

GLOBAL ATTRACTIVENESS INDEX 2018

3rd edition



THE THERMOMETER OF A COUNTRY'S ATTRACTIVENESS



The European House
Ambrosetti



GLOBAL ATTRACTIVENESS INDEX 2018

The thermometer of a country's attractiveness

Strategic Report



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PREFACE

***“The point is that if we don’t change our behavior,
we’ll all just keep falling.
All of us need to examine our consciences
and decide what type of change we want:
our own or other people”***

*Sergio Marchionne,
The European House – Ambrosetti
“Intelligence on the World, Europe, and Italy”,
Forum, September 7, 2014*

We have to change our behaviour. Too often, Italy tends to “feel sorry for itself” and fails to take enough pride in those things in which it excels. It is no accident that Italy is the 3rd worst country in the world, after South Africa and Brazil, in terms of the gap between its reputation as perceived by foreigners and that perceived by Italians, as evidenced in the rankings published annually by the Reputation Institute.

This tendency to “put itself down” is the main reason why Italy is always in the lower half of international rankings. Almost all the rankings of cross-country competitiveness are based on qualitative surveys and/or use weightings that introduce subjective factors which render comparison useless and lead to even significant misrepresentation in terms of the actual situation.

The numerous areas in which Italy excels do not seem to be properly reflected in international rankings. For example, Italy is among the top five countries in the world with a manufacturing trade surplus over \$100 billion and the no. 2 country in Europe and 4th in the world in terms of manufacturing sector value added.

But why is this point so important? Following the liberalization of capital flows and the spread of globalization, international rankings have acquired increased importance in guiding the investment choices of multinationals. More and more often, in corporate headquarters of multinationals, the choice of one country over another in which to establish a new plant is based on its competitiveness ranking.

It was on the basis of these considerations that two years ago The European House – Ambrosetti – with ABB, Toyota Material Handling and Unilever – launched the “Global Attractiveness Index” initiative, which also benefits from the contribution of two eminent advisors, Ferruccio de Bortoli and Enrico Giovannini.

This initiative, now in its third year, has the ambitious goal of developing a process whose final purpose is not the “demolition” in itself of other country rankings, but rather the construction and diffusion of an approach and methodologies that are more objective, exacting and reliable in evaluating the attractiveness of country systems.

The publication of the 2018 report comes at a moment in which the signs of uncertainty on both a geopolitical and economic level are accelerating and could change future scenarios. Within this context, Italy remains a country with a good level of attractiveness, ranking 16th out of the 144 countries surveyed, but in a position quite distant from those that are highly-attractive.

This fact is also confirmed by an unsatisfactory Dynamism Index. Compared with attractiveness and the other countries mapped, Italy is still moving relatively more slowly and, therefore, an improvement in its ranking is less likely in the short-term. If we want to rise in terms of competitiveness we must run faster than the others, not just faster than yesterday. And currently, we are continuing to run more slowly than the others.

As in past years, the methodological approach of the Global Attractiveness Index has been further honed. First of all, the past data for the 144 countries was reconstructed to guarantee that the statistics were technically comparable and gathered according to the same criteria. An important and ambitious innovation in method introduced last year has also been maintained: the Global Attractiveness Index was recalculated on the basis of the last six years in order to take into consideration any changes connected with the updating of past data by international survey organizations.

Our consultants have reconstructed the index's database from the past, assessing 12 years of observations for 144 countries, with more than 65 Key Performance Indicators mapped and analyzed, and recalculating the index for the last six years, for a total of more than 670,000 data points.

During the course of this initiative, which will continue into the future, The European House – Ambrosetti has established a cooperation with the Joint Research Centre (JRC) of the European Commission—to whom go my special thanks—in the hope of obtaining statistical validation and scientific control of the quality of the Global Attractiveness Index.

Before I invite you to read the document, I would like to emphasize that this undertaking would not have been possible without the cooperation of the executives of the companies that are our partners in the project— Ambrogio Bollini (Supply Senior Vice President, Toyota Material Handling), Mario Corsi (Managing Director, ABB), Matteo Marini (Chairman, ABB), Leonardo Salcerini (CEO, Toyota Material Handling) and Fulvio Guarneri (Chairman & CEO, Unilever) who agreed to share their vision of this ambitious initiative—and without the invaluable contribution of the advisors— Ferruccio de Bortoli and Enrico Giovannini—to whom goes my deepest gratitude.

Lastly, heartfelt thanks go to The European House – Ambrosetti Working Group, made up of Massimiliano Sartori, Cetti Lauteta, Benedetta Brioschi, Diego Begnozzi, Fabiola Gnocchi and Silvia Caliaro.

Valerio De Molli
Managing Partner & CEO
The European House – Ambrosetti

CONTRIBUTIONS OF THE ADVISORY BOARD SCIENTIFIC COMMITTEE

ENRICO GIOVANNINI

Professor, Economic Statistics, University of Rome “Tor Vergata”, former President of ISTAT and Minister of Labor and Social Policy

The publication of the Global Attractiveness Index 2018 (GAI 2018) comes at a delicate moment for the Italian and world economies. The growth forecasts made only a few months ago have been subjected to continuous downward revision and, although no one is talking about an imminent global crisis, uncertainty is strong on financial markets and among investors. The US policy aimed at imposing duties on imports from specific areas of the world (China first and foremost, but also Europe), which has triggered similar behavior towards goods exported from the United States by the countries involved, is having a significant impact on international trade and, as a result, on economic growth. The turbulence currently seen in Turkey—an important country for ties between Europe and the Middle East and not only on an economic level—and the uncertainty surrounding the outcome of the Brexit negotiations are having significant repercussions on European markets and the strategies of major multinationals. Finally, the expected cessation of the Quantitative Easing (QE) carried out in the last few years by the European Central Bank (ECB) cannot help but have a concrete impact on the European economy that is growing, but at rates which, especially in certain countries, seem insufficient to reabsorb the unemployment and poverty created over the last decade.

Within this context, Italy is preparing to take on a fundamental challenge for its new government: the outlining of the upcoming budget and the economic and financial policy to be followed over the next few years. Clearly, this is a crucial step, not only in terms of managing public spending, but also in the choice of the growth model of an economy which, from this standpoint, finds itself habitually ranked at the bottom in Europe. In fact, it involves having to choose between consumption-driven growth (which would seem to be preferred by some factions within the current governing majority) and growth that is investment-driven (as indicated by the Ministry of Finance).

The macroeconomic figures from 2017 and the early months of 2018 confirm that investment, as a percentage of gross domestic product (GDP), remains well below pre-crisis levels. While one of the nearly three percentage points lacking from the investment/GDP ratio would seem due to the public sector component, two points derive from low private sector investment which has not manifested the classic “rebound” following an economic crisis, despite the expansionist monetary policy followed by the ECB and low interest rates. Since Italy seems significantly behind, including in comparison with major European countries, in terms of infrastructure (above all, but not only in the Mezzogiorno, Italy’s south), and given the extraordinary opportunities the transition to a “digicircular” economy (i.e., both digital and circular¹) could generate for the economic, social and environmental development of Italy, we

¹ Regarding this, see my book, “*L’utopia sostenibile*”, 2018, Laterza.

cannot help but ask ourselves what the elements are which, above and beyond favorable monetary conditions, attract domestic and foreign investment.

The answer to this question is offered by the GAI 2018 which, once again, places Italy among those countries with a good level of attractiveness, but fairly distant from those that are highly-attractive. If between 2014 and 2018 Italy improved its standing from 20th to 16th position, it is clear that in the last three years the situation in the country has been basically stable in the rankings overall, a result also confirmed by its decidedly unsatisfactory dynamism index. The primary weaknesses of Italy's standing seem linked to the high level of unemployment and high tax load while, in terms of dynamism, recent years have seen unsatisfactory performance in the level of innovation in ICT and the overall productivity of the factors which express the level of "efficiency" of the economy, above and beyond the specific productivity of capital and labor.

I am sure that some reading this report will be surprised by these results, especially given the economic recovery currently underway and the many positive results claimed by the various governments which have led the country in recent years. In reality, there is no contradiction given that the GAI records "relative" and not "absolute" performance. So, if Italy records better results than a few years ago, but the situations in other countries improve more than in Italy, Italy's ranking will, in fact, worsen. Additionally, the GAI is a complex index which takes many factors into consideration, exactly as investors do when they must decide where to concentrate their efforts. Therefore, it requires a broad-ranging and integrated view of reality, something the media (not to mention political propaganda) is rarely able to offer given its focus on "breaking news".

Leaving aside the communications-related aspects, the wealth and detail of the information contained in the GAI makes it difficult for a country to make any significant "advance" in the rankings through initiatives that improve a specific aspect of the social-economic system. As proof of this aspect of the GAI—decidedly positive in that it demonstrates just how "hardy" the index is—the results of the simulations contained in the 2018 report should be noted, in which it is hypothesized that some of the geographical gaps present in Italy will be overcome, as well as the (partial or total) elimination of the distance between Italy and its main European partners in some areas.

As shown in the report, hypothesizing the closing of the gap between Italy's South and its Central-Northern regions in terms of foreign trade of goods and services, Internet use, unemployment, per capita income and number of college graduates, would improve Italy's standing in the GAI 2018 from 16th to 14th position. While acknowledging the need to overcome the perennial geographical double-standard in Italy in economic and social terms, this simulation belies the belief that Italy's problems are tied solely to backwardness in the South. Quite the contrary, some of the aspects which reduce Italy's attractiveness are nationwide and require action in aspects that characterize the entire Italian social-economic situation.

Similar conclusions can be gleaned from the second group of simulations that are based on the reduction or elimination of the existing gaps with the three largest countries in the European Union (Germany, France and the United Kingdom) in 15 of the 21 indicators which comprise the GAI. Hypothesizing the recovery of half of the existing

gaps, Italy would rise two positions, and if they were to be eliminated, it would gain three positions (from 16th to 13th place). In this latter case, Italy would surpass Belgium, Austria and Switzerland, while still remaining distant from the top of the rankings (Italy's standing in the index would be ten points below that of the lowest of the countries ranked highly-attractive).

To conclude, the message emerging from this analysis is that there are no easy “short-cuts” to increase Italy's attractiveness, nor are there any silver bullets, in other words, specific initiatives capable of resolving all problems, as political propaganda so often tends to suggest. On the contrary, to attract investment, talent and resources, a broad-ranging commitment towards modernizing Italy is required. A commitment to be pursued rationally and with perseverance taking into consideration the various economic, social, cultural and environmental facts on which the endowment of the factors, the openness of the “system”, its efficiency and propensity for innovation depend. “Vast program”, De Gaulle might have said (as he is reported to have exclaimed in response to the slogan “death to fools”), but it is the only serious program which, as shown by the experience of other countries in the top positions of the GAI 2018 rankings, would make it possible to improve Italy's economic prospects—radically and long-term.

FERRUCCIO DE BORTOLI

President, Longanesi Publishers and Associazione Vidas

Imagine an Italian group selfie in which many of those in the picture seem annoyed at being photographed and keep a close eye on each other, as if in eternal competition. Totally oblivious to the camera lens. A number of international rankings, based on surveys—on interviews of individuals and companies about their “perceptions”—are taken exactly this way. Conditioned by some modest national pride that is negated by deep-seated domestic rivalry. Business and economic leaders in other countries put on broad but completely false smiles when their pictures are taken. Skilled in patriotically hiding obstacles and defects. But we just highlight the obstacles and defects (which exist and must absolutely not be swept under the carpet) with a self-flagellating light, confident that international observers will be able to distinguish our merits from the sins of the other Italians around us, but on whom we tend to heap all the guilt.

As a result, the myriad examples of excellence tend not to be noticed. And this is the worst kind of waste, if you think about it. Unforgivable. Being Italian, and everything this involves in blending culture, innovation and “savoir faire”, is not perceived as a national attribute. That is unique. Inimitable. It is seen as a series of various personal or corporate success stories. Attained despite everything. Not the product of a single leadership approach reflected in many different business contexts. There are centuries of history, years of layers of local experience and relationships that make Italy a fabulous multi-colored creature of incomparable beauty, but also random and arbitrary, and thus difficult to combine into a national synthesis.

The three-year experience of the GAI—the Global Attractiveness Index which is the initiative of The European House – Ambrosetti together with ABB, Toyota Material Handling and Unilever—was born of this sincere, even if in some ways bitter, observation. But at the same time, also from the awareness of how extraordinary the work, inventiveness and originality of “Made in Italy” is and how prestigious the records it holds. Something even Italians themselves are unaware of, as revealed by the #italyisdifferent campaign on major social networks. International rankings do not do us justice. But some of the blame is also ours. Despite the success of its products and services and popularity with tourists, Italy still lacks a systematic attractiveness policy and shared strategy regarding its image. For example, there is no official Italian brand, or even, to-date, a concerted proposal for digital marketing. In short: we do not present ourselves for what we are. Every man for himself, but not everyone for all. The proposal to have—as is the case in other countries that have made the ability to rank well a business—a Mr. or Mrs. Ranking has never left the planning stage.

Thanks to the work done in the previous two years and the many initiatives and presentations resulting from this work, something has begun to move. And this is already significant. The methodology of the GAI has been accredited on an international level, specifically by the OECD. The meetings coordinated by Enrico Giovannini have resulted in beneficial exchanges among economists of various backgrounds. And this has made it possible to further hone the Index to create a broad and conspicuous data base regarding the Italian economy. The widespread plan for the accreditation and diffusion of the goals of the GAI has had a positive influence in the assessment of all attractiveness factors, including in a number of rankings in which

Italy was significantly underrated. In others, however, Italy has dropped in the standings. For example, in the ICT Development Index, in 2017 we dropped from the 31st to the 41st place. Multi-factor productivity remains our “Achilles’ heel”. We dropped from 52nd to 63rd place. In fifteen years, we have not been able to improve this. This is the open wound.

In developing and continuously upgrading the key performance indicators (KPIs), the GAI working group has placed special emphasis on those elements that could result in an increase in the productivity on which the nation’s growth depends. The smaller size of its companies, the delay in introducing digital technologies, the external diseconomies connected with infrastructure, bureaucracy and the judicial system, and the chronic slowness in payments, especially within the public administration sector, are among the factors which most strongly impact on productivity levels. The lead group of Italy’s best companies is on a par with, if not superior to, the competition. The rest, especially those companies that are too-tied to the domestic market, find themselves in difficulty, barely plodding along. Sometimes within a state mediocrity offering no future. The question of training human capital—especially given the rather low number of college graduates and the lack of available trained technicians and graduates in professional fields—emerges as a fundamental challenge on the arduous road to development.

In the third GAI report which we present here, the Index was updated to include 144 countries. The databased used for the GAI takes into consideration over 65 key performance indicators (KPIs) re-aggregated in 6 key aspects that measure the level of attractiveness and sustainability of a country: openness, innovation, efficiency, holdings, resilience and vulnerability. A background index, unique in its genre, was calculated on the basis of six years (2013-2018). Over 6,000 items of available data were verified and compared.

Its ranking as 16th in the GAI 2018 shows that Italy is part of the cluster of countries with “good attractiveness”, but it is quite removed from the group of top countries. It has improved in a number of aspects, but once again it should be noted—especially given the particular political context in which we currently find ourselves—that in international competition what counts is not one’s individual speed, but the relative speed. We need to compare ourselves with others, not with ourselves. The drunken trend towards sovereignty that is currently sweeping the political plain—the “belly-button syndrome”, the tendency to consider only one’s internal situation—is not without its costs, while heralding a multitude of illusions. This is one of the GAI’s many strong points. The 2018 report also offers a series of simulations regarding what would occur to the nation’s international ranking if the North-South gap were to be eliminated and if Italy were to come into line with the three major partners to which it has always compared itself (Germany, the United Kingdom and France). History is not made of “what ifs” or even the economy. But they are scenarios that aid in better understanding the potential and risks. Above all the latter.

CONTRIBUTIONS OF OTHER ADVISORY BOARD MEMBERS

FULVIO GUARNERI

Chairman & CEO, Unilever Italy Holdings

Today, an area's attractiveness is fundamental because it conditions the decisions of companies and individuals about where to locate and, as a result, the overall level of talent, capital and productive assets that area has available.

Competition among areas in attracting resources has grown in recent years and presupposes the ability to manage the country's image and its competitiveness. It is no accident that the number of international rankings comparing countries has multiplied in recent years. And with this, their importance has also grown. Increasingly, country rankings are used as a basic information tool in determining investment choices and positioning the country in the eyes of the business community and international public opinion.

At Unilever, we are convinced of the importance of having a composite index that is capable of rigorously synthesizing the multi-dimensional nature of the concept of attractiveness and which is based on quantitative indicators. We also believe it is fundamental that these indicators provide an accurate picture of the business situation of the country because they are decisive in strategic economic/financial decision-making.

Unilever has been a part of the Global Attractiveness Index from its inception in 2015, its desire and objective being to offer its experience as a global corporation that has decided to continue to believe in Italy, with the goal of facilitating initiatives which could render our country more attractive to investors. Our company's strong ties to Italy confirm our desire to contribute to increasing the importance of our country within the international context.

Again this year, the fact that Italy must continue to provide support for its international standing has been confirmed: support through long-term policies aimed at taking full advantage of its patrimony of tangible and intangible resources.

Too often, Italians themselves fail to perceive the excellences found in their own country and, as a consequence, do not promote them fully. We have a cultural tendency to judge ourselves more harshly than we deserve, and this partially explains why in perception-based surveys, we find ourselves ranked at the bottom.

This is not a secondary aspect. As highlighted in the Action Plan for Italy developed by The European House – Ambrosetti, there are some areas of work in which it is important to concentrate specific actions in the near future, first and foremost investment—both public and private—which, in recent years, has been the major “non-presence” and without which the nation will continue to place last in terms of economic growth on a European level.

Challenges will certainly not be lacking in the near future and it is because of this that we must continue to believe in Italy and force ourselves to “think differently” by extolling its many areas of excellence and working on the strong points that can contribute to unleashing its potential.

KEY FACTS & FIGURES

UNILEVER ITALIA

In Italy for more 50 years

Headquarters: Rome, Lazio

Unilever is one of the main companies operating in the Food, Home and Personal Care markets. Present in over 190 countries around the world, its products reach 2.5 billion consumers each day. On a global level, it employs around 169,000 people and in 2016 it had a turnover of 52.7 billion euros. About 57% of the company's turnover is in developing countries and emerging markets.

Unilever Italia closed 2016 with a turnover of 1.4 billion euros, 10% of the Unilever Europe total. Today, the company has over 3,000 employees who work primarily at the Rome corporate headquarters and its five production plants: Caivano (Naples), Sanguinetto (Verona), Casalpusterlengo (Lodi), Pozzilli (Isernia) and Mappano (Turin), which are among the most advanced in Europe in terms of size, safety, technology, respect for the environment and productivity. The Casalpusterlengo plant also boasts an international-level R&D center.

Overall investment in Italy in the last five years was 40 million euros in the Sanguinetto plant, over 15 million euros in Casalpusterlengo, and 20 million euros in Pozzilli and Caivano. In addition, in 2015, Unilever acquired the Turin Company that produces GROM ice cream, with the goal of promoting its growth and internationalization.

The company's portfolio includes over 400 brands, including Dove, Sunsilk, Knorr, Algida, Magnum, Lipton, Mentadent, Svelto and Cocolino. Of these, about 40 are present in Italy.

The Unilever Sustainable Living Plan (USLP), the company's long-term growth plan, has set three macro-goals:

- by the year 2020, help more than a billion people to improve their health and well-being;
- halve the environmental impact of its products by 2030;
- by 2020, improve the living conditions of millions of people.

In 2016, Unilever ranked first in the Dow Jones Sustainability Index for its sector. The FTSE4Good Index awarded the company the highest score in the Environment category. In addition, for the last six years, Unilever has led the Global Corporate Sustainability Leaders ranking and is considered to be the most sustainable on a global level in the Food & Beverage category of the Oxfam "Behind the Brands" ranking.

LEONARDO SALCERINI

Managing Director, Toyota Material Handling Italia

The story of mankind is based on a very banal, yet fundamental, principle: there can be no evolution without change. But change is not something to be suffered, it must be comprehended and interpreted. Toyota has made change a cornerstone of its story. How else, if not as an “aptitude for change”, could that continuous tension towards improvement that we encapsulate in the term *kaizen* be described?

However, as natural as it may be, change requires courage and imagination. It is these two values that have led to mankind’s most sensational discoveries: the courage to venture into the unknown, overcoming one’s fears and challenging accepted thinking; imagination that makes it possible to give form to the most audacious dreams and discover unusual, innovative and epoch-changing solutions. It all seems so difficult, and for this reason, change often scares companies to the extent that it virtually paralyzes them. But it doesn’t have to.

We live in an era of great change which has rapidly transformed and continues to transform our world. However, we must understand that what we are facing is not a threat—it is a tremendous opportunity. Digitalization is building a new future for global industry. What is known as the “4th Industrial Revolution” can already be found in many warehouses and logistics hubs throughout the world, including in Italy. Solutions and systems which were unthinkable until just a few years ago have become reality and efficaciously contribute to combining exceptional results and enhanced well-being for those working in those facilities.

At Toyota, we are absolutely convinced that the new technologies represent a fundamental opportunity for the relaunching of Italy. Sadly, there are rankings where, today, Italy is positioned lower, behind Asian and African countries which, until fairly recently, were considered to be among the ranks of developing nations. For some time now, Toyota has decided to focus on Italy, more than on other countries. The Material Handling division alone, which before 2000 was not present in Italy, today has two production plants with a turnover of over 700 million euros, more than 1,200 employees and over 100 affiliated organizations for sales and assistance throughout the entire country.

In all this, Toyota has never seen Italy as simply a “land to be conquered”, but rather a country in which talents with exceptional and unique competencies in terms of engineering, mechanics, manufacturing and also intellectual activity have traditionally flourished. We have invested and continue to invest in the courage of Italian companies that make quality their greatest value, and in the imagination of Italian management which continues to search for solutions outside the box.

Courage and imagination—these are the key concepts. The individuals who are most courageous and, above all, have the most lively imaginations in the world are children. It is no accident that it is from the millennials and the younger generation that invaluable ways of interpreting the present and anticipating the future are reaching us.

Our invitation to Italian companies is, therefore, to now find within themselves that courage and imagination which has always been a driver for evolution, and to look to the profound changes currently underway with the wonder-struck eyes of a child.

KEY FACTS & FIGURES

TOYOTA MATERIAL HANDLING

In Italy for 17 years

Headquarters: Bologna, Emilia Romagna

Toyota Material Handling Italia is the Italian branch of the Toyota Material Handling Group (TMHG), a member of the Toyota Industries Corporation (TICO). Founded by Sakichi Toyota in 1926 to produce automatic looms, TICO began producing cars in 1933 and forklifts in 1956. Today, it has four major areas of business: automotive, material handling, textile equipment and other.

In 2000, TICO acquired the Swedish company Bt Industries AB, already a leader in the design and manufacture of warehouse forklifts, to create the Toyota Material Handling Group (TMHG) with the goal of consolidating its activity in the material handling sector on a worldwide scale.

The Material Handling division currently operates in five geographical areas—Europe, North America, Japan, China and other international markets—and distributes four brands of forklifts (Toyota, BT, Cesab and Raymond). Since 2001 it has been the undisputed world leader in material handling, in first place in the DHF, Logistik Journal and Modern Material Handling ranking. As of March 2017, TICO employs 61,200 people, of which over 41,000 in the material handling sector.

In Italy, the Toyota Material Handling sales network includes 6 direct offices (in Piedmont, Lombardy, Emilia Romagna, Veneto, Tuscany and Lazio) and over 100 indirect sales and customer service organizations. Its local service network is unparalleled in the sector, with over 1,000 specialized technicians located throughout the country.

In tune with the company's mission "to be the partner of choice for every company looking for material handling solutions", Toyota Material Handling Italia offers a full range of forklifts and a broad gamma of services and solutions: financing and individual rental plans, a vast selection of affordable, quality used and reconditioned forklifts, and state-of-the-art service.

As of March 2017(*), TICO's turnover was 15.4 billion euros, of which 10.1 billion euros in the Material Handling Division alone, with approximately 263,000 units on the market. During the same period, the European section registered a record 102,000 units sold (more than a third of the global level) with a turnover of over 2.3 billion euros, a workforce of 10,800 individuals in the various corporate areas, of which 4,900 involved in service functions. Toyota Material Handling Italia closed fiscal year 2017 with a 23.1% share of the market, over 11,200 new forklifts placed on the market and consolidated turnover of 289 million euros.

(*) Fiscal year 2018 spans the period April 1, 2017 to March 31, 2018. Amounts are given in euros at an exchange rate of ¥130 / €1

MATTEO MARINI

President, ABB Italia

MARIO CORSI

Managing Director, ABB Italia

The process launched by the Global Attractiveness Index initiative—of which we are staunch supporters—has confirmed us in our belief that Italy must support its international positioning with a long-term policy aimed at capitalizing on both its tangible and intangible resources.

Considering the business world context on which this study is focused, we believe that Italy could be highly attractive if it were to relaunch some aspects of its rich patrimony. Above and beyond factors linked to the market and context (size, presence of supply chains/districts, dynamism, infrastructure, quality of government and the social environment, and regulation) Italian excellence can and must express itself at the highest levels through the solidity of its expertise, the dynamism of its innovative ferment and the quality of its manufacturing system.

In ABB's recent past these three elements were crucial in decision-making phases linked to the acquisition of Italian companies which, today, represent strategic elements in the reinforcement and broadening of the portfolio of solutions for our Group on a global level.

However, these three elements require a constant push and resolute stimulus for innovation that can guarantee the sustainability of the country and its economy over the long-term.

In terms of manufacturing, the impetus provided by the National Plan for Industry 4.0 certainly represents a push in terms of digitalization and the development of new production and business models which, at the same time, could reinforce competitiveness and create the basis for a dynamic and on-going process of innovation. We are certain that, in addition to the technological innovation and benefits that this could bring within the context of the digital revolution, the emergence of numerous best practices that Italian companies and numerous multinationals with solid roots in Italy can pool, could represent a process of sharing and positive cross-fertilization of immense value.

This digital ecosystem could certainly represent an accelerator for experiences on a local level and thus contribute to stimulating—including in small- and medium-sized companies—the development of long-term integrated digitalization strategies that require major investment, including in terms of training of professionals who will make the difference in the near future.

Our hope is that the sense of urgency that the changes currently underway invite us to pursue, will guide public and private decision-makers to promote the relaunching of Italy's economy and, at the same time, hold high the banner of Italian excellence of which we are the proud ambassadors throughout the world.

KEY FACTS & FIGURES

ABB Italia

In Italy for over 125 years, it was established in the current corporate form 30 years ago

Headquarters: Sesto San Giovanni, Lombardy

ABB is a leader in technologies for energy and automation that allow utilities, industry and clients in transport and infrastructure to improve their performance while at the same time reducing environmental impact. Member companies of the ABB Group operate in over 100 countries and employ approximately 147,000 people.

ABB Italia has a turnover of more than 2.2 billion euros which represents 7% of the Group's revenues worldwide, and exports account for 62% of total sales. The company has about 5,800 employees throughout Italy and is an active component of the country and its economy.

The continuation of a history of innovation that spans more than 125 years, ABB, today, is writing the future of industrial digitalization and is guiding the fourth industrial and energy revolution. For more than four decades in the front lines of the digital technologies sector, the company is a leader in digital launching and connection of equipment and systems, with an installation base of over 70,000 control systems which interconnect 70 million devices. Thanks to the ABB Ability™ digital platform, ABB has made a quantum leap in digitalization as can be seen in the scope of its digital end-to-end solutions.

The company's points of excellence include:

- Technological (development of products and systems that are applied throughout the world);
- Operational (manufacturing plants and automation that are state-of-the-art);
- Engineering (utilities and oil & gas installations created by Italian teams and exported around the globe).

ABB has been nominated by the magazine Fortune the eighth Group that worldwide has engaged in the development of technologies that can "change the world" (Ranking "Change the World - Fortune - Sept. 2018) above all in virtue of its commitment in sustainable mobility and attention to the social impact of its strategic activities. In terms of ABB Italia specifically:

- it invests 3.4% of its revenues in research and development;
- in the last three years, it has launched 30 research and development projects and over 230 internships and doctorates in collaboration with Italian universities;
- provides knowledge and expertise throughout the world in various areas, including Industry 4.0 and sustainable mobility, with particular attention to the issue of electric mobility extended to public and private transport systems, for which it develops connected fast charging systems. With over 7,000 charging points installed worldwide, ABB is positioned as a leader in the field of electric mobility.

ABSTRACT

In 2016 The European House – Ambrosetti launched the Global Attractiveness Index (GAI) initiative designed to make available to international decision-makers an innovative country-index, that would offer a representative snapshot of the attractiveness, dynamism and sustainability of countries.

The initiative continues this year as well, with the intent to:

- strengthen the **GAI statistical-economic model** to make it a reference tool in the decision-making process of businesses and policy-makers;
- consolidate an **international platform for constructive discussion and reflection** on attractiveness and competitiveness of countries and regional areas that would involve key stakeholders in this process;
- produce information, awareness and guidelines **to stimulate improvement in the strategic management of attractiveness** and a pro-business image of countries and their economies throughout the world.

The project benefits from the contribution of a Scientific Committee comprised of:

- Ferruccio De Bortoli (President, Longanesi Publishers and Associazione Vidas);
- Enrico Giovannini (Professor, Economic Statistics, University of Rome “Tor Vergata”, former President of ISTAT and Minister of Labor and Social Policy).

Moreover, it is supported and benefits from the contributions of the top management of ABB, Toyota Material Handling and Unilever. The GAI is also certified by **an independent audit carried out by the Centre on Composite Indicators and Scoreboards of the Joint Research Centre** of the European Commission².

The GAI is an index that looks at the “attractiveness” of a country and its economic system as the **prerequisite and determining element of its ability to be competitive and develop**.

According to the structure, set out ever since its launch, the GAI is a composite index structured in three different sub-indices:

- a Positioning Index (PI);
- a Dynamism Index (DI);
- a Sustainability Index (SI).

The goal is to outline a complete profile of a country’s economic system conditions, in accordance with a triple dimension:

- **Static** (current situation) - PI;
- **Dynamic** (short-to-medium term trend) - DI;
- **Prospective** (potential future evolution) - SI.

² The JRC’s independent statistical audit is available on the website www.ambrosetti.eu, on the dedicated Global Attractiveness Index page.

This is a **distinctive element of the GAI model** compared with the most widely-used country rankings today which tend to favor a static view of the ranking attained, without providing insight into the other two elements—dynamic and prospective—which are just as important for an in-depth evaluation of the situation of a given area.

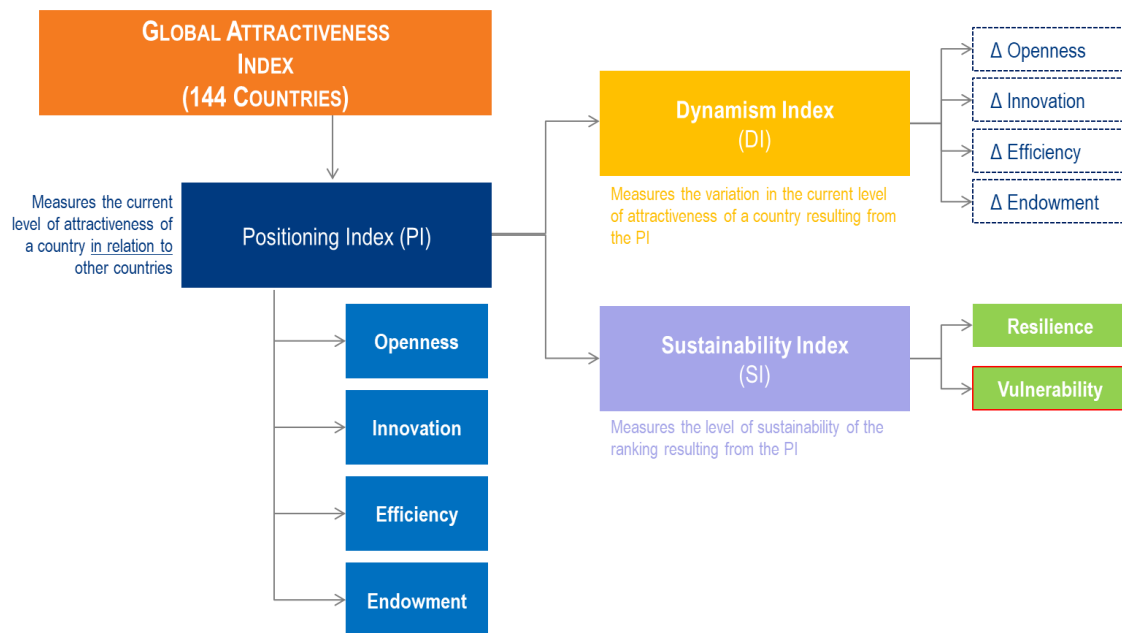


Figure 1. Structure of the Global Attractiveness Index. *Source: The European House – Ambrosetti data elaboration, 2018*

The **Positioning Index (PI)** provides a detailed picture of the situation in a given year, providing a ranking and score (from 0 = minimum, to 100 = maximum) that makes it possible to highlight the relative differences between countries. The Positioning Index considers four cornerstones of attractiveness: openness, innovation, efficiency and resources. Each cornerstone is in turn constructed taking into account different KPIs (5 KPIs for the cornerstones of openness, innovation and efficiency, 6 for the cornerstone of resources) that are equally weighted. What is more, every KPI is calculated in a relative way compared with a dimension of reference, that can be internal (for example the “number of migrants” KPI is calculated in proportion to the country's population) or external (for example the “number of scientific publications” KPI is calculated as a percentage of the global overall figure). The four cornerstones are then subsequently aggregated in the Positioning Index, that is re-weighted on a scale from 0 (minimum) to 100 (maximum).

As a corollary of the Positioning Index, the **Dynamism Index** shows the intensity of the variation - and therefore of the growth - in the preceding three-year period. The Dynamism Index is constructed using the same logic used for the Positioning Index, and takes the three-year variations of the Positioning Index KPIs as the starting data.

Finally, the **Sustainability Index** shows how the position achieved in the Positioning Index can be maintained over time. The latter considers two cornerstones that are antithetical and complementary: resilience and vulnerability. In this case too, the two cornerstones are equally weighted.

The Dynamism Index and the Sustainability Index are not published as a ranking, but the quartile to which each country belongs is shown: high (positions 1 to 36), average (positions 37 - 72), low (73 - 108) and critical (109 - 144).

The GAI is a relative index that measures the evolution of the attractiveness of countries from a comparative standpoint. An improvement in the KPIs does not necessarily imply an improvement in the overall ranking. In fact, growing, but less than other countries, does nothing more than increase the attractiveness gap. This methodological process makes the GAI an index that is particularly stable and consistent over time, as has also been emphasized in the JRC's statistical audit. Only 11 countries (11% of the total) have changed their rankings, from 2017 to 2018, by more than 10 positions, and narrowing the analysis to the first fifty countries - for which the database is more solid - the stability of the index appears even more pronounced: only 2 countries (4% of the total) have a variation of more than 10 positions. In order to take the statistical updates of the underlying database into account, the GAI is recalculated back every year, each time using the most recent release of data. This important methodological feature makes it possible to offer, for every edition, the most updated snapshot as possible, not only of the current situation, but also that of the past. It also makes it possible to observe the way in which the attractiveness of countries evolves, without potential errors or variations in the processes of estimating past trends affecting the comparisons.

The GAI model uses an integrated system of *Key Performance Indicators* (KPIs).

DIMENSION	MACRO-AREAS	KPI 2018
Attractiveness	Openness	<ul style="list-style-type: none"> ▪ (Foreign Direct Investment flows into the country IN + the country's investment abroad OUT), compared with world total (2016) ▪ (Export + Import), compared with world total (2016) ▪ (No. foreign tourists IN + No. national tourists abroad OUT), compared with population (2016) ▪ Foreign university students, compared with youth population (2016) ▪ Net number of migrants, compared with population (2017)
	Innovation	<ul style="list-style-type: none"> ▪ Employed in high-technology sectors, compared with employed (2017) ▪ Exports of high-technology goods, compared with world total (2016) ▪ ICT Development Index (2017) ▪ Number of scientific publications, compared with world total (2017) ▪ Internet users, % of population (2016)
	Efficiency	<ul style="list-style-type: none"> ▪ Unemployment level (2017) ▪ Logistics Performance Index (2016) ▪ Total productivity of factors (2016) ▪ Rule of Law Index (2017) ▪ Total Tax Rate (2017)
	Endowment	<ul style="list-style-type: none"> ▪ Gross Domestic Product (GDP), compared with world total (2016) ▪ Gross National Product, (GNP), per capita (2016) ▪ Gross Fixed Investment, compared with GDP (2016) ▪ Natural Resource Index (2015) ▪ College graduates, compared with world total (2016) ▪ Students' skills according to PISA test score (2015)
Dynamism	3-year variation of KPIs indicated above for the four Attractiveness attributes	

Sustainability	Resilience	<ul style="list-style-type: none"> ▪ Human Development Index (2015) ▪ Global Peace Index (2017) ▪ Life expectancy at birth (2016) ▪ World Giving Index (2017) ▪ Avg. years of school attendance (2016)
	Vulnerability	<ul style="list-style-type: none"> ▪ Debt/GDP (2016) ▪ Inflation rate (2016) ▪ Market concentration index (2016) ▪ People affected by natural disasters (last 3 years), per 1,000 people (2016) ▪ Number of suicides, % total national population (2016) ▪ Population exposed to risk of poverty, % total national population (2016)

Figure 2. KPIs of the Global Attractiveness Index 2018 and reference year (most recent available). *Source: The European House – Ambrosetti data elaboration, 2018*

The GAI charts **144 countries**, representing 93% of the world's population and 99% percent of global GDP overall. The 2018 ranking shows the USA once again in first position, followed by Germany and Japan. The United Kingdom climbs from 8th to 4th³, whilst for the other 15 countries there is general stability. Italy goes from 17th to 16th, even when taking account of very low dynamism and stable but average sustainability.

³ For many macroeconomic observations the latest data available date back to 2016. The effect of BREXIT has still not been considered.

INTRODUCTION



1. ADVISORY BOARD MEMBERS AND OTHER KEY PROJECT PLAYERS

This Report summarizes and organizes the suggestions, observations and findings of the third year of the Global Attractiveness Index which was created in 2016 with the mission of:

Making available to Italian and international decision-makers an innovative country index—the Global Attractiveness Index (GAI)—that can offer a representative profile of the attractiveness and sustainability of countries and, as a result, provide dependable information to aid in making system-wide choices about growth and optimization of the pro-business environment.

The members of the Advisory Board are:

- **Ambrogio Bollini** (Supply Senior Vice President, Toyota Material Handling)
- **Mario Corsi** (Managing Director, ABB)
- **Ferruccio de Bortoli** (President, Longanesi Publishers and Associazione Vidas)
- **Valerio De Molli** (Managing Partner and Chief Executive Officer, The European House – Ambrosetti)
- **Enrico Giovannini** (Professor, Economic Statistics, University of Rome “Tor Vergata”, former President of ISTAT and Minister of Labor and Social Policy)
- **Fulvio Guarneri** (Chairman & CEO, Unilever Italy Holdings)
- **Matteo Marini** (President, ABB)
- **Leonardo Salcerini** (Managing Director, Toyota Material Handling)

We would like to thank the following individuals for their contribution to the research and meetings of the Advisory Board:

- **Eliana Baruffi** (Corporate Communications Manager, ABB)
- **Gianfranco Chimirri** (HR & Communication Director, Unilever)
- **Vincenzo de Luca** (Director General for the Promotion of the Italian Economic System – Italian Ministry of Foreign Affairs and International Cooperation)
- **Nicola Lener** (Principal Director for Internationalization, Directorate General for the Promotion of the Italian Economic System, Italian Ministry of Foreign Affairs and International Cooperation)
- **Chiara Ratzenberger** (Deputy, Investment Attraction Office, Italian Ministry of Foreign Affairs and International Cooperation)
- **Michela Romani** (Communication Specialist, Unilever)
- **Marco Simoni** (Economist, former Economic Advisor, Palazzo Chigi)
- **Francesco Varriale** (Head, Investment Attraction Office, Italian Ministry of Foreign Affairs and International Cooperation)

The operational aspects of the project are overseen by The European House – Ambrosetti Working Group, comprised of: **Massimiliano Sartori, Cetti Lauteta, Benedetta Brioschi, Diego Begnozzi, Fabiola Gnocchi, Silvia Caliaro.**

Given the nature and the goals of the Global Attractiveness Index initiative, from the very first year, The European House – Ambrosetti initiated collaboration with the **Joint Research Centre (JRC)** of the European Commission which, continuing and broadening what was already done in the first year of the initiative, performed:

- a detailed analysis of the sensitivity and solidity of the indicators and the Key Performance Indicators (KPIs) selected to create the Global Attractiveness Index;
- an independent statistical evaluation of the methodological approach of the Index and its solidity, including a back-calculation for the last five years;
- preparation of the independent statistical audit.

Please refer to part 3 of this introduction for a more in-depth discussion of the collaboration with the Joint Research Center. We would like to thank **Michaela Saisana**, Project Leader of the Competence Centre on Composite Indicators & Scoreboards (COIN) of the JRC for her active and efficient collaboration and contribution in the methodological and statistical assessment of the Global Attractiveness Index.



Figure 3. Participants in the Global Attractiveness Index 2018. *Source: The European House – Ambrosetti, 2018*

2. MISSION, CONCEPT AND METHODOLOGY OF THE GLOBAL ATTRACTIVENESS INDEX PROJECT

In today's increasingly dynamic and globalized world with its extensive economic, political and social discontinuity factors, the quality of a country or region (by which is meant the efficiency and efficacy of its organization and its functioning) represents a fundamental element of growth.

A **country's attractiveness** can be seen in the dual sense of attracting and keeping talent, capital and productive/competitive assets (know-how, technologies, etc.), while fostering the consolidation and birth of productive activity and, more generally, stimulating processes of economic and social development.

From this standpoint, it can be said that the localization choices of companies and individuals can have a positive or negative effect and, as a result, can impact the overall level of “quality” resources available to a given area. An area attracts investment or resources only if it offers “something” that is competitive.

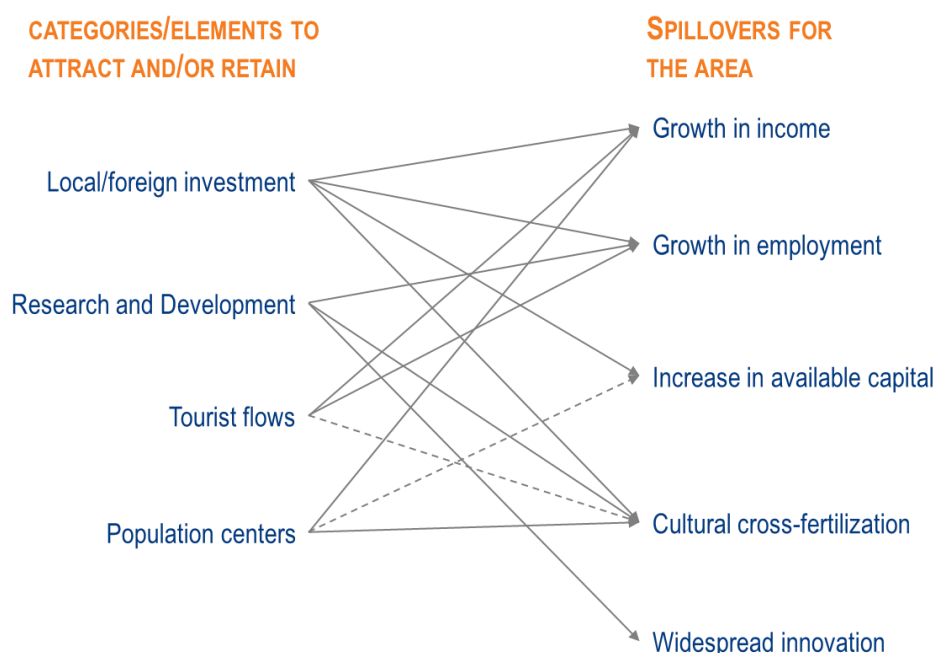


Figure 4. Elements to attract and/or retain, and their impact on the development and competitiveness of a territorial system. Source: *The European House – Ambrosetti data elaboration, 2018*

For both developed and emerging countries, the attractiveness of an economic system has become even more relevant following globalization, which has facilitated and accelerated the circulation of capital and the inclusion of emerging areas of the world in international consumption and production circuits.

Recent years have seen massive international flows of Foreign Direct Investment (+**256%** from 2000 to 2016)⁴ which, combined with technological innovation and the development of social and educational systems, has allowed for highly-accelerated global economic growth (from 1960 to the present, +**3.5%** average annual growth, +**1.9%** on the basis of per capita GDP).⁵ Today, the competition among geographical territories has broadened, becoming more intense and involving areas that until a few decades ago were not considered to be attractive destinations. Consider, for example, ASEAN countries which, if taken together as a single country, would be the third largest economy in Asia, the sixth largest in the

⁴ Most recent figures available. Source: UNCTAD, 2018.

⁵ Source: The World Bank, 2018.

world (fourth within the coming decade) and the second largest in terms of attracting Foreign Direct Investment.⁶

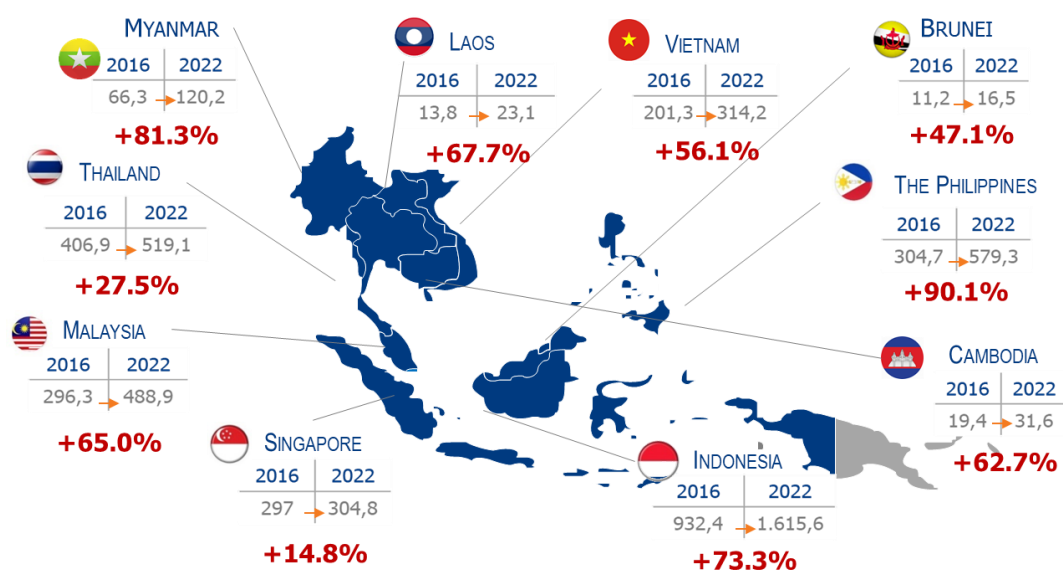


Figure 5. Gross Domestic Product of ASEAN countries, in billions of dollars, 2016 and 2022e. Source: *The European House – Ambrosetti elaboration of “High Level Dialogue on ASEAN Italy Economic Relations”, 2018*

The emergence of new areas of attraction can also be seen in recent statistics involving tourist arrivals. While in 2000 49% of total tourist arrivals on a global level saw Europe as the protagonist, it is estimated that by 2030, nearly 60% of tourist flows will be towards emerging economies.

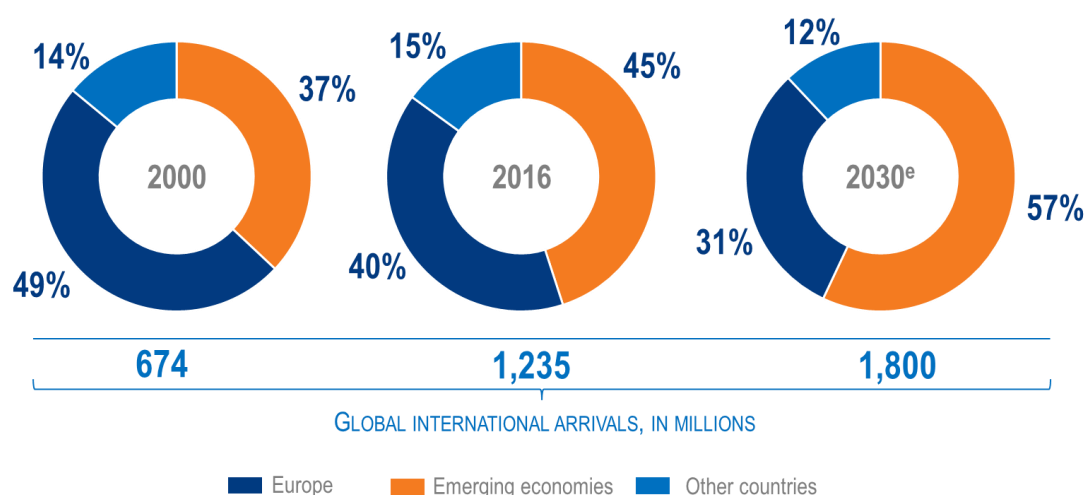


Figure 6. Share of international arrivals by area of destination, in % of the total, comparison of 2000, 2016 and 2030e. Source: *The European House – Ambrosetti elaboration of WTO and IMF data, 2018*

⁶ Source: The European House – Ambrosetti elaboration of “High Level Dialogue on ASEAN Italy Economic Relations” data, 2018.

Within the context described above, international rankings have taken on increasing weight in terms of their media visibility and ability to influence the localization choices of companies, people and capital.

In multinational headquarters, country-rankings are utilized as an overall information tool (but obviously not the only one) to guide investment choices. International rankings are also being increasingly considered an important tool for providing areas of attention and intervention for public policy and as a means for positioning a country in the eyes of the business community and international public opinion.

At the same time, hand-in-hand with the propagation of these rankings and their relevancy, a growing debate has also arisen over **how representative they actually are**. In particular, a number of observers and experts have noted some evident discrepancies between the actual situation of a country and its economy and its relative position in international rankings.

Over the course of its activity, the Global Attractiveness Index initiative has studied over 100 indices—many of which overlap—both in terms of specific areas of study (corruption, freedom of the press, innovation, security, etc.), as well as over-all aspects of countries and their economies (competitiveness, pro-business environment, quality of life, etc.), in order to highlight their methodological approaches and glean information useful for managing country image.⁷

In light of these considerations, in 2016, The European House – Ambrosetti launched an international research initiative designed to make available to Italian and international decision-makers an **innovative country-index, the Global Attractiveness Index (GAI)**, that would offer a **representative snapshot of the attractiveness and sustainability of countries** and, as a result, provide reliable information to support system-oriented choices for growth and optimization of a pro-business environment.

A preview of the results of the first two years of work and the 2016 and 2017 GAI rankings were presented to the European and international political and business elite at, respectively, the 42nd and 43rd “*Intelligence on the World, Europe and Italy*” forum organized each year by The European House – Ambrosetti at Villa d’Este in Cernobbio.

In continuity with the project launched in 2016 and continued over 2017, and on the basis of the favorable feedback received, this initiative also proceeded this past year. Its objectives were to:

- a) strengthen the **Global Attractiveness Index statistical-economic model** to make it a reference tool in the decision-making process of businesses and policy-makers;

⁷ For additional information, please refer to the 2016 and 2017 Global Attractiveness Index reports (www.ambrosetti.eu).

- b) consolidate an **international platform for constructive discussion and reflection** on attractiveness and competitiveness of countries and regional areas that would involve key stakeholders in this process;
- c) produce information, awareness and guidelines **to stimulate improvement in the strategic management of attractiveness** and a pro-business image of countries and their economies throughout the world.

To meet these goals, the work over the course of 2018 has been organized into a series of activities that are interrelated via a **multi-level methodology** which includes opportunities for discussion, listening and awareness-raising, intelligence and analysis. Specifically:

- **regular meetings of the Advisory Board.** These meetings have offered opportunities to discuss current, priority issues connected with the spread and importance of international rankings and managing country image, using as a starting-point the personal expertise and experiences of each Advisory Board member and the research carried out by The European House – Ambrosetti Working Group;
- **private meetings with key stakeholders.** As part of the approach based on sharing experiences and reflection on the issues involved, selected Italian and international representatives of the governmental, political and business spheres were met with or invited to take part in Advisory Board meetings;
- drawing up the annual **“Global Attractiveness Index—The thermometer of a country’s attractiveness”**. The results of the work carried out during this third year are summarized in this Report which, in the spirit of making a positive contribution, is designed to offer the Italian and international business community and policy-makers a tool for orienting their decisions;
- **communication and discussion** of the Global Attractiveness Index. To contribute to improving awareness of this initiative and the model utilized, as well as its findings, a number of events to present and examine the initiative were organized in collaboration with European and international bodies and representatives (for example, presentation at the annual meeting of the ISPRA Joint Research Center, presentation at the Italian Embassy in Berlin as part of “The Italian Innovative Ecosystem” event and presentation of the Global Attractiveness Index to the Statistics and Data Directorate of the OECD, the Organisation for Economic Co-operation and Development).

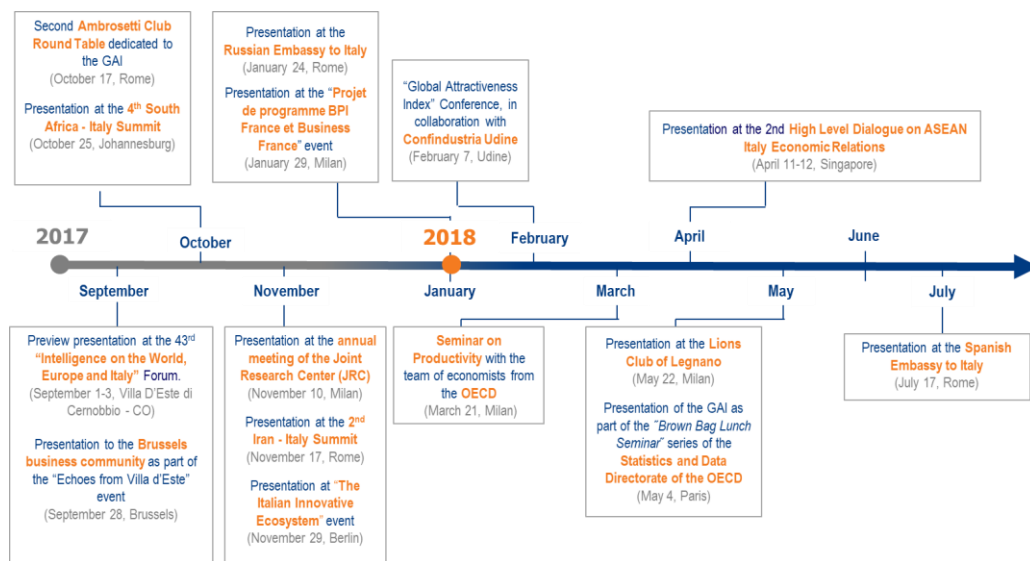


Figure 7. Some of the major events held to promote and establish the standing of the Global Attractiveness Index 2017-2018. *Source: The European House – Ambrosetti data elaboration, 2018*

Accounts were also created on the major social media channels (Twitter, YouTube, Facebook, Instagram and LinkedIn) to promote the exchange of information and discussion, together with the launching of a specially-designed communications campaign with the content of the Global Attractiveness Index report, using the hashtag **#italyisdifferent**.

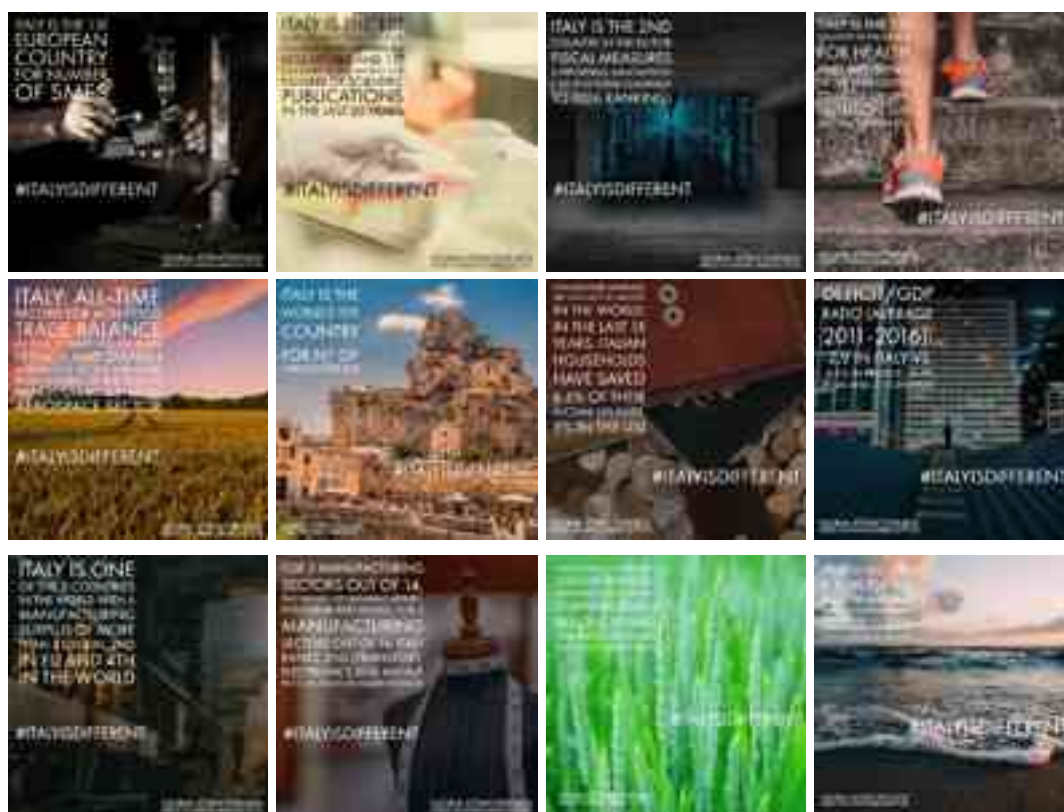


Figure 8. Some of the key messages and content in the #italyisdifferent campaign of the Global Attractiveness Index 2018. *Source: The European House – Ambrosetti, 2018*

A public-access **dedicated web page** (www.ambrosetti.eu/global-attractiveness-index) was also created with a full archive of data, analysis and information resulting from the research performed. Also created was a platform that maps the main investment initiatives in Italy to provide a reference source for journalists, analysts and companies to monitor the country's level of attractiveness. The database is updated on an on-going basis.

Finally, an issue of the Lettera Ambrosetti Club, the exclusive regular newsletter of The European House – Ambrosetti distributed to top management, government and the business community, is dedicated to the main GAI findings in 2018.

The results of the project, summarized in this Report, are being presented internationally in advance, as was done last year, during the 44th “*Intelligence on the World, Europe and Italy*” Forum organized by The European House – Ambrosetti (September 7, 8 and 9, 2018).

Following this event, the **annual Round Table** will be held in Rome (November 20, 2018) to discuss the results of GAI 2018 and its recommendations for optimizing the management of country-attractiveness. It represents an opportunity for business leaders and government and institutions to discuss from the standpoint of a shared sense of teamwork and to develop a common perspective on the issues involved.

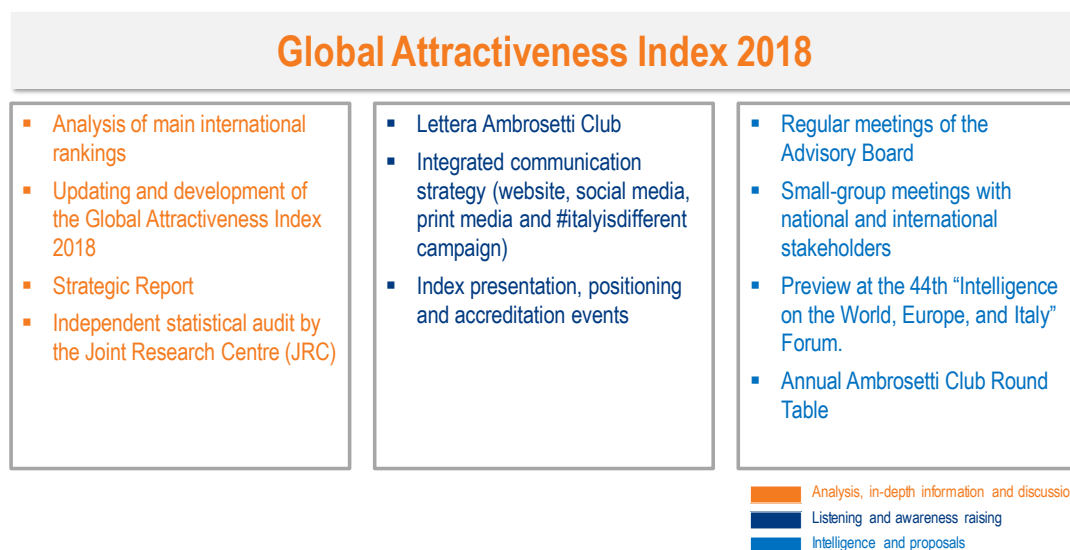


Figure 9. Global Attractiveness Index Platform *Source: The European House – Ambrosetti data elaboration, 2018*

3. INDEPENDENT STATISTICAL AUDIT OF THE EUROPEAN COMMISSION JOINT RESEARCH CENTRE



Given the nature and the goals of the Global Attractiveness Index initiative, The European House – Ambrosetti initiated collaboration with the Joint Research Centre (JRC) of ISPRA which, continuing and broadening what was already done in the first year of the initiative, performed:

- a detailed analysis of the sensitivity and solidity of the indicators and the Key Performance Indicators (KPIs) selected to create the GAI model;
- an independent statistical evaluation of the methodological approach of the Index and its solidity, including a back-calculation for the last five years;
- the preparation of a statistical audit that offers a detailed report of the sensitivity analyses performed by the JRC, the statistical solidity of the Key Performance Indicators (KPIs) examined, and the hypotheses utilized in constructing the Global Attractiveness Index.

The methodology developed during the first year (2016) and perfected during the second (2017), was further developed without modifying its defined intrinsic characteristics to render it a **flexible model** capable of best presenting and following the dynamic changes in the countries considered and their economies, as well as overcoming some of the limitations currently encountered in international databases (for example, data availability, comparability, etc.).

In addition, the quality of the GAI model is the result of an important basic choice: the Global Attractiveness Index was constructed by aiming for the optimum balance between the rigorous application of the principles of statistic solidity and theoretical and qualitative interpretation of the social-economic phenomena connected with the concept of attractiveness, and the ensuing choice of the various Key Performance Indicators.

Finally, the decision to favor quantitative variables, with the addition of a few Key Performance Indicators only partially survey-based (to avoid the problems encountered in other country indices), led to a consequent limiting of the perimeter of information available on an international level and basis of comparability among the various countries examined. Thus, the final choice of **144 countries that were mapped and classified**.

4. OUTPUTS OF THE 2018 REPORT

In summary, the outputs of the Global Attractiveness Index 2018 report are:

Conceptual Map

In continuity with the first two years, the principal findings of the 2018 report are summarized in a conceptual map that presents the characteristics, structure and methodological innovations of the Global Attractiveness Index 2018 and of its statistical model. Also presented is the ranking of the countries mapped, providing for each its overall positioning and related levels of dynamism and sustainability over the short- to mid-term for each geographical area considered.

Methodology and findings of the Global Attractiveness Index 2018

The detailed definition of the perimeter of the concept of “attractiveness” is the prerequisite for any tool used to measure it. Presented in this chapter is the proposal developed in the study and adopted in constructing the Global Attractiveness Index 2018.

The chapter contains the characteristics, structure and methodological innovations of the Global Attractiveness Index and its statistical model.

Finally, the GAI 2018 ranking of the 144 countries mapped is presented, providing for each its overall positioning and related levels of dynamism and sustainability over the short- to mid-term for each geographical area considered.

THE METHODOLOGY

AND RESULTS OF THE GLOBAL ATTRACTIVENESS INDEX 2018



1. THE PERIMETER OF ATTRACTIVENESS FOR THIS STUDY

The Global Attractiveness Index is an indicator that looks at the attractiveness of a country and its economic system as the **prerequisite and determining element of its ability to be competitive and develop**.

Attractiveness is the most important “symptom” of competitiveness: if a country is not competitive, it is not attractive. This is even truer within a context such as the current one in which the mobility of productive factors and scarce resources—both human and financial—is at its maximum and localization choices potentially involve the entire world thanks to the globalization of value chains and the spread of centers of production and consumer markets.

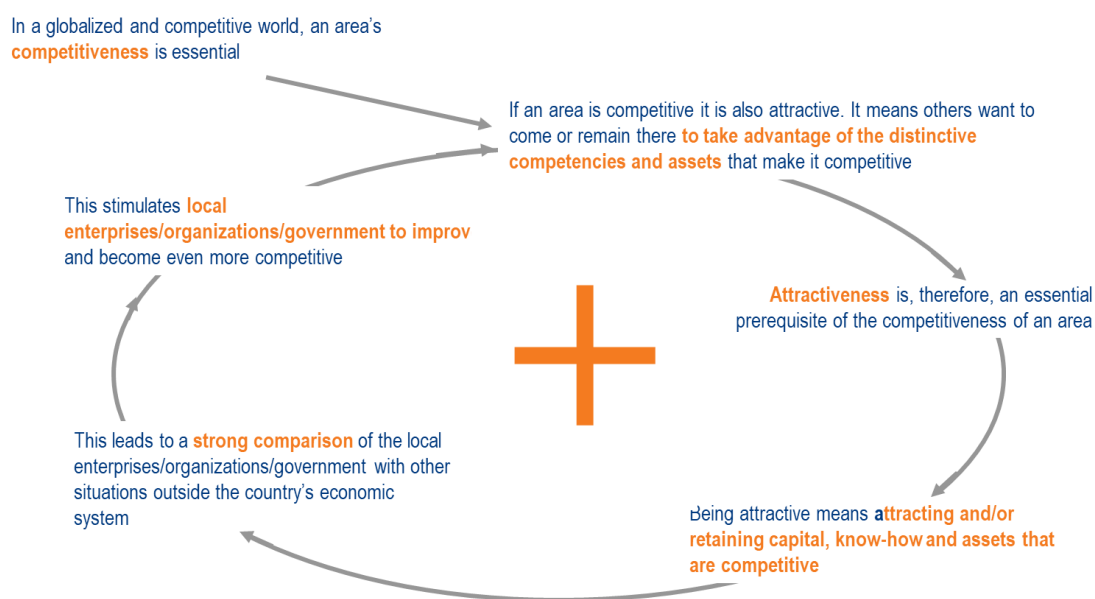


Figure 10. Virtuous cycle of attractiveness and competitive development. Source: *The European House - Ambrosetti data elaboration, 2018*

When we talk about the quality and strength of attractiveness of a country's economic system, we are also talking about the quality and sustainability of its development model and ability to take advantage of its resources: **its assets and distinctive competences**.⁸

The attractiveness of a country is, indeed, based on the resources it has available (either because they were pre-existent or because they were developed) and on the presence of players able to activate and exploit them, thus transforming the potential asset into value for those operating within that area.

From this perspective, attractiveness is a function of “hard” (infrastructure, productive assets, etc.) and “soft” (human resources, knowledge, social fabric, etc.) aspects that characterize an area, and the quality and efficiency of the relationships

⁸ Assets are everything a territorial system possesses, and which has value for those working there. A competency involves the ability of an area to do “something” and it becomes distinctive when that area does it better than its competitors.

and organizational structures that connect these elements and allow them to operate by feeding productive activity and generating economic and social growth.

Attractiveness, therefore, is measurable, and the elements (“key factors”) that determine the overall performance on a nationwide level can be identified.

The intensification of international competition in attracting human and financial resources implies that, while considering two or more countries, it is necessary to consider comparative advantages and disadvantages, such as fiscal system, infrastructures, education system, innovation, reputation, law, etc. From a business point of view, the choice of investing in a country – as well as the decision to remain – is influenced by specific key factors, as pointed out in the following figure.

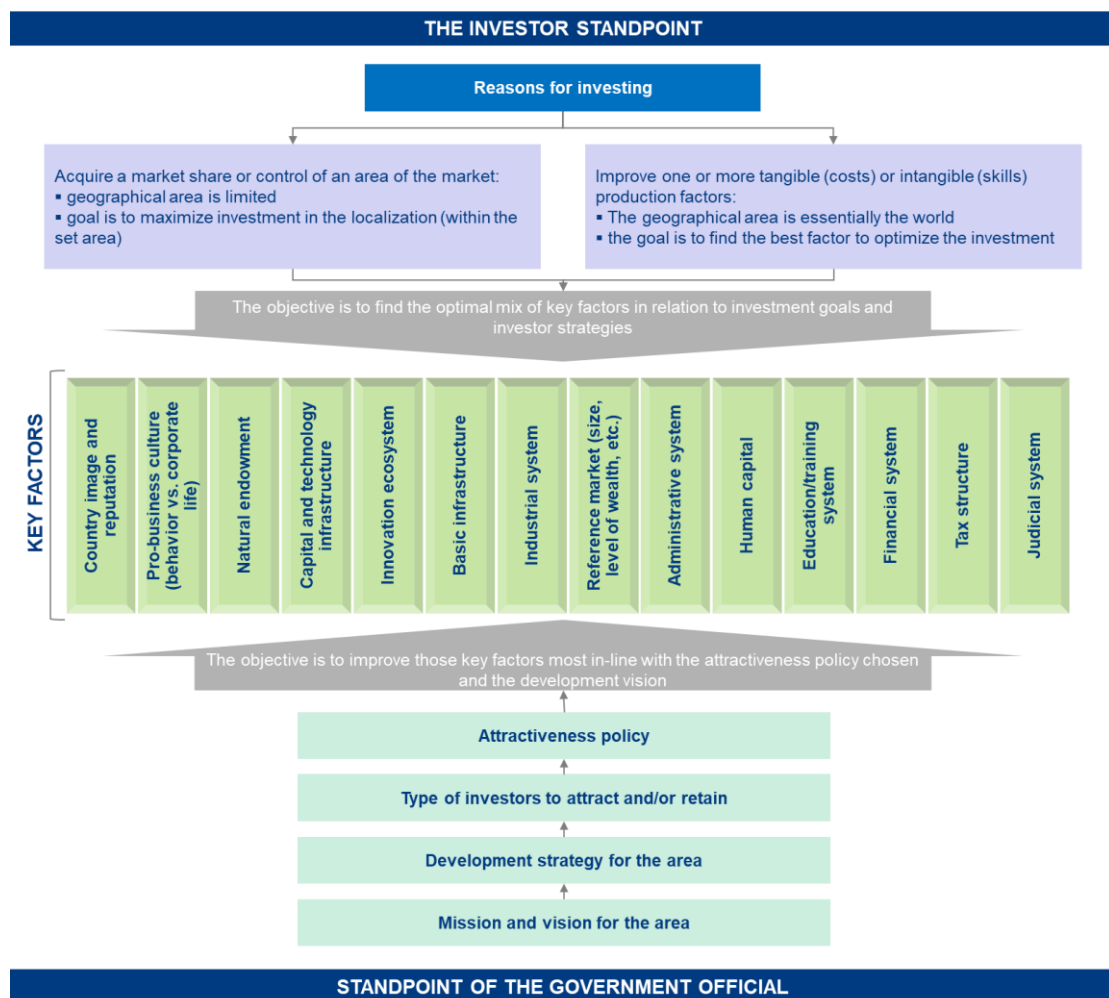


Figure 11. The decisional process of investing and the attractivity key factors. *Source: The European House - Ambrosetti data elaboration, 2018*

In addition, attractiveness does not exclusively concern quantitative parameters, but also the perceptions and the idea a country projects of itself. In other words, the **image and positioning in the “mental map”** of those potentially interested in an area (investors, businesses, talent, tourists, etc.) influence localization choices, and how they are managed must be an integral part of an effective territorial competitive strategy.

The importance of a **strategic management of international ranking and country-image** has been deepened in the previous GAI reports, and it will not be discussed in this chapter. However, it is important to remark that international rankings of competitiveness and attractiveness have acquired an important role in the localization decisions of firms, influencing the perception of the business community.

In the Action Plan for Italy – Appendix of this report – the issue of ranking governance is resumed, in order to maintain a high focalization on one of the fundamental points of the country's government action: the structured management at the national level for the management of the country rankings and the related Key Performance Indicators, giving operation to the Control Room for the control of the International Indices and the development of the "image-country" (the characterizing elements) to be communicated .

2. THE CHARACTERISTICS AND THE STRUCTURE OF GLOBAL ATTRACTIVENESS INDEX

On the basis of these observations and in order to develop the Global Attractiveness Index, since the first edition, the perimeter of attractiveness has been defined **mainly of an economic nature**, with a resulting focus on factors (the Key Performance Indicators - KPIs, discussed below) that have an impact on and influence the country context, that can be traced back to two areas of attractiveness:

- *Internal*: the ability to retain resources already present in the area;
- *External*: the ability to attract resources from outside.

From this standpoint, a further methodological choice made in identifying the KPIs of the Global Attractiveness Index was that of considering the characteristics of a Country's economic system as an interpretive reference model for the four traditional forms of capital that are representative of the assets and distinctive competencies mentioned above:

- *Physical Capital*: comprised of resources other than human, such as tangible and production-related, sales and distribution of goods
- *Natural Capital*: all the assets and natural resources comprised of production-related raw materials and environmental services inputs⁹
- *Human Capital*: a form of productive wealth as reflected in labor, skills and knowledge
- *Social Capital*: regulatory measures, values and agreements that facilitate collaboration within and among different groups.¹⁰

⁹ Source: Glossary of Environment Statistics, Studies in Methods, Series F, No. 67, United Nations, New York, 1997.

¹⁰ Source: "The Well-Being of Nations: The Role of Human and Social Capital", OECD, 2001.

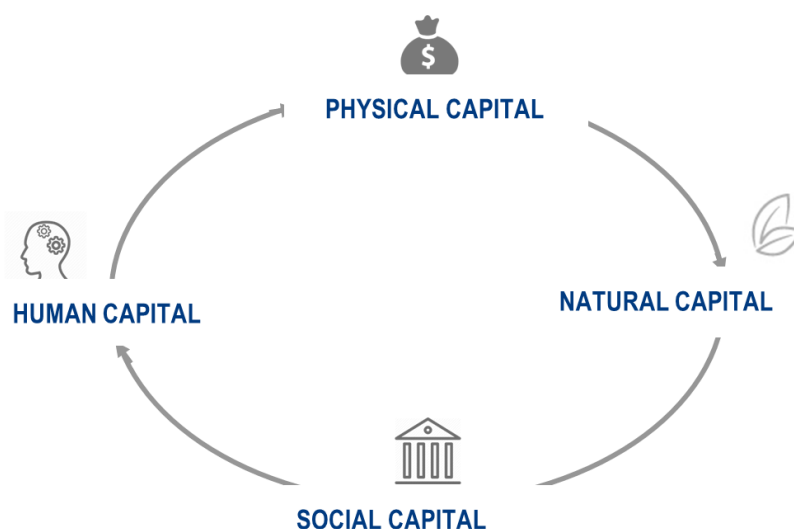


Figure 12. The four forms of capital as the theoretical basis for the development of the Global Attractiveness Index model. Source: *The European House - Ambrosetti data elaboration, 2018*

These four forms of capital were adopted as the base reference because the macro-aspects on which a country is actually evaluated can be reduced to them: the more they represent value and/or are distinctive, the more a country will have the characteristics required to be attractive.

The development of the concept and working model of the Global Attractiveness Index, since its first development, were guided by the search for the best and most complete response to three basic questions in evaluating the level of attractiveness of a country's economic system.

The point-of-view adopted was that of a given subject (investor, business, talent, etc.) which, looking for the best conditions to make a localization choice, asks three main questions:

- *What is the current situation in the country?*
- *What changes are currently underway internally and what are the dynamics?*
- *What is the degree of sustainability of the current situation over the short-to-medium term?*

The answers to these three questions make it possible to delineate a complete profile of the conditions of a country's economic system according to three aspects:

- **static** (current situation);
- **dynamic** (short-to-medium term trend);
- **perspective** (potential future evolution).

This is a **distinctive element of the Global Attractiveness Index model** compared with the most widely-used Country rankings today which tend to favor a static view of the ranking attained, without providing insight into the other two elements—dynamic and prospective—which are equally important for an in-depth evaluation of the situation of a given area. The Global Attractiveness Index does not simply define a ranking referred to a point in time, but also captures the dynamism

of the systems and their sustainability over time. Therefore GAI allows us to read the present, but also to try to read the future by intervening in those factors that can make a country more attractive. Analysis of the answers to these three questions led to the identification of three additional aspects that are more operations and function-related in the creation of the Global Attractiveness Index. They are:

ASPECT 1. *When is an area attractive?*

Following discussion within the Advisory Board and reference to the most authoritative published materials, four attributes of “attractiveness” were established:

- *Openness*: an area’s approach to promoting the circulation of economic, human and business resources, both internally and externally.
- *Innovation*: organization of the country’s ecosystem (research network, public institutions, businesses, financial system) to promote, in an ongoing and concrete way, scientific and technological progress, in terms of advancing research, applications and market spin-offs for the general public and businesses.
- *Efficiency*: the ability of organizational and function-related structures to guarantee proper functioning (and quality) of capital markets, the labor market, services and government.
- *Resources*: in the broadest sense, of a country that possesses high-quality assets that are distinctive and not easily replicable (therefore, capable of being sources of competitive advantage) and a strong position within the mental map of the business community and national and international public opinion.

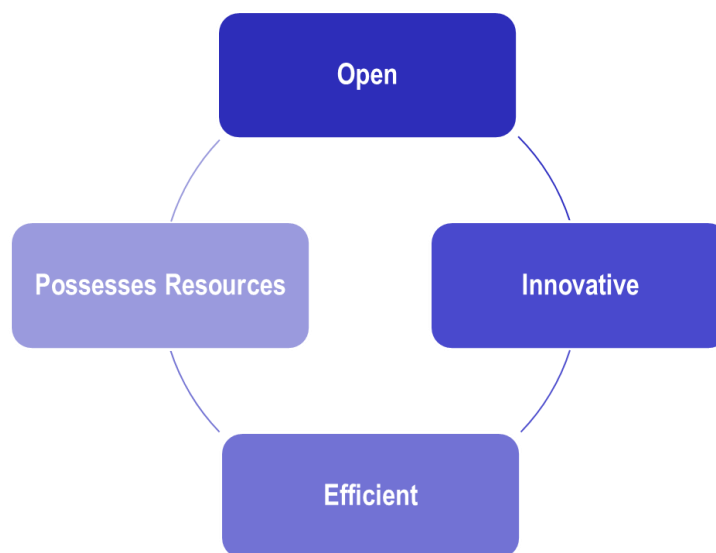


Figure 13. Attributes of the “Attractiveness” of a country’s economic system *Source: The European House - Ambrosetti data elaboration, 2018*

ASPECT 2. *When is an area dynamic?*

A “dynamic” Country is defined as one with a positive variation in the four attractiveness attributes. It was set to focus on a **medium-term structural**

perspective and, therefore, a three-year time frame was chosen to evaluate the variations in the different KPIs.

In other words, an area whose parameters of Openness, Innovation, Efficiency and Resources are on the rise (in absolute value terms) in the preceding three years, is considered non-static, having intrinsic dynamism that will lead it, year-after-year to be increasingly attractive.

One point to be considered is the comparability of the different Country economic systems from the standpoint of the starting situation. A Country whose performance levels are already high will tend to have a lower level of dynamism than others still undergoing development. This should not be interpreted solely negatively, but rather that this area is very close to the optimal situation that can be reached for a given aspect of attractiveness.

The Global Attractiveness Index treats this information (see the more detailed discussion of the overall model below) as an **additional indication** to be interpreted together with two other elements: the current situation and prospective sustainability of the ranking attained. This way, the model does not distort the information by including it in the current attractiveness assessment, as is the case in some of today's most popular Country rankings. In addition, the dynamism of homogeneous clusters of Countries can be compared, for example: advanced economies, developing countries, etc.

ASPECT 3. *When is an area sustainable?*

The attractiveness of a Country must emerge as being sustainable. For this to occur—and according to the methodological assumptions adopted in this project—an area must:

- guarantee cross-generational equality and equal opportunity;
- be stable and predictable (guaranteeing certainty in regulations and the law, etc.);
- be able to react to external shocks and crises (whether political, social or environmental);
- have high standards of quality of life and the environment (for example, air quality, on a local level, services, etc.).

Sustainability should not be seen as a given condition, but as an **ongoing process** that draws on the need to bring together the four basic aspects mentioned above which are closely interrelated: the environment, economy, society and government.

Regarding this, two attributes of sustainability were identified that are antithetical, but which work together conceptually:

- *Resilience*: a resilient area is able to react and absorb shocks and/or periods of crisis or uncertainty by adjusting positively to change and adapting its structures and governmental, social and economic models. Therefore, high levels of resilience indicate a positive attribute of the economic system of the Country being examined and are indicated with a “+” sign in the Global Attractiveness Index.

- **Vulnerability:** on the other hand, because of its intrinsic economic, social and organizational characteristics, a vulnerable area is exposed to negative impacts caused by harmful situations and events (both internal and external). Unlike resilience, high levels of vulnerability are a negative attribute for a Country's economic system and are therefore marked with a “-” sign in the Global Attractiveness Index.



Figure 14. Attributes of the “Sustainability” of a country's economic system. *Source: The European House - Ambrosetti data elaboration, 2018*

Given the points above, the Global Attractiveness Index is a **multi-dimensional analytical model of the attractiveness of a Country's economic system**, and is comprised of:

- a Positioning Index (PI);
- a Dynamism Index (DI);
- a Sustainability Index (SI).

The Positioning Index measures the level of attractiveness of a Country **in comparison to other Countries**, providing, therefore, an overall ranking within which each Country is positioned according to the score it received. The PI is based on the four Attractiveness attributes outlined above: Openness, Innovation, Efficiency and Resources.

Complementing and filling out the Positioning Index are the Dynamism Index, that measures the variation in the level of attractiveness provided by the PI (and its four specific attributes), and the Sustainability Index, that provides a quantitative indication of the extent to which a given area is actually sustainable.

An overall picture of the Global Attractiveness Index model is presented below.

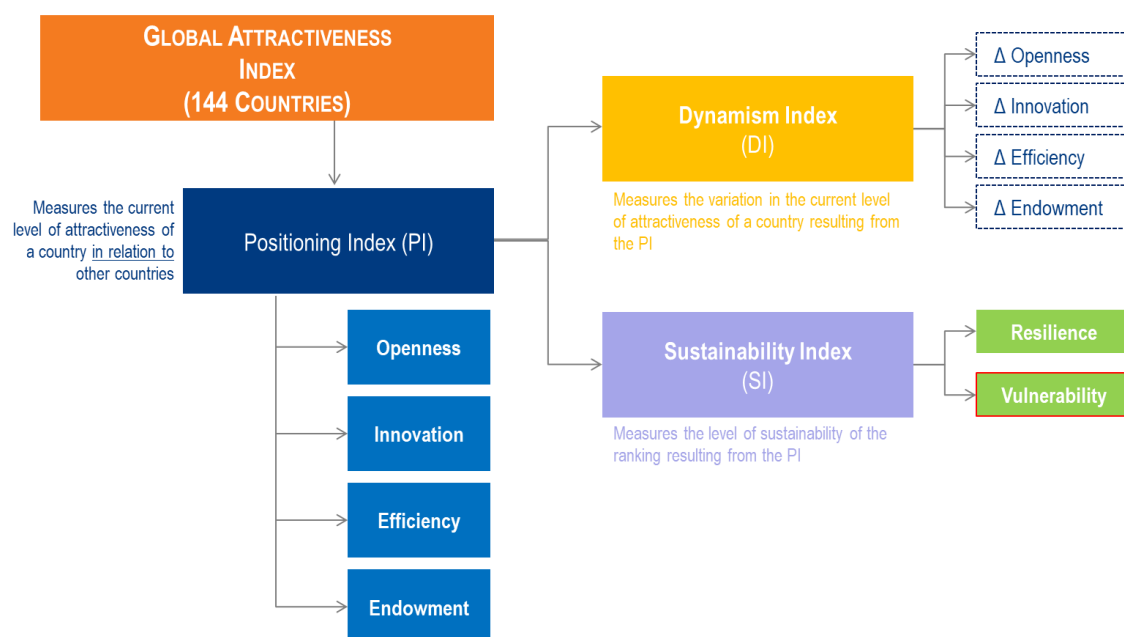


Figure 15. Structure of the Global Attractiveness Index. *Source: The European House - Ambrosetti data elaboration, 2018*

In the process of developing the structure of the Global Attractiveness Index, it was decided to use the following **guideline criteria** as its distinctive features:

1. **Replicability:** the Global Attractiveness Index is designed to be updated on an annual basis and, therefore, makes use of variables (reference to initial raw data) that are **gathered regularly and on a continuous basis over time** by the major and most authoritative bodies internationally.
2. **Objectivity:** the majority of Country rankings available to-date make widespread use of qualitative surveys which often are not significant in terms of the extent to which they are representative of the survey sample, since based on perception questionnaires¹¹. To overcome this problem, the Global Attractiveness Index is based primarily on **objective and quantitative data from certified sources**, and only makes use of surveys peripherally and after verification of the survey sample and its relevance to the phenomenon being examined.
3. **Solidity:** to guarantee **statistical consistency**, variables representative of the phenomena being measured (“proxies”) were chosen, while at the same time evaluating the level of association, so that they are neither redundant nor significantly correlated, which would render the entire Index unreliable.
4. **Significance:** to avoid many of the most common problems associated with the Country rankings currently available, and in particular the lack of objectivity and representativeness of the data and information they reflect, for the Global Attractiveness Index, within the limits of the availability of the KPIs taken into

¹¹ For further information, refer to the contents of the 2016 and 2017 editions of the Global Attractiveness Index (www.ambrosetti.eu).

consideration, **results (output)**, as opposed to “efforts” (*input*), were given priority¹².

Emphasis was also placed on those KPIs that do not have elements of correlation with given organizational/cultural/procedural characteristics of the Country since these are potentially linked to methodological bias (see Chapter 1)¹³.

The KPIs used in building the Index are given in the figure below.

DIMENSION	MACRO-AREAS	KPI 2018
Attractiveness	Openness	<ul style="list-style-type: none"> ▪ (Foreign Direct Investment flows into the country IN + the country's investment abroad OUT), compared with world total (2016) ▪ (Export + Import), compared with world total (2016) ▪ (No. foreign tourists IN + No. national tourists abroad OUT), compared with population (2016) ▪ Foreign university students, compared with youth population (2016) ▪ Net number of migrants, compared with population (2017)
	Innovation	<ul style="list-style-type: none"> ▪ Employed in high-technology sectors, compared with employed (2017) ▪ Exports of high-technology goods, compared with world total (2016) ▪ ICT Development Index (2017) ▪ Number of scientific publications, compared with world total (2017) ▪ Internet users, % of population (2016)
	Efficiency	<ul style="list-style-type: none"> ▪ Unemployment level (2017) ▪ Logistics Performance Index (2016) ▪ Total productivity of factors (2016) ▪ Rule of Law Index (2017) ▪ Total Tax Rate (2017)
	Endowment	<ul style="list-style-type: none"> ▪ Gross Domestic Product (GDP), compared with world total (2016) ▪ Gross National Product, (GNP), per capita (2016) ▪ Gross Fixed Investment, compared with GDP (2016) ▪ Natural Resource Index (2015) ▪ College graduates, compared with world total (2016) ▪ Students' skills according to PISA test score (2015)
Dynamism	<i>3-year variation of KPIs indicated above for the four Attractiveness macro-areas</i>	
Sustainability	Resilience	<ul style="list-style-type: none"> ▪ Human Development Index (2015) ▪ Global Peace Index (2017) ▪ Life expectancy at birth (2016) ▪ World Giving Index (2017) ▪ Avg. years of school attendance (2016)
	Vulnerability	<ul style="list-style-type: none"> ▪ Debt/GDP (2016) ▪ Inflation rate (2016) ▪ Market concentration index (2016) ▪ People affected by natural disasters (last 3 years), per 1,000

¹² For example, expenditure for education and Research & Development are input variables that are not necessarily representative of the final outcome (level of competence within the population, innovative performance, etc.).

¹³ For example, the decision not to include patents as an innovation KPI was the result of the awareness that the propensity to patent tends to be linked to specific aspects of the country involved (cultural approach, business practices, types of production, etc.). For this reason, the indicator might not be fully representative of the “innovation” phenomenon and provide a distorted picture of the situation.

		people (2016)
		▪ Number of suicides, % total national population (2016)
		▪ Population exposed to risk of poverty, % total national population (2016)

Figure 16. KPI structure of the Global Attractiveness Index and reference year (most recent available). *Source: The European House - Ambrosetti data elaboration, 2018*

With reference to the table above and with respect to the 2017's Global Attractiveness Index model, two more KPIs were introduced in the updated edition:

- The KPI “Net number of migrants” has been modified, privileging a more updated source (United Nations, Population Division, Department of Economic and Social Affairs);
- The weighting of KPI “Inflation rate” has been reversed. We consider as “worst” a country with high inflation rate.

Based on the analysis of Correlation and Solidity carried out, both these two modification coherently complete the statistical model of the Global Attractiveness Index 2018 and contribute to represent more precisely – thanks to the information added – phenomena which characterize the respective attributes.

All the indices mentioned above—Positioning, Dynamism and Sustainability—are developed using a uniform method and designed to be simple, clear and straightforward in order to minimize the possibility of introducing errors into the model. The KPIs selected for each attribute of the Positioning, Dynamism and Sustainability Indices were selected on the basis of two criteria:

- to be **representative proxies** of the phenomenon to be measured;
- to be limited to 5 KPIs for each attribute.

This methodological choice was dictated by the desire to limit as much as possible the phenomenon of variables that are too dependent on each other and therefore distort the reliability of the Index overall, as well as avoiding including KPIs that do not contain relevant information.

One of the criteria on which the selection of KPIs was based was also that they should be as global as possible. The analysis and findings that emerge from the Global Attractiveness Index actually involve 144 countries, approximately **93% of the population** and **99% of Gross Domestic Product** (in US\$) worldwide.

A further element adopted in the methodology is that the KPIs in the Positioning (PI), Dynamism (DI) and Sustainability (SI) indices are all expressed in a **relative scale to make them comparable among the different Countries**.

Specifically, two different modalities of relativization were adopted, involving two other criteria:

- *External*: for those KPIs that express magnitudes related to the attractiveness of a Country in relation to others, data will be normalized in relation to the global share of magnitude that it has throughout the world (e.g., the “market share” based on the world total).

- *Internal*: the KPIs focused specifically on aspects of internal attractiveness are normalized on the basis of magnitudes of the specific Country for which they are calculated (e.g., population, GDP, etc.).

In order to validate the process of updating and inserting KPIs, an **independent statistical audit was carried out by the Joint Research Centre (JRC)** of the European Commission that was aimed at validating from a technical and methodological standpoint the individual KPIs and the solidity of the structure of the Global Attractiveness Index

From the standpoint of building the individual indices (PI, DI and SI), for each KPI, the most attractive (or dynamic, or sustainable) country was given a **score of 100** (maximum), while the least attractive (or dynamic, or sustainable) country was given a **score of 1** (minimum). The remaining countries were assigned scores between 1 and 100¹⁴. Then, for each attribute, the arithmetic mean among its KPIs was calculated using an **equally-weighted** approach. This further choice—the decision not to use differentiated weights—was dictated by the desire not to insert subjective evaluations into the Global Attractiveness Index, as occurs when choosing weights.

3. 2018 RANKING OF THE GLOBAL ATTRACTIVENESS INDEX

Following the path of the previous editions, in the third release of the Global Attractiveness Index the time series of the 144 Countries of the past 8 years has been reconstructed. Concerning this, it is important to remind that, in order to correctly calculate composed Indexes, data must be technically comparable and always detected with the same criteria and in the same conditions.

In case of a modification of data's collection criteria or if it happens that old and new time series are incomparable, it is necessary to make data comparable, backwards reconstructing time series with new methods. This requirements make imperative the constant update of all-time series of the Global Attractiveness Index, which refers to variables with periodic collection of data and with continuously updated time series by main and more recognised international institutes. Considering that these institutions review time series on a yearly basis, in order to take into account both modification regarding data-collection methods and updates of estimated values with real ones, the GAI's *database* is coherently updated from 2007 to 2017 (last data available).

Simultaneously the Global Attractiveness Index is **backward calculated** and with reference to the past 6 years. The backwards calculation is an important **development of the Global Attractiveness Index** which allow to take into account modifications connected to the update and adjustment of time series generated by international institutes and, from a different point of view, allows the comparison during the time of KPIs and Positioning Index (PI) for every Country,

¹⁴ Depending on their type, KPIs can be considered to be positive (the higher the value, the higher the score received) or negative (the higher the value, the lower the score received).

offering a more representative picture of progress conquered by different economies during years.

On the basis of new time series and the backwards-calculated Index, the ranking of the 144 Countries mapped in the Global Attractiveness Index results as in the figures below. The countries with a low data coverage (less than or equal to 64%) are shown in gray. The countries with reduced coverage have been maintained in the Global Attractiveness Index, but - for appropriate information - the potential weakness of the database is indicated.

	GAI Rank 2018	GAI Score 2018	GAI Rank 2017	GAI Score 2017	Dynamicity 2018	Sustainability 2018	
UNITED STATES	1	100.0	1	100.0			HIGH
GERMANY	2	91.9	2	92.8			
JAPAN	3	81.9	3	87.0			MEDIUM
UNITED KINGDOM	4	80.9	8	78.3			
SINGAPORE	5	85.6	4	85.7			LOW
CHINA	6	83.7	5	84.7			
FRANCE	7	83.1	7	80.7			
CANADA	8	81.8	6	81.8			
AUSTRALIA	9	77.7	10	74.8			
KOREA REP.	10	77.6	11	74.1			
NETHERLANDS	11	74.8	9	75.2			
HONG KONG	12	72.2	13	71.4			
SWITZERLAND	13	68.3	12	72.0			
AUSTRIA	14	63.9	14	65.4			
BELGIUM	15	62.7	16	62.2			
ITALY	16	62.0	17	61.8			
SWEDEN	17	61.9	22	59.7			
IRELAND	18	61.1	15	63.0			
LUXEMBOURG	19	60.5	23	59.3			
ICELAND	20	60.4	18	60.5			
NORWAY	21	60.2	19	59.9			
SPAIN	22	59.6	24	59.2			
DENMARK	23	58.8	21	59.8			
NEW ZEALAND	24	57.1	20	59.8			
UNITED ARAB EMIRATES	25	56.0	25	57.0			
CZECH REPUBLIC	26	54.7	26	56.7			
INDIA	27	54.4	29	54.5			
FINLAND	28	53.8	30	53.7			
RUSSIAN FEDERATION	29	52.8	27	56.4			
ESTONIA	30	51.2	34	50.3			
POLAND	31	50.9	33	50.3			
BAHRAIN	32	50.6	28	55.8			
MALAYSIA	33	50.2	36	48.4			
BRAZIL	34	49.9	31	53.4			
ISRAEL	35	49.7	35	50.5			
SLOVENIA	36	48.1	37	46.6			

Figure 17. Global Attractiveness Index 2018, countries ranked 1 to 36. Source: The European House - Ambrosetti data elaboration, 2018

	GAI Rank 2018	GAI Score 2018	GAI Rank 2017	GAI Score 2017	Dynamics 2018	Sustainability 2018	
SLOVAK REPUBLIC	37	46.1	39	46.1			HIGH
HUNGARY	38	45.7	38	46.5			
SAUDI ARABIA	39	45.0	40	45.6			MEDIUM
KUWAIT	40	43.9	41	45.3			
MEXICO	41	42.8	42	45.3			
PORTUGAL	42	42.0	44	41.2			
MALTA	43	41.8	43	44.4			
IRAN	44	41.8	59	34.3			
QATAR	45	40.6	32	52.8			
LATVIA	46	37.7	45	40.6			
CHILE	47	37.6	50	38.9			
ARGENTINA	48	37.2	46	40.1			
TURKEY	49	37.1	49	38.1			
THAILAND	50	37.0	52	37.3			
ROMANIA	51	36.2	53	35.9			
PUERTO RICO	52	36.1	57	34.6			
GREECE	53	36.0	51	37.8			
SURINAME	54	35.3	47	40.1			
PANAMA	55	34.6	64	33.7			
LITHUANIA	56	34.3	54	35.7			
INDONESIA	57	34.1	61	34.2			
CROATIA	58	33.9	56	34.8			
URUGUAY	59	33.8	55	35.0			
CYPRUS	60	33.4	58	34.7			
COLOMBIA	61	33.3	62	34.1			
UKRAINE	62	33.2	74	28.4			
VIETNAM	63	32.9	67	32.6			
PHILIPPINES	64	32.7	72	30.2			
KAZAKHSTAN	65	32.6	66	33.4			
COSTA RICA	66	32.2	65	33.5			
BHUTAN	67	30.7	68	31.8			
OMAN	68	30.1	48	39.7			
ALGERIA	69	29.5	73	29.3			
LEBANON	70	29.5	60	34.2			
BULGARIA	71	29.1	70	30.4			
PERU	72	28.8	71	30.4			

Figure 18. Global Attractiveness Index 2018, countries ranked 37 to 72. Source: The European House - Ambrosetti data elaboration, 2018

	GAI Rank 2018	GAI Score 2018	GAI Rank 2017	GAI Score 2017	Dynamics 2018	Sustainability 2018	
JORDAN	73	26.7	75	26.0			HIGH
AZERBAIJAN	74	26.6	69	31.1			
MOLDOVA	75	26.4	79	26.7			MEDIUM
VENEZUELA	76	26.1	63	34.1			
GEORGIA	77	26.0	76	27.1			LOW
TRINIDAD AND TOBAGO	78	25.9	64	24.9			
SERBIA	79	25.0	77	26.9			CRITICAL
DOMINICAN REPUBLIC	80	24.7	83	25.4			
CAMBODIA	81	24.6	86	24.1			
SOUTH AFRICA	82	24.2	80	26.6			
GUYANA	83	24.2	85	24.8			
MOROCCO	84	24.0	78	28.7			
ALBANIA	85	23.8	82	25.9			
EGYPT	86	23.7	63	22.7			
ECUADOR	87	22.9	87	24.4			
BOLIVIA	88	22.8	81	26.1			
MONTENEGRO	89	22.2	92	22.8			
COTE D'IVOIRE	90	21.9	98	21.0			
MAURITIUS	91	21.3	94	21.5			
SRILANKA	92	21.2	91	22.8			
TUNISIA	93	21.0	90	22.8			
PARAGUAY	94	20.9	96	21.4			
BANGLADESH	95	20.5	112	18.0			
CABO VERDE	96	19.9	99	20.8			
NICARAGUA	97	19.8	108	18.9			
GHANA	98	19.5	86	24.4			
KYRGYZ REPUBLIC	99	19.3	97	21.2			
MACEDONIA	100	19.3	104	20.1			
JAMAICA	101	19.1	95	21.4			
ARMENIA	102	18.1	89	22.9			
TANZANIA	103	17.8	102	20.5			
BOTSWANA	104	17.1	107	18.9			
KENYA	105	16.8	105	19.6			
BOSNIA AND HERZEGOVINA	106	16.6	106	19.4			
SENEGAL	107	16.3	103	20.4			
BENIN	108	16.4	120	17.1			

Figure 19. Global Attractiveness Index 2018, countries ranked 73 to 108. Source: The European House - Ambrosetti data elaboration, 2018

	GAI Rank 2018	GAI Score 2018	GAI Rank 2017	GAI Score 2017	Dynamics 2018	Sustainability 2018	
CAMBODIA	109	16.3	115	17.5			HIGH
RWANDA	110	16.3	114	17.6			
CAMEROON	111	16.1	121	16.9			MEDIUM
GUATEMALA	112	15.9	111	16.0			
LAO PDR	113	15.6	124	16.4			LOW
ZAMBIA	114	15.5	118	17.3			
TAJIKISTAN	115	15.4	122	16.6			
NEPAL	116	15.1	129	14.7			
MONGOLIA	117	14.8	125	16.0			
PAKISTAN	118	14.8	119	17.3			
MAURITANIA	119	14.6	113	17.7			
EL SALVADOR	120	14.5	126	15.9			
MALI	121	14.4	110	16.0			
MYANMAR	122	14.0	101	20.7			
UGANDA	123	13.9	116	17.4			
HONDURAS	124	13.8	123	16.5			
SEYCHELLES	125	13.6	117	17.3			
TIMOR-LESTE	126	12.5	109	18.1			
GUINEA	127	12.4	131	13.7			
CHAD	128	12.4	127	19.0			
GAMBIA	129	12.3	128	14.9			
SYRIAN ARAB REPUBLIC	130	12.2	138	10.0			
BURUNDI	131	11.7	133	13.2			
MALAWI	132	11.3	132	13.6			
LIBERIA	133	11.2	130	13.8			
NIGERIA	134	10.6	100	20.8			
ZIMBABWE	135	9.7	134	12.6			
MADAGASCAR	136	9.7	136	12.1			
NAMIBIA	137	9.1	137	11.4			
MOZAMBIQUE	138	8.7	130	12.0			
LIBYA	139	7.4	142	5.1			
SIERRA LEONE	140	7.1	139	7.7			
HAITI	141	5.3	140	6.9			
SWAZILAND	142	4.7	141	6.0			
YEMEN	143	2.1	143	1.8			
LESOTHO	144	0.1	144	0.1			

Figure 20. Global Attractiveness Index 2018, countries ranked 109 to 144. Source: The European House - Ambrosetti data elaboration, 2018

In order to properly interpret the rankings of the individual Countries, bear in mind that:

- *ranking* in terms of Country attractiveness is shown in the first column (GAI Rank 2018), while the *score* of each Country is in the second one (GAI Score 2018)¹⁵. To have a more effective use of data, columns 3 and 4 of the same table show respectively *Ranking* and *Score* of every Country in the Global Attractiveness Index 2017. The figure showed reflects adjustments and updates of time series implemented by survey's Institutions from which initial data that compose the Index are extrapolated;
- the fifth column (Country dynamism) reflects the extent of variation in all KPIs that determine ranking (PI) over the last three years. In other words, it provides an indication of the speed of change (or inertia) of the Country in terms of attractiveness;
- the sixth column (sustainability of the ranking) provides an indication of the extent to which the ranking level achieved by a Country is sustainable (or unsustainable) in the future. A critical (red) sustainability level is a warning signal and very likely in the medium-term the Country will tend to drop in the PI rankings. Conversely, a Country with a high sustainability level will tend to consolidate its position or, if accompanied by a high level of dynamism, improve it.

The last two columns divide the Countries into quartiles (of 36 countries each) that are subdivided into four levels of Dynamism/Sustainability: high (dark green), medium (light green), low (yellow) and critical (red). The purpose of this graphical representation is to provide a clear and accessible image of a Country, with respect to both its direct competitors and as verification and corroboration of the position it occupies within the 2018 Global Attractiveness Index.

The Sustainability dimension, in particular, is based on both economic¹⁶ and more qualitative evaluations, chosen because they are at the root of the concept by which a Country should be defined sustainable, both from an economic/financial point-of-view, and its quality of life¹⁷.

For example, if we consider the **35 OECD Countries**¹⁸, 15 are indicated as economies with a high level of sustainability, 7 with a medium level, and 10 with a low level, while just three, Japan, Greece and Latvia, are considered critical. Concerning Japan in particular, despite its overall standing in the Positioning Index,

¹⁵ Remind that, while the *Ranking* measures the Country attractiveness with respect to all the others, the *Score* represents the points obtained by every Country in the different KPIs which compose the attributes of the Global Attractiveness Index.

¹⁶ For example, debt/GDP, inflation rate and market concentration index.

¹⁷ Or life expectancy at birth, suicide rate and Global Peace Index, to give just some examples.

¹⁸ United States, Germany, Japan, Canada, United Kingdom, Australia, Netherlands, Republic of Korea, Switzerland, France, Italy, Austria, Denmark, Sweden, Spain, Ireland, Norway, Luxembourg, Belgium, Finland, Czech Republic, New Zealand, Poland, Iceland, Mexico, Estonia, Israel, Slovenia, Hungary, Chile, Slovakia, Turkey, Portugal, Latvia and Greece.

this sustainability “warning signal” is the result of its low growth rates and indicates the risk that it will not be able to maintain its rank as no. 3 in a future Global Attractiveness Index.

Conversely, Chile, although low in the standings (47th), has greater and positive growth rates which lead one to believe that, in the future, it will gain ground to the detriment of other Countries such as, for example Estonia, Slovakia and Hungary.

Another special case is that of China. Ranked 6th in terms of attractiveness, it is not indicated as being sustainable. This could be explained by the fact that the rapid growth experienced in recent years is not yet sustainable on a long-term basis and is now beginning to slow, dropping from two-digit figures to ones that are still high and currently surpassed only by India (which, in the same way, although in 27th position, demonstrates the same trend as that of China: very dynamic but not very sustainable).

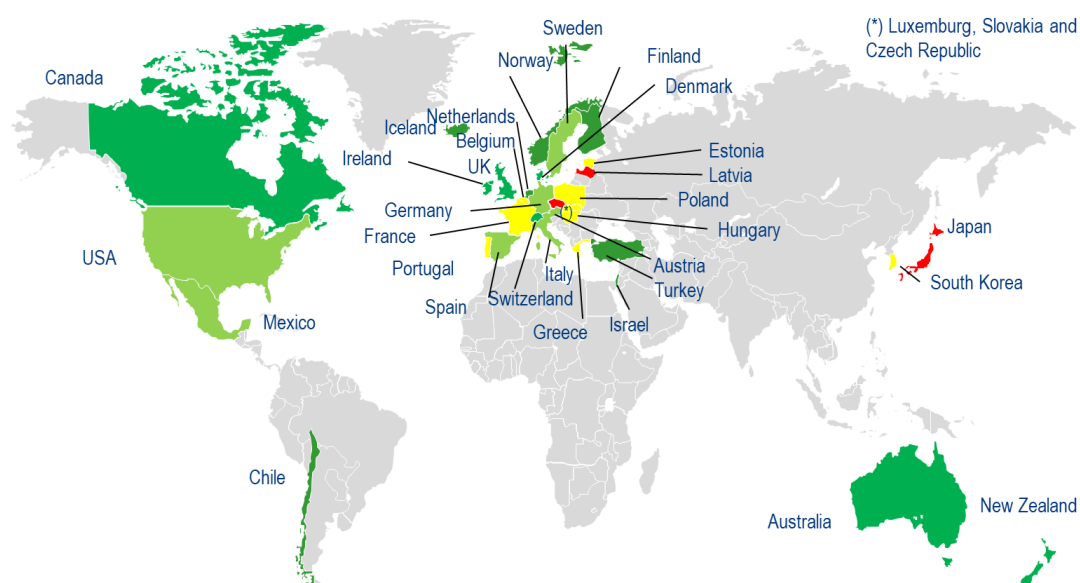


Figure 21. OECD countries ranked on the Sustainability Index, dark green indicating “high sustainability”, light green “medium”, yellow “low” and red “critical”. Source: *The European House – Ambrosetti data elaboration, 2018*

Moving to the “Dynamism” results, it can be noticed an important variability among OECD countries: Iceland and Mexico show positive dynamics in the last 3-year period, while the majority of economies, 7 in total, lived few changes in the same time period. Countries like Korea, Italy and Norway are experiencing, during the last years, a slower growth pace.

A low Dynamicity Index is not always a negative indicator: since it represents a growth rate, it is structurally lower for the Countries that have reached top positions¹⁹.

¹⁹ For example, Italy is firmly in eighth place in the KPI “Number of scientific publications”. The positioning, albeit excellent, is stable: the relative KPI of dynamism sees us in 133th place.

Given the data represented, it is easy to foresee that Countries with a high level of Dynamism and Sustainability will gain positions in the future, contrary to those which, due to their low dynamicity or non-sustainable situation, will probably see their positioning to decrease in that ranking. We underline that, conversely to the Positioning Index, the Dynamism one is subject to greater variability over the time and – in specific circumstances – could misrepresent the effective deviation of placement of Countries, if not over a longer period.

Concerning specifically the **Positioning Index (PI)**, below is the *ranking* of the first 25 Countries which compose the index over five years.

	GAI 2018	GAI 2017	GAI 2016	GAI 2015	GAI 2014
USA	1	1	1	1	1
GERMANY	2	2	2	2	2
JAPAN	3	3	4	3	3
UK	4	8	8	4	5
SINGAPORE	5	4	3	7	8
CHINA	6	5	6	8	7
FRANCE	7	7	7	6	4
CANADA	8	6	5	5	6
AUSTRALIA	9	10	9	9	9
KOREA	10	11	10	11	11
NETHERLANDS	11	9	11	10	13
HONG KONG	12	10	12	14	10
SWITZERLAND	13	12	10	12	12
AUSTRIA	14	14	14	15	14
BELGIUM	15	16	19	18	19
ITALY	16	17	15	19	20
SWEDEN	17	22	17	17	17
IRELAND	18	15	21	24	26
LUXEMBOURG	19	23	25	20	16
ICELAND	20	18	24	21	24
NORWAY	21	19	16	18	15
SPAIN	22	24	23	23	25
DENMARK	23	21	18	22	21
NEW ZEALAND	24	20	22	27	28
UNITED ARAB EMIRATES	25	25	26	26	27

Figure 22. Global Attractiveness Index 2018, first 25 positions. *Source: The European House – Ambrosetti data elaboration, 2018*

The first Country, in terms of Attractiveness, remains, in the five years considered, the United States of America, followed by Germany and Japan. Stationary is the

positioning of some of the main European economies, like France and the United Kingdom, both stable in the first eight positions, followed at a greater gap by Italy (16th)²⁰ and Spain (22nd).

Regarding OECD economies, these are all included in the first 53 positions.

The Global Attractiveness Index captures very precisely the attractivity: relating the score of the Global Attractiveness Index to the overall level of gross investments, emerges an increasing linearity among the two variables²¹. As shown in the graph below, Countries with higher positioning in the GAI ranking – as USA, France, UK, etc. – are those which tend to obtain greater results in terms of gross fixed investment levels; equally, less significant scores in the GAI ranking, corresponds to lower performances.

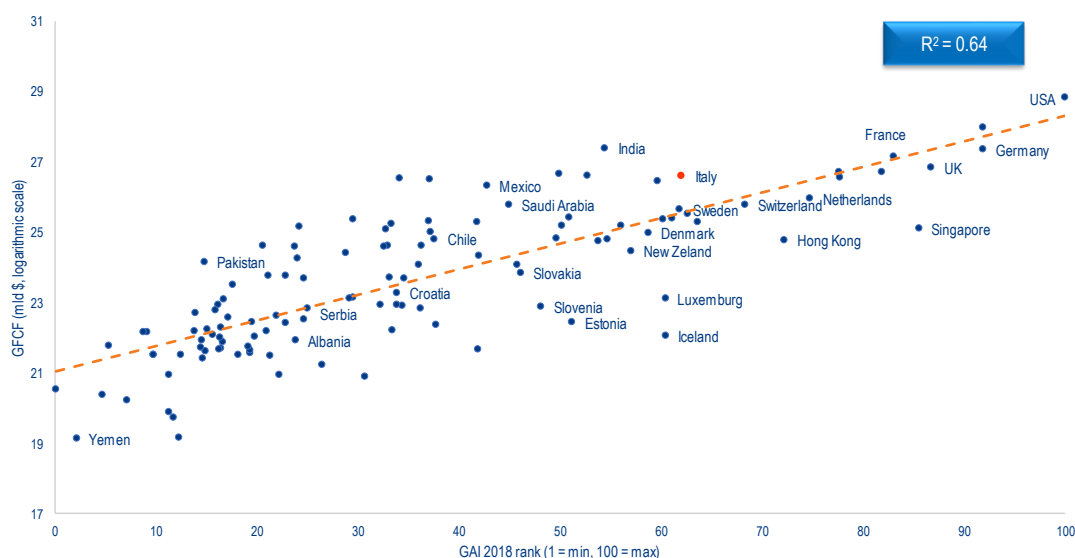


Figure 23. Global Attractiveness Index 2018 and Gross Fixed Capital Formation (GFCF, \$ mld, logarithmic scale). Source: *The European House – Ambrosetti data elaboration, 2018*

Global Attractiveness Index is confirmed to be a very stable index. Only 11 countries (11% of the total) have experienced, between 2017 and 2018, a rank variation greater than 10 positions. The maximum gain is 17 positions (Bangladesh²², which moves from 112th to 95th position), the maximum loss is 34 position (Nigeria²³, which moves from 100th to 134th position).

When restricting the analysis to the first 50 countries – where data are more reliable – the stability of the Index is even more significant.

²¹ The R^2 index of the model is 0.64, the variable GFCF results statistically significant, with a p-value less than 0.01.

²² The positive variation is mainly due to a rise in the total factor productivity growth rate (KPI 13) and in gross fixed capital over national GDP (KPI 18).

²³ A large amount of KPIs present a worsening. KPI 13, total factor productivity growth rate, records a real collapse, moving from 7th to 108th position.

Only two countries (Iran, which gains 15 position moving from 59th to 44th position, and Qatar, which moves from 32nd to 45th position) present an absolute variation greater than 10 positions, and the average variation is 0.32.



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