of foreign affairs reminds investors in Israel that the EU and its member states consider the establishment of Israeli settlements in the Israeli-occupied territories illegal under international law, an obstacle for peace and a possible threat for a two state solution to the Israeli-Palestinian conflict.

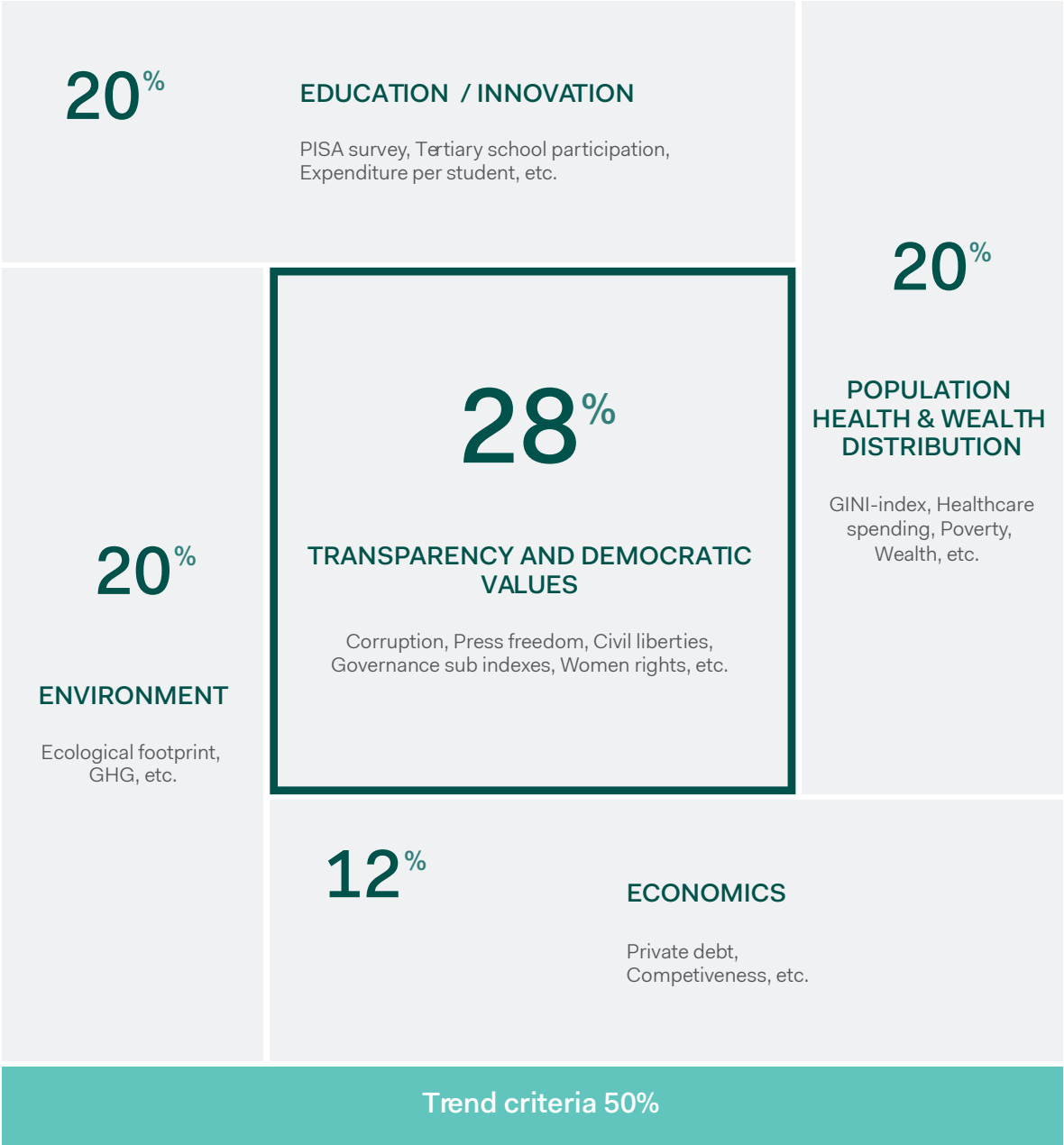
The Belgian department of foreign affairs also warns EU citizens and companies to be aware of the fact that economic or financial activities related to the settlements can cause reputation damage. The FISAB is aware of the fact that Israel claims that there is no violation of international law because the Fourth Geneva convention does not apply to the territories occupied in the 1967 six-day war. However, the United Nations Security Council, the United Nations General Assembly, the International Court of Justice, the International Committee of the Red Cross and the High Contracting Parties to the Convention have all affirmed that the convention does apply. The sustainable strategies the FISAB oversees operate under European law. It therefore follows the official Belgian and EU view that there is a violation of international law. Israel is therefore excluded from the eligible universe.

Best-in-class combined with best-effort approach

The sustainability analysis focuses on five main key drivers: Transparency & Democratic Values, Environment, Education & Innovation, Healthcare & Wealth Distribution and Economics. Each criterion gets an assigned weight and each country receives a score ranging from 0 (worst) to 100 (best) based on its relative position compared to other countries (comparison to the difference between the maximum and the minimum). For binary criterion (death penalty or the signing of the Ottawa Convention, for example) a score of either 0 or 100 will apply. The final and overall score of a country is equal to the weighted average of the scores on each criterion, using the weights which are decided by the Fixed Income Sustainability Advisory Board. The selection process results in a ranking of the 36 countries. The final scoring is rounded up to avoid an excessively unstable universe as decimals are statistically irrelevant.

Progress and improvement are taken into consideration through a **trend indicator**, which provides insights into the robustness of a country's commitment to sustainability. The trend is calculated over the previous three years and a 50% weight of the scoring is allocated to it. In total, the model has around 60 indicators.

The approach is dynamic as the selected criteria are reviewed twice per year, with the intention of selecting the most appropriate and relevant criteria for each domain. An indicator may be replaced and adapted, or omitted. New indicators can enter the model and the allocation of the weightings may also vary.

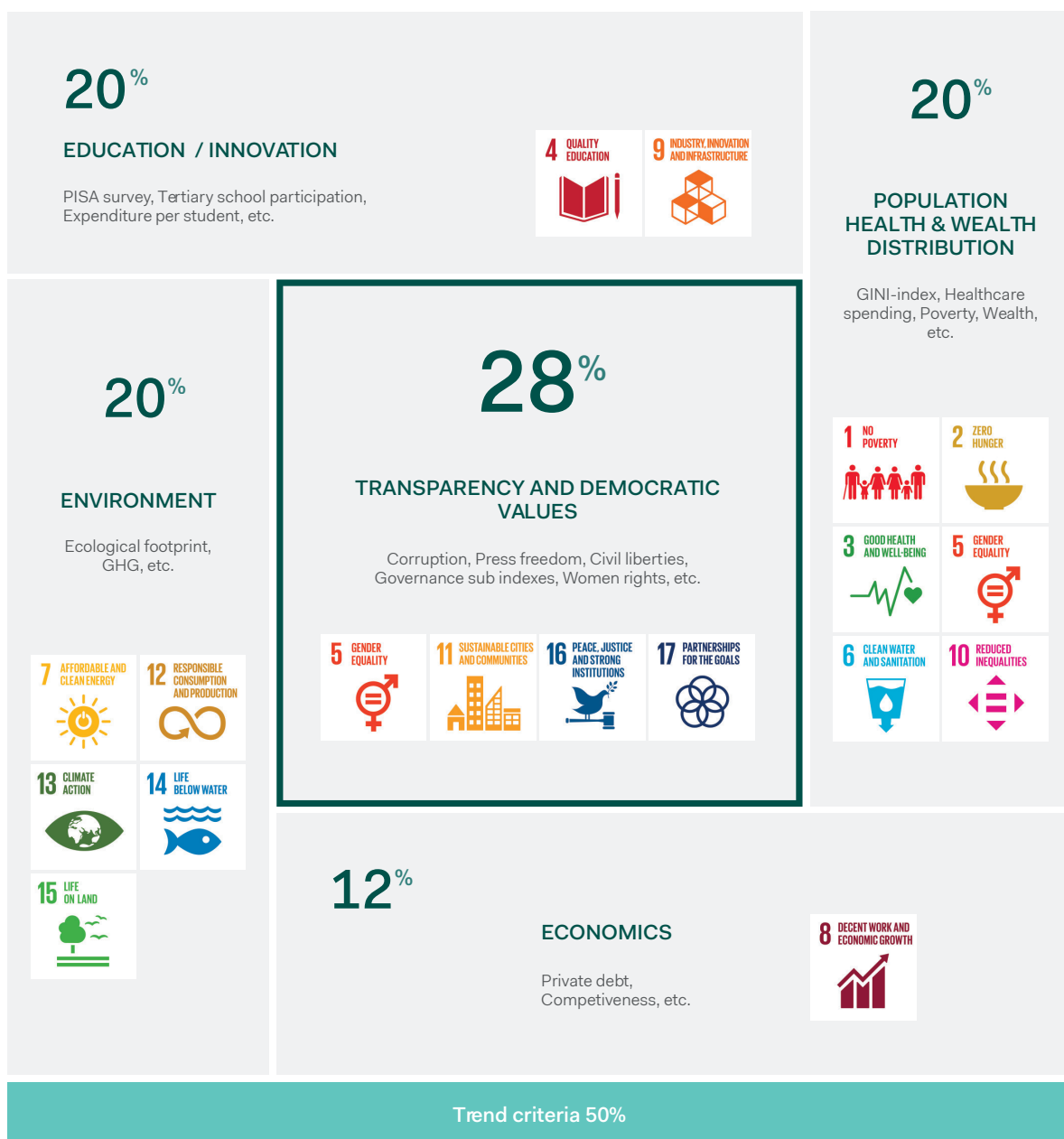


The model predates the Sustainable Development Goals

The 17 Sustainable Development Goals (SDG's), in the wake of the Millennium Development Goals, which were launched by the United Nations between 2000 and 2015, aim to advocate sustainable development on the economic, social and environmental domain. They reaffirm the human rights and the willingness to eradicate poverty, hunger and inequality by the end 2030.

The 17 social, environmental and economic objectives have been adopted by nearly 200 countries. It is a unique opportunity to channel more investments towards major environmental and social challenges.

DPAM is proud of its pioneer sustainability model that predates the SDG's. SDG's are so much more than a mere different framework to communicate on our ESG and sustainable investment philosophy. We review the country model taking into account the SDG's to increase its relevancy and to better integrate these objectives in our investment decisions.



Sources are internationally recognized

The model aims for the highest possible level of objectivity. Accordingly, statistical data to support the analysis of the country's sustainability are mainly collected from government databases and international governmental agencies such as the International Energy Agency, World Bank, International Monetary Fund, United Nations Development Programme and US Central Intelligence Agency. Data are complemented by information drawn from leading non-governmental organisations such as Freedom House, Transparency International and World Economic Forum.

Keeping an holistic view

Our sustainability country model relies on five dimensions namely (1) transparency and democratic values, (2) environment, (3) population, health and wealth distribution, (4) education and innovation and (5) economics. This does not hide the high interconnectivity between these five closely correlated dimensions.

Over the last years, we witnessed several disruptions and even contradictions regarding governance, social concern or environmental issues. This is why sustainability analysis at country level has been essential in an integrated model.

In terms of governance, the strength of the governing institutions is a key indicator to ensure the reliability and stability of the adopted policies and programs. These enable countries in facing internal and/or external challenges and obstacles.

The lack of credible and meaningful policies could impact the social stability of a country. Sound corporate governance is indisputable. At the same time, social instability weighs on long-term growth potential and economic development of a country.

The examples of citizens, through NGO's, suing the States for lack of responsibility in their environmental ambition and emissions targets – is testament to the strong relationship between governance and environment.

The ambitious environmental policy adopted by China also reveals the link between environment and social stability. Facing a growing middle class, which opposes the constant smog and its dramatic health consequences, Chinese leadership has no other choice than taking the required measures to ensure social stability in a healthy living environment.

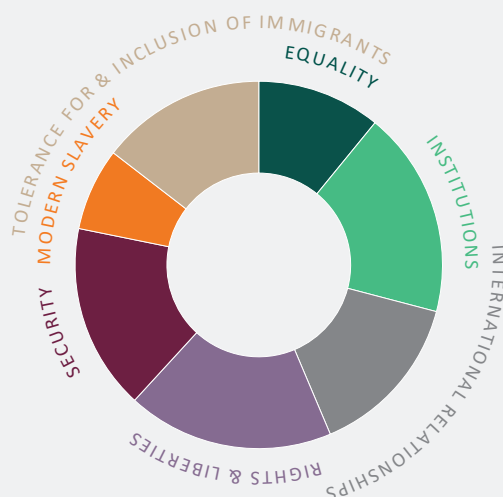
Sustainability themes

Within each driver, the FISAB has assessed the different sustainability themes measured by the indicators and their respective importance. Following the SDG's, the model is constantly reviewed to ensure the right balance between the sustainability themes.



TRANSPARENCY AND DEMOCRATIC VALUES

Important driver of stability and good governance is the balance between male and female representation in the governing bodies. Gender equality should be visible in all aspects of life. First of all, **same equal chance on the labour market**. While academic research and surveys demonstrate the added value of having women in professional management positions, the gender salary gap has not really progressed over the last years. The access to the labour market starts with an equal access and chances to a high quality education system. The equality of chances refer as well to health. And finally, it is the whole **question of empowerment** which is crucial to ensure the sustainability of an organization. The Gender Inequality Index, introduced in 2010, tends to assess this global issue by measuring the loss of success due to gender inequality in all these three dimensions (labour market, health and empowerment). The latest report has shown the slowdown in registered progress and at this pace, 202 years will be needed to close the gender gap in economic opportunities. Countries, which rank high in our proprietary model, have integrated since long time **the importance of equal rights and gender diversity**.





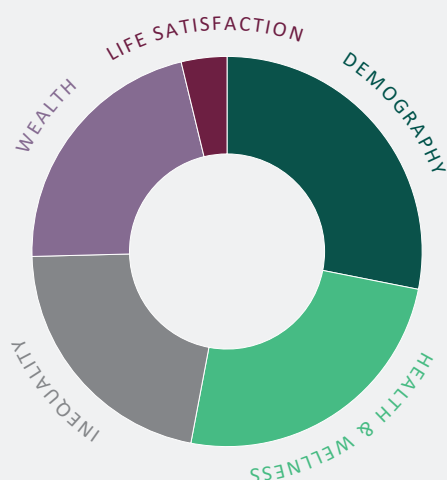
POPULATION, HEALTH & WEALTH DISTRIBUTION

A new social “agreement” has emerged in this century. Disruptive and contradictory trends have evolved as work opportunities have expanded and employment rates – until recently before the pandemic – have risen in a large majority of countries. However, while many social benefits have improved for a large part of the population, several countries have faced job polarisation and income stagnation. Job polarisation has been exacerbated by the work shift from manufacturing to service-sector jobs as well as shift from low to high skill, as a result of automation and globalization. Digital platforms, growing automation, etc. have led to labour-costs arbitrage and higher required flexibility from the labour markets at, sometimes, the detriment of employment protection. Another effect from this flexibility is the wage negotiation mechanisms as workers covered by collective agreements might have declined. This could partially explained the wage stagnation perceived in a large majority of the OECD countries and usually largely below the average annual GDP growth observed in the same members states. Furthermore, the median income increase has been inferior to the average wage growth rate and testifies to the inequality in salary increase among income groups.

This **wage stagnation** combined with substantial **increase in cost of basic necessities**- as housing first, but also healthcare and education- **has eroded welfare, increased inequality gaps and exacerbated relative poverty.**

Another feature of this new social “agreement” is the combination of **longer life expectancy with declining birth rates.** Countries have started to increase the statutory retirement age and even to link this explicitly with the life expectancy like in Denmark, Finland or Sweden. This increasing age dependency ratio is also putting pressure on the fiscal sustainability of governments and the net pension replacement rate workers can expect to receive. These will have to be compensated with private savings while the risk of indebtedness of households is increasing.

All this is increasing tensions and social instability, particularly in a context where the institutions' intervention has been continuously reduced. Sustainable countries will be those able to leverage the latest technological gains and social progress to create exciting opportunities and inclusive economic prosperity for all.

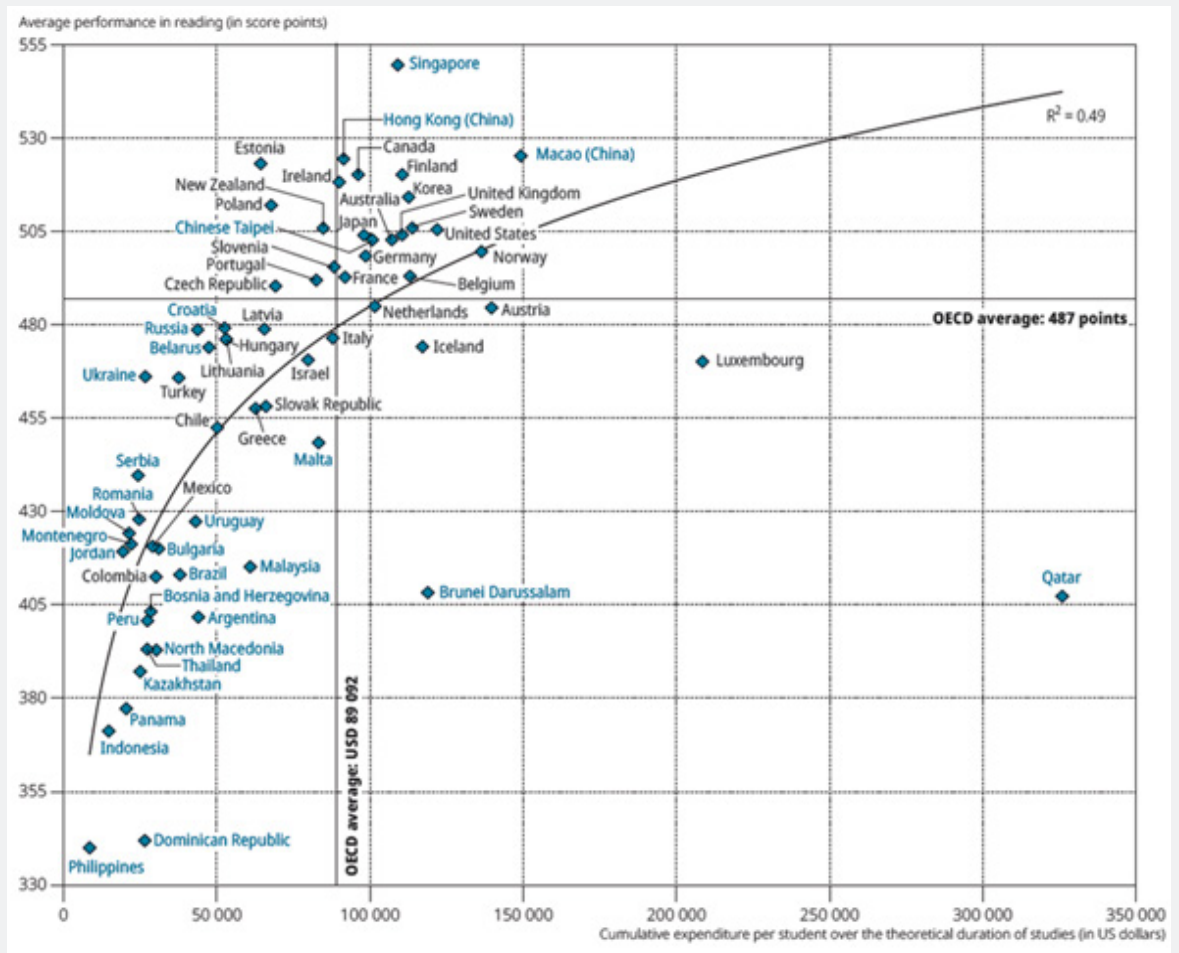




EDUCATION/INNOVATION

Education and innovation are success keys for States to ensure their sustainability. For several years now, the PISA tests, taking place every three years in all OECD Members States, have shown that the **quality of an education system** is not correlated with the amount a State can spend in terms of public budget.

Reading performance and spending on education



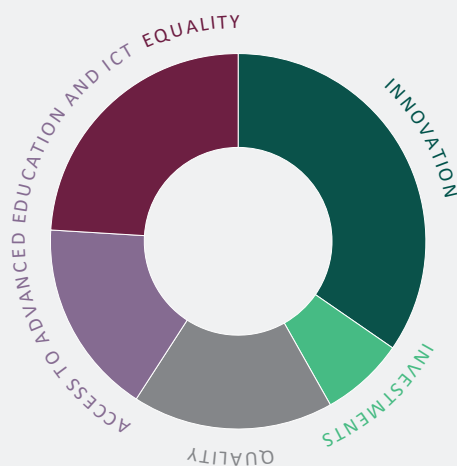
Source: OECD, PISA 2018 Database, Tables 1B 1.4 and figure 1.4.4

As for example, Estonia increased its score despite no high expenses in education as well as Portugal, substantially impacted by 2008 crisis.

The latest results of 2018, disclosed end 2019, still highlight **the impact of the socio economic background** of students and schools on the results in reading, sciences or mathematics. In other words, the zip codes remain important success indicators and progress still has to be provided here notably in countries as Belgium, France, Germany or Spain.

Access to education has improved. Innovation and online courses have also **democratized access to knowledge**. Nevertheless, **the cost of education** have generally increased in a large majority of countries (university fee subsidies cut, etc.). In addition, **quality is not improving** as shown by the decline in the PISA scores over the last 10 years (2% decline on average). The latest PISA tests were focused on reading skills, especially on the ability to distinguish facts from opinions. Only one out of 10 students demonstrated this ability and the progress curve over the last decade is rather flat.

Finally, this year edition granted a special focus on **the students' job expectations and the skills requirements of the labour market** in the medium term. Ensuring the adequate and relevant education to their students is a key responsibility for States to benefit from the skilled capital management they need to guarantee their future. New jobs and work types have emerged alongside technological innovation and IT disruption such as ride-hailing apps, big data translators or social media influencers. Automation can pose a serious risk for several jobs, estimated between 40 and 150 million workers in advanced economies¹. It is key for countries that jobs expectations and needs for the future labour markets are aligned with the educational path. And surprisingly or not, this is rarely the case; except likely for Canada, Chile, United States or Ukraine. The education system, as existing in several countries of the OECD, does not anticipate enough the future needs of the labour market in disruptive transition.



¹ « jobs lost, jobs gained ; workforce transitions in a time of disruption”, McKinsey Global Institute, January 2018

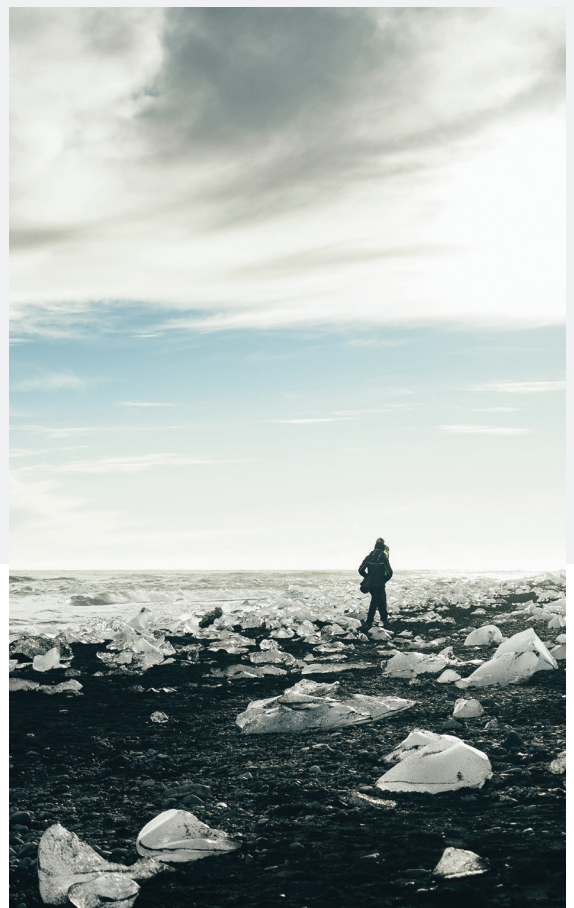
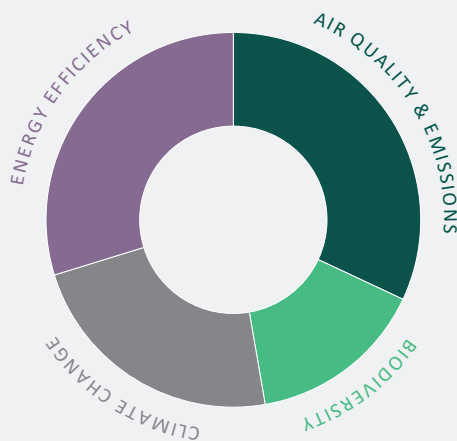
ENVIRONMENT

All specialists and experts agree on the **continuous increase in emissions of greenhouse gases**, year after year. 2018 reached a new record high (55,3 GtCO₂) with the dominance of the fossil CO₂ emissions from energy use and industry. The consequences of COVID-19 might slowdown this observation but likely only in the short term horizon only. Human activities are the root cause of global warming, which is affecting people, ecosystems and livelihoods worldwide. The scenario of 2 degrees is challenging; nevertheless, governments should be more ambitious given the gains a scenario of 1.5 degrees offers compared to the 2°C scenario. For example, the area at risk of ecosystems' transformation (from one type to another) is estimated 50% lower between the two scenarios (source: IPCC Special report on global warming of 1,5°C). In order to achieve this, unprecedented industry transitions are needed, as well as major changes across all aspects of our society.

The most industrialized countries are regularly pointed as the biggest polluters (and indeed G20 members account for around 78% of global GHG emissions). Nevertheless, there are also efforts needed from emerging countries to induce **a fair transition**. Indeed non OECD emissions have substantially increased over the last several years, close to the double of the emissions levels of the OECD.

The emissions must be observed globally i.e. consumption-based emission should also be included in the carbon footprint. They could tell another story when included; the EU per capital emissions are therefore higher than Chinese ones when consumption-based emissions are included.

Up to now, the commitments from the countries are quite deceiving with few frontrunners and a bleak global picture. **The question of deforestation** is also key here. Many countries have committed to net zero deforestation targets in the coming decades, but actions and measures have not followed up to now. However, **climate protection and adaptation are pre-requirements for social rest and peaceful stability**. Today, States have technological decarbonization innovations and progress at their disposal at a cheaper cost than in the past. Synergies can be high between climate action and economic growth, as a lever for job creation for example. Finally they can benefit from the momentum to adopt ambitious policies while concerting all stakeholders.



DPAM and its commitment towards sustainability

Degroof Petercam Asset Management (DPAM) considers today's global challenges as major opportunities for tomorrow. By looking at the world from a disciplined and broader perspective, our partners and investors stand to benefit from our approach and expertise. For us, being a responsible investor is not solely about offering responsible products, it is a global commitment at the company level defined by a consistent approach to sustainability.

Our commitment



Defend the basic and fundamental rights

- Human Rights, Labour Rights, Fight against Corruption and Protection of Environment



Express an opinion on controversial activities

- No financing of usual suspects
- Clear controversial activity policy & Engagement on controversial issues
- Avoid controversies that may affect reputation, long term growth and investments



Be a responsible stakeholder and promote transparency

- Bring sustainable solutions to ESG challenges
- Engage with companies, promote best practices and improvements

The mission statement of responsible investing is the cornerstone of DPAM's commitment to sustainable finance and aims at fostering a sustainable economy by unlocking long-term economic and social value. DPAM is an independent financial institution with the fiduciary duty to act in the best long-term interests of its clients.

Individuals, organisations, companies and countries, all face a growing number of long-term challenges and new paradigms. That is why investors are increasingly paying attention to sustainability factors and their impact on the long term. This has all resulted in new insights in the field of financial analysis. Sustainable development is part and parcel of profitability and the ability to create long-term shareholder value.

We aim at aligning our investment activities with the broader interests of society. This predominantly involves incorporating in our decision making process key questions about the impact of our investment. DPAM turns to various independent experts specialized in environmental, social and governance matters. As a member of our scientific boards or as an invitee to our "responsible investment corners", they make an important contribution to enhancing our processes and methodologies. Sharing information and engaging with a positive yet critical mind-set endow DPAM's professionals with a sense of responsibility and prompts them to act as knowledgeable and well-informed investors.

Integrating ESG challenges with knowledge about risks and opportunities

DPAM's core business is managing assets for its clients in their sole interest, based on a financial objective that is consistent with the client's objectives and guidelines. We are convinced that ESG-issues can impact the performance of investment solutions. By identifying risks related to ESG challenges we can get a better understanding of the broader risks involved in an investment and this makes our management more proactive.

At DPAM, ESG issues are not isolated processes but are fully integrated throughout the entire investment process. This is done through engaging with companies by the investment and research teams as well

as different stakeholders such as extra financial rating agencies. We refrain from “dictating” to our clients what is responsible or not, nor what is sustainable or not. However, we map all the risks and opportunities associated with a specific investment and understand how ESG factors affect our investment decisions.

Responsible ownership: making its voice heard

As a shareholder and economic actor, DPAM bears a personal social responsibility:

- Ensuring that the rights of shareholders and other stakeholders are respected. DPAM has adopted a voting policy and participates in general and extraordinary shareholders’ meetings. We speak up so that the companies we invest in are managed according to best practices in terms of corporate responsibility. Our voting policy provides detail on our approach to promoting best practices in terms of corporate governance.
- Engaging in a dialogue with the companies we invest in. This means, raising key questions with investee companies and engaging with them to ensure that the rights of shareholders as well as those of other stakeholders are respected to create long term shareholder value. Our engagement program details our commitment and procedures to uphold this vision.

DPAM became a signatory to the UN Principles for Responsible Investment (PRI) in 2011. This has been an important milestone in our sustainable journey by adopting a clear and formalized responsible investment policy and by prompting us to integrate ESG in our financial analysis.

| | |
|---|---|
|  <p>OVER A 18 YEAR TRACK RECORD in sustainable investing</p> |  <p>SIGNATORY OF UN-PRI SINCE 2011 Highest rating A+ for our expertise</p> |
|  <p>PIONEER IN SUSTAINABLE SOVEREIGN DEBT over EUR 2.3 bn invested</p> |  <p>OVER EUR 7 bn IN SUSTAINABLE STRATEGIES, across various asset classes</p> |
|  <p>EXERCISE OUR VOTING RIGHTS IN 571 COMPANIES in Europe and North America</p> |  <p>All sustainable funds accredited with both the INDEPENDENT LUXFLAG ESG LABEL and the FEBELFIN TOWARDS SUSTAINABILITY LABEL</p> |
|  <p>ACTIVELY ENGAGED IN DIALOGUE WITH OVER 170 COMPANIES regarding corporate governance practices</p> |  <p>Supporter of TCFD RECOMMENDATIONS and SIGNATORY OF THE CLIMATE ACTION 100+</p> |

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