

**POLITECNICO DI TORINO**

**Master of Science  
in Engineering and Management**

Master of Science Thesis

**Inclusive institutions forging inclusive growth.  
PMR data panel regression with institutional  
and non-institutional variables.**



**Thesis Director**  
Prof. Carlo Cambini

**Candidate**  
Magdalena Ewa Murino

2017/2018



# Index

<b>Introduction</b> .....	<b>8</b>
<b>1 Faber est suae quisque fortunae (Sallustio)</b> .....	<b>10</b>
1.1 How institutions shape nations' future .....	11
1.2 Other theories: assumptions and doubts .....	14
1.2.1 First Welfare Theorem digression .....	18
1.3 The key role of institutions .....	21
1.4 Inclusive institutions generate inclusive growth .....	24
1.4.1 Schumpeter and creative destruction digression .....	24
1.5 Why it's not simple as it might seem .....	30
<b>2 Socially-inclusive economic growth</b> .....	<b>33</b>
2.1 Inclusive growth structural policy incentives .....	34
2.2 National economic performance .....	36
2.3 Today's picture .....	38
2.4 Incentives and structural policy institutions ecosystem .....	44
2.5 Inclusive Development Index .....	49
2.6 From Framework to action .....	51
2.7 What needs to be corrected .....	58
<b>3 Product Market Regulation</b> .....	<b>60</b>
3.1 The PMR indicator .....	61
3.2 PMR and recent reforms .....	70
3.3 PMR reforms and the future .....	72
<b>4 PMR and inclusive growth indicators analysis: data panel regression</b> .....	<b>74</b>
4.1 The methodology .....	76
4.2 Models and variables .....	77
4.3 Results .....	85
4.3.1 PMR data panel regression with institutional variables .....	85
4.3.1.1 Institutional variables macro level data panel regression .....	85
4.3.1.2 Micro level set: <i>government and economic efficiency</i> data panel regression .....	90
4.3.1.3 Micro level set: <i>accountability</i> data panel regression .....	93
4.3.1.4 Micro level set: <i>rule of law</i> data panel regression .....	95
4.3.1.5 Micro level set: <i>trade</i> data panel regression .....	98
4.3.2 PMR data panel regression with non-institutional variables .....	99
4.3.2.1 Non-institutional variables macro level data panel regression .....	99
4.3.2.2 Micro level set: <i>life quality</i> data panel regression .....	101
4.3.2.3 Micro level set: <i>employment</i> data panel regression .....	102
4.3.2.4 Micro level set: <i>education</i> data panel regression .....	103

---

<b>5 Goals for inclusive growth stimulation.....</b>	<b>105</b>
5.1 No poverty: Goal 1 .....	106
5.2 Zero hunger: Goal 2 .....	108
5.3 Good health and well-being: Goal 3 .....	109
5.4 Quality education: Goal 4 .....	110
5.5 Decent work and economic growth: Goal 8.....	111
5.6 Industry, innovation, and infrastructure: Goal 9 .....	113
5.7 Reduced inequalities: Goal 10.....	114
5.8 Peace, justice, and strong institutions: Goal 16.....	114
5.9 Partnership for global development: Goal 17 .....	116
<b>Conclusion.....</b>	<b>119</b>
<b>Appendix .....</b>	<b>120</b>
<b>References .....</b>	<b>133</b>

---

## Index of figures

Figure 1: Nogales Arizona and Nogales Sonora divided by a fence - aerial image from web.	11
Figure 2- elaboration of The Virtuous Circle of Inclusive Growth and Development from The Inclusive Growth and Development Report 2017 .....	46
Figure 3: Economy-wide PMR score in 2013 - Source: The 2013 update of the OECD's database on product market regulation.....	67
Figure 4: State control in 2013 - Source: The 2013 update of the OECD's database on product market regulation.....	67
Figure 5: Barriers to entrepreneurship in 2013 - Source: The 2013 update of the OECD's database on product market regulation.....	68
Figure 6: Barriers to trade and investment in 2013 - Source: The 2013 update of the OECD's database on product market regulation.....	68

## Index of tables

Table 1: elaboration of The Inclusive Growth and Development Framework from The Inclusive Growth and Development Report 2017 .....	35
Table 2: elaboration of The Inclusive Growth and Development Key Performance Indicators from The Inclusive Growth and Development Report 2017 .....	37
Table 3: elaboration of Tree structure of the economy-wide PMR indicator from The 2013 Update of the OECD's Database on Product Market Regulation .....	64
Table 4: elaboration of Tree structure of the NMR indicators - ETCR (energy, transport and communication sectors) - from The 2013 Update of the OECD's Database on Product Market Regulation .....	65
Table 5: elaboration of Tree structure of the NMR indicators - Professional services sectors - from The 2013 Update of the OECD's Database on Product Market Regulation .....	66
Table 6: elaboration of Tree structure of the NMR indicators - Retail distribution sector - from The 2013 Update of the OECD's Database on Product Market Regulation .....	66
Table 7: elaboration of the overall PMR indicator, from 1998 to 2013, index scale 0 to 6 from least to most restrictive - from The 2013 Update of the OECD's Database on Product Market Regulation .....	71
Table 8: list of OECD countries examined for the purpose of this analysis .....	78
Table 9: Source: Stata - Institutional variables, macro level data panel regression .....	85
Table 10: Source: Stata - Institutional variables, micro level government and economic efficiency data panel regression .....	90
Table 11: Source: Stata - Institutional variables, micro level accountability data panel regression .....	93
Table 12: Source: Stata - Institutional variables, micro level rule of law data panel regression .....	95
Table 13: Source: Stata - Institutional variables, micro level trade data panel regression .....	98
Table 14: Source: Stata - Non-institutional variables, macro level data panel regression .....	99
Table 15: Source: Stata - Non-institutional variables, micro level life quality data panel regression .....	101
Table 16: Source: Stata - Non-institutional variables, micro level employment data panel regression .....	102
Table 17: Source: Stata - Non-institutional variables, micro level education data panel regression .....	103
Table 18: National KPIs Dashboard, Advanced Economies: Level .....	120
Table 19: National KPIs Dashboard, Advanced Economies: 5 year trend .....	121
Table 20: National KPIs Dashboard, Developing Economies: Level .....	122
Table 21: National KPIs Dashboard, Developing Economies: 5 year trend .....	123
Table 22: Policy and Institutional Indicators, Advanced Economies .....	124
Table 23: Policy and Institutional Indicators, Upper Middle-Income Economies .....	125
Table 24: Policy and Institutional Indicators, Lower Middle-Income Economies .....	126
Table 25: Policy and Institutional Indicators, Low Income Economies .....	127
Table 26: Inclusive Development Index, Ranking 2017 .....	128
Table 27: Inclusive Development Index, Advanced Economies: Level .....	129
Table 28: Inclusive Development Index, Advanced Economies: Trend .....	130
Table 29: Inclusive Development Index, Developing Economies: Level .....	131
Table 30: Inclusive Development Index, Developing Economies: Trend .....	132



## **Introduction.**

The last several years saw an increasing demand for a more socially-inclusive approach regarding economic growth as an outcome of inclusive institutions with the aim to provide more economic opportunities.

The aim of this paper is to investigate different types of institutions, their main characteristics and how they reflect on a country's development and its inclusive growth.

There are several reasons why a nation decides to undertake a path of development instead of another, which can lead to success and therefore to economic and cultural enrichment, or to stagnation or retrocession.

One of inclusive institutions' main characteristics, market competitiveness, has been taken as independent variable for the data panel regression carried out in this paper. The trajectory of the indicator for the degree of market competitiveness, the PMR, has been compared to the trajectories of institutional and non-institutional variables.

Pro-competition regulation in product markets would help improving living standards. In fact, studies have shown that competition can increase the output per capita by increasing investment and employment while encouraging companies to be more innovative and efficient, and thus increase productivity.

In business theory, the top-line of growth concerns economic performance of the nations. In this scenery, inclusive growth, driven by inclusive institutions, can be seen as an approach to extend the influence of top-line economy on the bottom-line one, which regards the chances of progress in living standards. However, since economy is not a business, inclusive growth cannot be limited to this comparison: literature shows that a national economy is prone to a feedback loop between the bottom- and top-lines, either in a positive or negative direction. A

positive feedback of this kind is produced not only by education and redistribution, which are two of the most likely areas to appear in a discussion on inequality, but rather it is more influenced by a mix of effective economic institutions and policy incentives in many areas that have as a result a more economically stable middle class and a sensible reduction of poverty and social marginalization.

I have considered the institutional and non-institutional variables as inclusive institutions' indicators and what these institutions are building towards to.

Results per each data panel are shown and commented in chapter 4.

## 1 Faber est suae quisque fortunae (Sallustio).

In *Why Nations Fail, The Origins of Power, Prosperity and Poverty*<sup>1</sup>, its authors Daron Acemoglu<sup>2</sup> and James A. Robinson<sup>3</sup> have proposed a theory which states that at the origin and diffusion of prosperity and poverty there are those economic and political institutions that nations decide to have, and which quality determines their capability to proceed in the geography of inequalities.

There are several reasons why a nation decides to undertake a path of development instead of another, which can lead to success and therefore to economic and cultural enrichment, or to stagnation or retrocession.

For the purposes of this paper it is very important and interesting to underline how the foundation of success or failure of a nation is the creation of different political and economic institutions which will mirror the economic growth of a nation and influence its future.

---

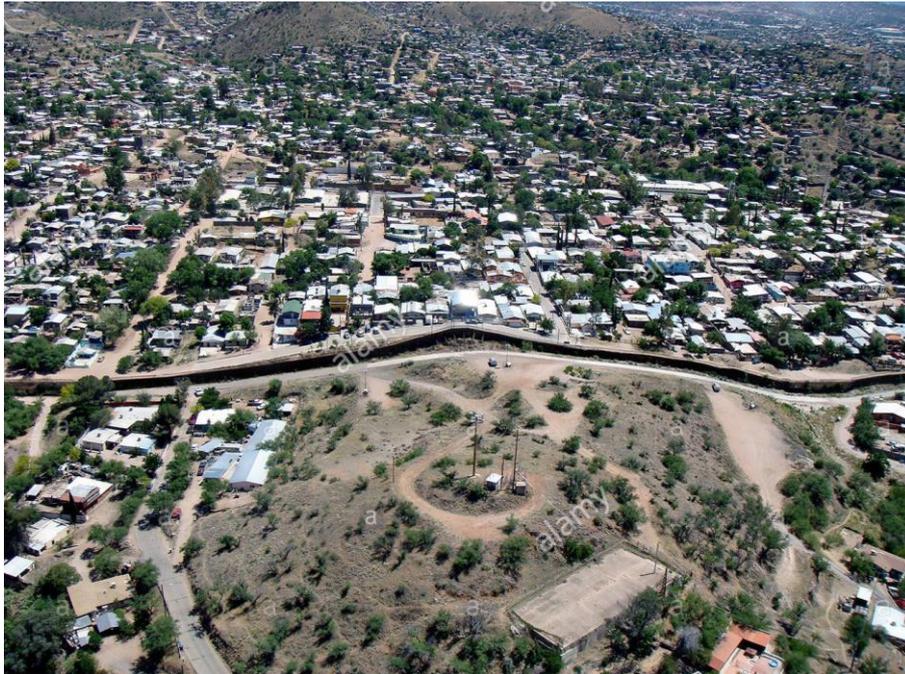
<sup>1</sup> *Why Nations Fail, The Origins of Power, Prosperity and Poverty*, first published in 2012, is a non-fiction book written by the economist Daron Acemoglu and the political scientist James A. Robinson. It applies insights from institutional economics, development economics and economic history to understand why nations develop differently, with some succeeding in the accumulation of power and prosperity and others failing, via a wide range of historical case studies.

<sup>2</sup> Daron Kamer Acemoğlu (September 3, 1967), is an Armenian-American economist and Killian Professor of Economics at MIT, winner of the 2005 John Bates Clark Medal. He is among the ten most cited economists in the world.

<sup>3</sup> James Alan Robinson, (1960), is the David Florence Professor of Government at Harvard University. A political scientist and economist, conducted influential research in the field of political and economic development and the factors that are the root causes of conflict. He is also known as an expert on Latin America and Africa.

## 1.1 How institutions shape nations' future.

An explanatory example of the previous assumption is the city of Nogales (city between US and Mexico), which is cut in half by a fence. The northern part with respect to the fence is Nogales, Arizona (US); in the southern part, located just few feet away, there is Nogales, Sonora (Mexico).



*Figure 1: Nogales Arizona and Nogales Sonora divided by a fence - aerial image from web.*

While the division between North and South of the fence may not be geographically significant, the social contrast is stark; in Nogales, Arizona:

- a) the average house-hold yearly income is roughly \$30,000 and most of the adult population has gained a least high-school level education, and a majority percentile scholastic education amongst youths;
- b) with respect to global standards, the population enjoys a high life expectancy and a low incidence of various pathologies;

- c) public services, such as communication utilities, sewage systems, public health, road networks, and public order and safety are guaranteed by appropriate Government agencies. The belief in the safeguard of life and property are well established concepts within Arizonan society;
- d) democracy is well established, and citizens take an active and participatory role in the political life of their community.

On the other hand, in Nogales, Sonora, the economic and social hardships are evident:

1. household income is approximately a third to that of their neighbours to the North. Scholarly education is discontinuous and oftentimes inadequate;
2. health care is rudimentary and severely underfunded, with high rates of infant mortality;
3. infrastructure is underdeveloped and security services lacking: high crime rates are rife and corruption plagues businesses and entrepreneurs;
4. democracy is in its infancy; until the year 2000, Nogales was administrated by the Institutional Revolutionary Party.

It would appear, according to the authors, that the gulf in economic prosperity is caused by these incentives. Businesses, individuals, and politicians are incentivised, in large part, by economic and political policies put forward by the appropriate US government institutions, which shape and formulate the nature and impact of these incentives. That is, economic institutions give rise to economic incentives; they incentivise to pursue education, fiscal responsibility and capital growth, innovation and adoption of new technologies, and so on. Political institutions define the power entrusted into the hands of ordinary citizens, through rights and principles codified within constitutional law. The society is democratic in nature, and its citizens are entrusted with the right to keep

politicians in check, and influence how they behave; politicians are servants of the State, they are held accountable to the will of the People. This is the yardstick against which politicians are judged; whether they act in the interest of society and its citizens, or whether they abuse their power and pursue personal gain.

Political institutions include, but are not limited to, written constitutions and to whether the society is a democracy. They include the power and capacity of the state to regulate and govern society, how the power is distributed within the society, particularly the ability of different groups to act collectively to pursue their objectives or to stop others from pursuing theirs.

*<< As institutions influence the behaviour and incentives in real life, they forge the success or failure of nations. Individual talent matters at every level of society, but even that needs an institutional framework to transform into a positive force >>.*

[Daron Acemoglu and James A. Robinson, *Why Nations Fail*, 2012].

Steve Jobs, Jeff Bezos and Bill Gates are evident examples of men with immense talent and ambition and who ultimately were able to capitalise on these incentives. The American education system enabled them to develop the necessary skills to complement and express their talent.

The economic institutions in the US enabled them to set-up companies with ease, without the hindrance of red-tape, bureaucratic or otherwise. Those institutions also made the financing of their projects feasible. The highly-skilled work force enabled them to hire qualified personnel, and the relatively competitive market environment aided the expansion of their companies, and to market their products. These entrepreneurs operated with the confidence that their projects could, one day, materialise. They placed their trust in the institutions and their ramifications: the rule of law, to guarantee the regulation of business practices, a healthy economic fabric in which to thrive, the political institutions ensured stability and continuity, ensuring the continuation of a stable and democratic climate

extirpating the risk of a dictatorship expropriating their wealth, threatening their lives and livelihoods, and also ensured that no particular interest in the society could tempt the government in an economically disastrous direction, by limiting political power and by distributing it sufficiently broadly such that a set of the very same economic institutions which created the incentives for prosperity, could emerge.

Acemoglu's and Robinson's theory for world inequality shows how different parts of the world ended up having these precise institutions and why, and how poverty and prosperity are the results of the interactions between political and economic institutions.

The global situation we have today finds its roots in the past and how institutions have been developed in time. It has been ascertained that once populations are organised within societal constructs, these institutions tend to persist, maintained and progressed by its citizens.

The rules societies establish are determined through political avenues: who is given power and how this power can be exercised.

## **1.2 Other theories: assumptions and doubts.**

Several other theories claim to be the answer to nations' disparities.

The most accredited ones are the geographical hypothesis, cultural hypothesis and ignorance hypothesis.

Each of them, however, have arguments that can be rejected and confuted, reinforcing this way institutions' central roles.

- Geographical hypothesis.

One of the hypothesis most widely accepted is the one stating that that behind world inequality lies the geographical position of different states. Particularly, it seems that those in temperate climates are advantaged with respect to tropical and semitropical areas.

Multiple experts are proponents of these ideas. Among them the economist Jeffrey Sachs<sup>4</sup> (*Geography and Economic Development*, 1998)<sup>5</sup> suggests that not only the climatic conditions affect work ethics, but also tropical diseases and soils which hinder productive and economically viable agriculture.

However, history has shown that this is not so straightforward; the Tropics, for example, have never been subject to endemic poverty as they are today.

Also, at the time of the discovery of America by Columbus, the greatest civilizations were living where today Mexico, Central America, Peru and Bolivia are while United States, Canada, Argentina, and Chile were mostly inhabited.

Taking in consideration the example mentioned in the previous paragraph, the geographical hypothesis cannot explain either the case of Nogales, Arizona and Nogales, Sonora, which are divided only by a fence and lie in the same area.

The difference, again, lies in the economic and political institutions which characterize that particular country.

---

<sup>4</sup> Jeffrey David Sachs (November 5, 1954), is an American economist, public policy analyst, and former director of the Earth Institute at Columbia University. He is known as one of the world's leading experts on economic development and the fight against poverty.

<sup>5</sup> *Geography and Economic Development*, 1998, by Jeffrey D. Sachs, John Luke Gallup, Andrew D. Mellinger, is a paper which addresses the relationship between geography and macroeconomic growth. Investigates the ways in which geography may matter directly for growth, controlling for economic policies and institutions, as well as the effects of geography on policy choices and institutions.

Another vision of the geography hypothesis is given by the ecologist and evolutionary biologist Jared Diamond<sup>6</sup> (*Evolution, consequences and future of plant and animal domestication*, 2002)<sup>7</sup>. According to him the origins of intercontinental inequality at the beginning of the modern period (five hundred years ago) is the different historical endowment of plants and animal species influencing the agricultural productivity. He makes a distinction between animals domesticated by humans (i.e. in the Fertile Crescent) and those who were not (i.e. America). It is demonstrated that in those areas where many species were more easily domesticated the society adopted more quickly a wealthy farming lifestyle, with specialization of labor, trade, urbanization and political development. In such an environment, technological innovation took place much more rapidly than in other parts of the world, leading to different paths of technological change and prosperity across different continents.

Unfortunately, this fails to explain modern inequality: Diamond argues that the Spanish were able to dominate the civilizations of the Americas because they were more familiar with farming and superior technology. But at that time, the income of Spanish and Americans was not so different.

In addition, Diamond's thesis also implies that once the Incas had been exposed to all the species and resulting technologies they had not been able to develop themselves and so they had to attain Spanish standards. This is not what happened. Nowadays the gap in income between Spain and Peru derives from the uneven dissemination of modern industrial technologies, which has little to do with

---

<sup>6</sup> Jared Mason Diamond (September 10, 1937), is an American geographer, historian, author and professor of geography at UCLA. Is known for drawing from a variety of fields, including anthropology, ecology, geography and evolutionary biology. In 2005 was ranked ninth on a poll by Prospect and Foreign Policy of the world's top 100 public intellectuals.

<sup>7</sup> *Evolution, consequences and future of plant and animal domestication*, 2002, by Jared Diamond, answers to questions regarding animal domestication, determined the remaking of the modern world, as farmers spread at the expense of hunter-gatherers and of other farmers.

animals and agricultures. The main difference was that Spain was able to adopt new technologies such as steam power, railroads, electricity, mechanization and factory production, at a faster rate than Peru's, creating a technology gap that persists also today on a bigger scale, as new technologies, in particular those related to information technology, are constantly developing.

- Cultural hypothesis.

The culture hypothesis links prosperity to culture.

This is not totally false if we consider “culture” as all the ethical norms which sometimes can be hard to change and can support institutional differences. Studies have shown that if with “culture” are meant religion, national ethics, then these are not that relevant in describing why the inequalities in the world persist.

The extent to which people trust each other or are able to cooperate is important but this is mostly an outcome that can be seen related to institutions. This ideology finds support, for example, in Mexicans' lack of trust in their government due to their impossibility to eliminate drug cartels or provide a functioning unbiased legal system.

A similar situation can be found between South and North Korea: the first one, one of the richest countries in the world, the second, on the other hand deals with periodic famine and poverty. Even though their culture is very different today, they share a long period of common history: this is why the cultural hypothesis is not contemplated, rather the differences between the two countries are a consequence of the different institutions and institutional histories established within the countries.

- Ignorance hypothesis.

Another hypothesis to explain why some nations are poor and others are rich is the ignorance hypothesis which argues that some rulers are not capable to make a country richer because they are not knowledgeable enough.

This hypothesis follows the study made by the English economist Lionel Robbins<sup>8</sup> (1935, p. 16)<sup>9</sup> in which he stated «*Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative users*».

As a theoretical result from the idea to focus economics on the best use of scarce means to satisfy social ends is the First Welfare Theorem.

### **1.2.1 First Welfare Theorem digression.**

The First Welfare Theorem states that a market will tend toward a competitive equilibrium - Pareto optimal - when the market respects the following attributes:

1. *complete markets*: no transaction costs and perfect information;
2. *price taking behaviour*: no monopolists and easy entry and exit from the market;

which take to:

---

<sup>8</sup> Lionel Charles Robbins, Baron Robbins, (November 1898 - May 1984), was a British economist and member of the economics department at the LSE. He is known for his leadership at LSE, his proposed definition of economics, and for his instrumental efforts in shifting Anglo-Saxon economics from its Marshallian direction. He is famous for the quote, "Humans want what they can't have."

<sup>9</sup> Robbins L. (1935). An Essay on the Nature and Significance of Economic Science.

- basic exchange economy – lots of consumption goods, lots of individuals endowed with some of each good;
- money is a means of exchange, but has no consumption value and nobody's endowed with it, it just facilitates trade;
- firms are technologies for turning some goods into some other goods;
- each good has a “market price”.

We're thinking about general equilibrium, or competitive equilibrium, which is when market prices equate supply and demand for each good

– given market prices, individuals demand the best consumption bundle they can afford

– given market prices, firms choose production to maximize profit (and pay that profit out to their shareholders);

– markets are clear.

For the equilibrium to be fully Pareto optimal, should respect also a third condition:

3. *local nonsatiation of preferences*: for any original bundle of goods there is another bundle of goods arbitrarily close to the original bundle, but that is preferred.

Going back to the ignorance hypothesis, from a social point of view, the allocation of resources in a “market economy” is desirable so that all individuals and firms can freely produce, buy and sell any products or services they wish.

When these circumstances are not present there is a “market failure”, and these failures if not addressed, according to the ignorance hypothesis, become the basis for world inequality.

The ignorance hypothesis can explain only a small fraction of world inequalities.

Of course a lot of countries may fail because of inefficiencies caused by ignorant rulers, but considering for example the divergent paths of the US and Mexico, there weren't differences in knowledge or intentions between their rulers during the colonial period, nor differences in knowledge during the 19<sup>th</sup> and 20<sup>th</sup> century between later US presidents such as Roosevelt and Wilson, and Díaz that made Mexico chose enriching elites economic institutions at the expenses of the rest of the society, while Roosevelt and Wilson did the opposite.

Rather it was the differences between institutional constraints.

One of the clearest statements made by Acemoglu and Robinson is that poor countries are poor because those who have political power make choices that create poverty, not by mistake or ignorance, but on purpose. China, for example, switched from economic policies causing poverty to those implementing economic growth. This didn't happen because the Chinese Communist Party understood that the collective ownership of agricultural land and industry created huge disincentives, but Deng Xiaoping and his allies who were not less self-interested than their rivals but had different objectives, made economic reforms creating market incentives in agriculture and then in industry. It was not a matter of better advices or understanding, but it was they different politics.

### 1.3 The key role of institutions.

So far, we have seen and considered both how economic institutions can determine whether a country is poor or not, and how a country's economic institutions are determined and maintained by the political institutions.

It is important to understand how institutions are structured and the way they operate because within these distinctions lies the type of institution itself.

There are *inclusive* and *extractive* institutions.

Inclusive institutions, in order to stimulate economic growth:

1. encourage participation of citizens in economic activities giving them the possibility do develop their skills and enable them to make their own choices;
2. provide secure private property;
3. assure an equal and reliable system of law and order;
4. provide public services such as roads and transport network, public infrastructure;
5. permit the entry of new businesses and allow people to choose their carriers;
6. establish regulations to prevent fraud.

In order to provide these services, inclusive economic institutions need the support (and backing) of the State.

Inclusive institutions also provide the opportunities to young and early stage entrepreneurs to start their own businesses. In this way workers would tend to increase their productivity and firms would become more efficient.

This would affect every sphere of life, from science to entrepreneurship. Education, skills and a skilled work-force are deeply intertwined to technology and its developments, all elements which stand at the root of progress.

The process of innovation is sustained by economic institutions which stimulate a favourable and fertile working environment, encourage private property ownership rights, uphold contracts, create a level playing field and encourage and allow the entry of new businesses to bring new technology to life.

To technology are linked education, skills, competencies and workers' know-how. The education and skills of the workforce generate the scientific knowledge through which progress is built and that enable the adoption of technologies in different businesses.

On the other hand, economic and political institutions which do not incentivize education, end in failure. In this way, potential nascent talents are impeded from pursuing their interests and studies.

Political institutions are a key determinant for the society; they determine how the government is chosen and what are their duties, who has power in society and how this power can be used.

Acemoglu and Robinson, based on their studies, refer to political institutions that are sufficiently centralized and pluralistic as inclusive political institutions, opposite to extractive political institutions.

There is a strong synergy between economic and political institutions.

Extractive political institutions concentrate power in the hands of narrow élite and place only few constraints on the exercise of this power.

Economic institutions are then often structured by this élite to extract resources from the rest of the society.

Extractive economic institutions naturally stand besides extractive political institutions.

Inclusive political institutions would uproot economic institutions which expropriate the resources of the many, erect entry barriers and suppress the functioning of markets so that only a few benefits.

*<< The synergistic relationship between extractive institutions end up in a loop: political institutions enable the elites controlling political power to choose economic institutions with few constraints or opposing forces. They also enable the elites to structure future political institutions and their evolution. Extractive economic institutions, in turn, enrich the same elites and their economic wealth and power help consolidate their political dominance >>. [Daron Acemoglu and James A. Robinson, Why Nations Fail, 2012].*

This explains why both extractive political and economic institutions support each other and tend to persist.

Inclusive economic institutions are formed on the basis of inclusive political institutions that make widespread power in society and limits its arbitrary activities.

Extractive economic institutions run by inclusive political institutions would not survive because they would be transformed and formed into extractive institutions by the ruling elite at the expense of society and for the benefit of the political élite: economic institutions would never coexist with extractive political institutions.

Nations fail when they have extractive economic institutions supported by extractive political institutions which impede economic growth.

The most obvious choice then would be to establish inclusive institutions that foster economic growth, bringing prosperity.

Economic institutions that create incentives for economic progress may redistribute income and power opposite to the elite.

#### **1.4 Inclusive institutions generate inclusive growth.**

Different institutions have different consequences for the prosperity of a nation, how the prosperity is distributed and who has power. The economic growth which can be induced by institutions creates both winners and losers.

In England, the Industrial Revolution established the foundations of today's world's wealth distribution. The focus was on revolutionary technological changes in steam production, transportation and textile production. Although mechanization increased all incomes and became the basis of a modern industrial society, many were against it.

According to Acemoglu and Robinson, this opposition has its logic.

Economic growth and technological change are accompanied by what the economist Joseph Schumpeter<sup>10</sup> called *creative destruction*: replacement of the old with the new.

##### **1.4.1 Schumpeter and creative destruction digression.**

Schumpeter's key argument is that pursuing prosperity and the prize that it implies, ensures that entrepreneurs and their financiers use most of their work, time, skill, commitment, attention and money into new and risky businesses. The high benefits for entrepreneurship are important not only for business, but for the whole community since

---

<sup>10</sup> Joseph Alois Schumpeter (February 1883 - January 1950), Moravian-born American economist and sociologist known for his theories of capitalist development and business cycles.

entrepreneurship and the creation of new businesses increase employment.

Schumpeter states that the history of entrepreneurship illustrates an important trend that affects those families who constantly seek and reach to the top, subsequently losing their position. Schumpeter didn't oppose the economic intervention but argued that eventually the State must remember that growth will not happen without entrepreneurship. Schumpeter says that all strong companies were also entrepreneurs first, but some companies can be more entrepreneurial in one moment and less in others.

*<< A company starts to die when its innovation decrease >>.*  
[McCraw, 2007]<sup>11</sup>.

Creative Destruction and Obsolescence Creative destruction are compared to the cycles of death and birth in nature.

A business, a product, or a technology is creatively destroyed because some other innovation is being used and which eliminates the previous, making the previous product, technology, and business obsolete.

Even businessmen can be creatively destroyed by other businessmen that possess greater innovations. According to Joseph Schumpeter, creative destruction is when capitalism reaches its 'purest' form.

In the United States this happened from about 1850 to 1914. During this period a man was said to be an innovator if he practiced a 'novel method

---

<sup>11</sup> Thomas Kincaid McCraw (September 1940 - November 2012) from his book "Prophet of Innovation: Joseph Schumpeter and Creative Destruction", 2007.

of production.’ Schumpeter thought of innovations as new and less costly methods to produce older goods [Strassmann, 1959]<sup>12</sup>.

The first stage the economy faces is destruction, composed by three effects: losses, disturbances and unemployment.

During the 19th century entrepreneurs were investing knowing that changes could take place at any time, with the subsequent creation of new goods and technologies. During that time, the losses due to unforeseen events weren’t taken into account, but when they did arise it usually involved specialized devices. The overall process of innovation led to the loss of activities tied to old products or methods.

The process of innovation may have a qualitative meaning according to which a product or service could be replaced. An innovation that has the capability to cause a product or service to become obsolete cannot be the same as the product that is becoming obsolete. The rate of growth usually decreases quickly for new products compared to older ones. This is due to the fact that they are new, innovations start with a rate of expansion so high, that they cannot be maintained. Furthermore, innovations in methods of production always involve qualitative change, which occasionally means that the destruction is not just a partial destruction of an older industry or sector. What often happens is that innovations end up reducing the rate of growth in sectors that are said to be obsolete. Indeed, qualitative differences were the key to surpassing competitive similarities [Strassman, 1959].

---

<sup>12</sup> Wolfgang Paul Strassmann (July 1926) from “Creative Destruction and Partial Obsolescence in American Economic Development”, article in *The Journal of Economic History*, September 1959.

Schumpeter was undoubtedly the leading economic theoretician working on business cycles. Business cycles would predict the arrival of new, meticulous business history.

He tries to fit business growth and collapse into foreseeable wave periods of regular duration. He says that it 'is indeed difficult to see' why these phenomenon of growth and collapse might happen at certain gaps.

The nature of economic cycles is its enormous information on the prosperity of the corporate structure in the United Kingdom, Germany and above all in the United States. He draws attention to companies working in five mostly developing areas: cotton fabrics, railways, steel, cars and electricity. He also underlines three governmental innovations which determine the growth of capitalism: the factory, the corporation and the financial structure. First it starts with the general theory of capitalist development.

In this model, the words 'new men', 'entrepreneurs' and 'new firms' are recurring throughout the theory, describing them as the key drivers of innovation.

All companies eventually react to these situations, but the preliminary feedback comes from entrepreneurs with innovative abilities. These innovations are subject to different schemes: for example, "new goods", "new forms of organization, such as mergers" and "opening new markets". Innovative companies do not develop in the same way throughout the economy. Developing companies are companies that create a new organizational or technological structure in a given sector, in the same company or in other related companies. At the same time, the company is a powerful element that really contradicts the desired innovations because they usually pay for existing orders.

As a result, the history of capitalism expands from violent explosions and disasters.

Adaptation is not a regular process, but something "more like a series of explosions". Innovation is perceived as a double-edged sword, because there are both costs and benefits. There is a domino effect, which is the case of innovations in which the new ones destroy the older ones.

“Needs” can be considered the mother of inventions, but it does not mean that innovation will inevitably be created. Schumpeter brings as example of ‘new men’ and ‘new firms’ referring to the US railroad industry. In the 1830’s entrepreneurs started the construction of a new railway line for the transportation of raw materials from land to sea ports. When steam engines improved and become stronger and coal mines began to develop, railroads replaced almost every canal and highway. By the 1890’s an efficient and large railroad system connected all the territories of the United States at a low price and faster: manufacturers, wholesale sellers and dealers could send or receive goods very quickly. They were a part of the general business of the ‘organism’. It was a symbol of the evolution of capital. In 1873, when the worldwide depression started, there were many ups and downs of railroading. "Liquidation, absorption, adaptation" processes which accompany innovations, were extremely long and painful. Schumpeter saw the development of big businesses, along with the fusion activity, having a large innovation in finance and management – realized by ‘new men’ and ‘new firms, which led to new units of control, new management rules, new research possibilities and industrial equipment. While recognizing that some were destructive abuse with big businesses, Schumpeter writes in *Business Cycles* that the pattern of the movement was a key and logical phase for the consequent

growth of industrial economies. But what he saw was that start-ups always arose and grew uninterruptedly side by side with big businesses. If the change does not occur, 'capitalist society cannot exist'. If the capitalist motor stops, the economic system will sink. Innovation plays a key role in starting the engine and maintaining it working. Capitalism can endure only if there is industrial progress [McCraw, 2009].

The conclusion that arises from *Schumpeter and creative destruction digression* is that economic growth process and inclusive institutions on which the economic market is based create losers as well as winners.

The fear of creative destruction is often a response to inclusive economic and political institutions.

The history of Europe is a living example of the consequences of creative destruction. They were the most important sources of income for the UK for the 18th century. The government of most European countries were controlled by elites whose major source of income was landholding or from trading privileges they enjoyed thanks to monopolies. According to the creative destruction idea, the spread of industry, factories and cities, resources away from the land, reduced land rents and increased the wages the landowners had to pay to their workers. These elites have also noticed the appearance of new businessmen and traders who have lowered their trade privileges. So, with the spread of Industrial Revolution the aristocracies were economic and political losers and formed opposition against industrialization.

People who were threaten that industrialization could take their job place too gave the name to the resistance to technological change (the Luddies).

In England, industrialization marched on despite Luddies' opposition, because the aristocracy opposition was muted.

Powerful groups often stand against economic development and wealth engines. Economic growth is not just a process of more and better machines, and more educated people, but also a transformative and destabilizing process associated with widespread creative destruction [Acemoglu and Robinson, *Why Nations Fail*, 2012].

Growth will then be possible only if it isn't stopped by the economic losers who fear that their economic privileges and strength would disappear.

When a conflict arises, the desires of all parties are not met. Someone will be the winner, someone will lose. The winners of this conflict influence the trajectory of the national economy. If the group standing against growth are the winners, it can effectively block the growth of the economy.

It is not necessary a certain logic of power to create economic institutions that favour economic progress, it only facilitates the choice of political institutions. Political society and the strength of society in the society. The only way to change these political institutions is to force the elites to create more pluralistic institutions.

Likewise, there is no reason why political institutions automatically become pluralistic, there is no natural tendency to political centralization.

### **1.5 Why it's not simple as it might seem.**

The main obstacle to political centralization is the fear of change: whoever has tried to centralize power in the country will also consolidate the power in hands.

The lack of political centralization is not only the lack of public order, but also actors with sufficient powers to block or hinder the activities fear violent opposition reactions and are often discouraged to take action.

A sort of growth under extractive political institutions may arise when the institution permits the development of a kind of inclusive economic institution (such as the Soviet Union). Many societies with extractive political institutions are fleeing accidental economic institutions because of the fear of natural destruction. But the extent to which the elite monopolizes power is different between societies. In some cases, the position of the elites can be secure enough to allow some of the moves toward inclusive economic institutions integration when they are sure that it will not threaten their political power. Or, the historical situation could be such as to endow an extractive political regime with rather inclusive economic institutions, which they decide not to block (e.g. the rapid industrialization of South Korea in the framework of the General Park).

This is why the big gap between extractive political institutions is their degree of political centralization.

Although extractive institutions can generate some growth, they usually do not generate sustainable growth, and this is not a type of economic growth that leads to creative destruction.

When political and economic institutions are both extractive, there are no incentives to create destruction and technological change. For a while, the state could rapidly generate economic growth, but this process would be inherently limited.

Moreover, agreements to support economic growth in the context of extractive political institutions are inherently weak, can be eradicated or easily destroyed through conflicts within extractive institutions themselves. If another group can

conquer this élite and win it and take control, it would have the new wealth and power.

Finally, there is also the risk that extractive economic institutions with some aspects of inclusiveness could become more extractive and stop economic growth. Those who dominate political power will eventually find it more advantageous to use their power to limit competition, increase their market share and promote economic progress.

The distribution and ability to exercise power will ultimately undermine the very foundations of economic prosperity, unless political institutions are transformed from extractive to inclusive [Acemoglu and Robinson, *Why Nations Fail*].

## **2 Socially-inclusive economic growth.**

Chapter 1 explains how institutions, according to their inclusive or extractive nature, can shape the future of its nation

The last several years saw an increasing demand for a more socially-inclusive approach regarding economic growth as an outcome of inclusive institutions with the aim to provide more economic opportunities. This topic is extremely complex, which is the reason why no actual systemic framework has been found yet to direct inclusive growth as for policy and practice.

In business theory, the top-line of growth concerns economic performance of the nations. In this scenery, inclusive growth, driven by inclusive institutions, can be seen as an approach to extend the influence of top-line economy on the bottom-line one, which regards the chances of progress in living standards. However, since economy is not a business, inclusive growth cannot be limited to this comparison: literature shows that a national economy is prone to a feedback loop between the bottom- and top-lines, either in a positive or negative direction. A positive feedback of this kind is produced not only by education and redistribution, which are two of the most likely areas to appear in a discussion on inequality, but rather it is more influenced by a mix of effective economic institutions and policy incentives in many areas that have as a result a more economically stable middle class and a sensible reduction of poverty and social marginalization. Such policies do not prevent pursuing sound macroeconomic policies and long-term efficiency-enhancing reforms.

Chapter 2 will address the current structural policy incentives and indicators for inclusive growth. Through the analysis of indicators such as National KPI, Inclusive Development Index (IDI) which provides an alternative ranking of countries' levels of development and recent progress, and Policy and Institutional Indicators (PIIs) which illustrate relative institutional strength and policy effort,

will be possible to explore incentives and structural policy institution ecosystem, how it works today and actions to be done for the future.

In particular, Chapter 2 is structured as follows:

- paragraph 2.1: inclusive growth structural policy incentives;
- paragraph 2.2: national economic performance;
- paragraph 2.3: today's picture;
- paragraph 2.4: incentives and structural policy institution ecosystem;
- paragraph 2.5: Inclusive Development Index;
- paragraph 2.6: from Framework to action;
- paragraph 2.7: what needs to be corrected;

## **2.1 Inclusive growth structural policy incentives.**

The Framework developed in The Inclusive Growth and Development Report 2017 (World Economic Forum, 2017)<sup>13</sup> is focused on household income, opportunity, economic security, and quality of life as results of structural policy incentives and institutions that contribute to a growth process from which broad-based benefits are spread. This kind of ecosystem represents an ideal self-supporting cycle underpinning modern market economies; however, it has proven to be inappropriate in many advanced countries, since it does not properly take into consideration the forces of secular dispersion, such as an increase of immigration, or the fast improvements of modern technologies, and so forth.

---

<sup>13</sup> The Inclusive Growth and Development Report 2017 (World Economic Forum, 2017) by Richard Samans, Jennifer Blanke Gemma Corrigan, Margareta Drzeniek Hanouz, covers 109 economies and seeks to improve our understanding of how countries can use a diverse spectrum of policy incentives and institutional mechanisms to make economic growth more socially inclusive without dampening incentives to work, save and invest.

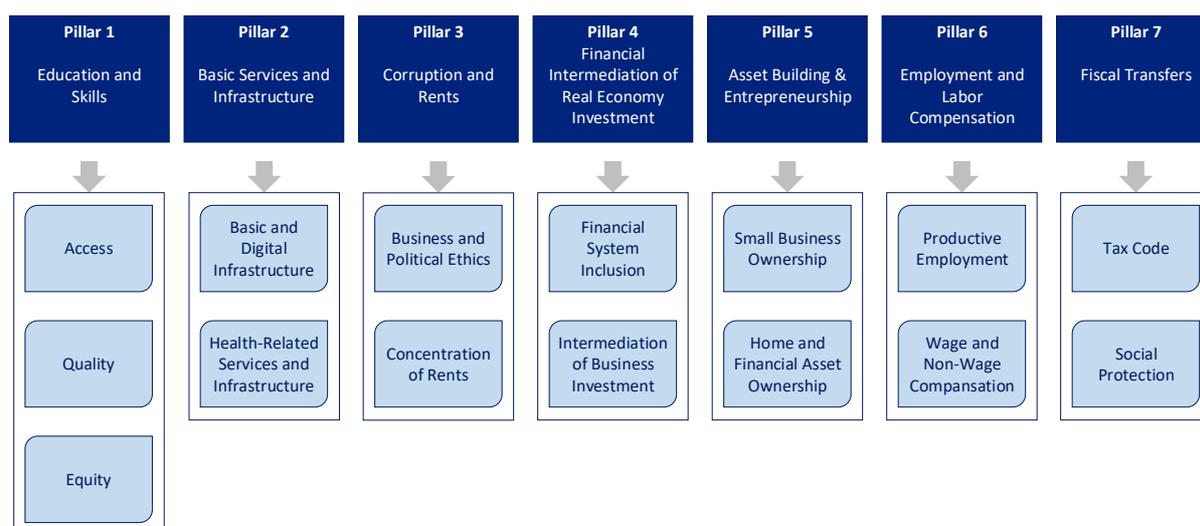


Table 1: elaboration of *The Inclusive Growth and Development Framework* from *The Inclusive Growth and Development Report 2017*

The Framework and the corresponding set of environmental indicators and conditions in 7 main areas (pillars) and 15 subdomains (sub-pillars) consider the policy's areas and the institutional force that have a particularly strong impact on social participation in the process (for example, productive employment) and the results (for example, average family income) of economic growth.

The report shows data that can lead to a comparison of the pillar, sub-pillar, and individual indicator level for the 109 countries that have proven to be relevant, among the 140 countries that are included in the statistical indicators database.

The 7 pillars refer to the macro areas which influence the economic growth. In particular, we can distinguish:

1. pillar 1: *Education and Skills*
2. pillar 2: *Basic Services and Infrastructure*
3. pillar 3: *Corruption and Rents*
4. pillar 4: *Financial Intermediation of Real Economy Investment*
5. pillar 5: *Asset Building & Entrepreneurship*
6. pillar 6: *Employment and Labor Compensation*
7. pillar 7: *Fiscal Transfers*

It should help to give an understanding of strengths and weaknesses within the scheme by governments and stakeholders.

## **2.2 National economic performance.**

In The Inclusive Growth and Development Record 2017, it is also shown the national economic performance (compared to the GDP<sup>14</sup> alone), as the aim of the study is to understand a sustainable development solution, together with broad-based improvement of living standards.

National Key Performance Indicators (KPIs), a set of performance metrics, are presented for each country.

It includes GDP and the “best available cross-country measures of other important facets of sustained, broad-based progress in living standards”. Indeed, the four indicators have been chosen from the pillars: growth and development, inclusion, and integrational equity and sustainability.

### **a. Growth and Development:**

Growth and Development is made of:

1. GDP per capita;
2. labor productivity, support wages which in turn represent the overwhelming majority of household income;
3. employment, a mirror for economic opportunity and family security;
4. healthy-life expectancy, which reflects the quality of life.

---

<sup>14</sup> Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

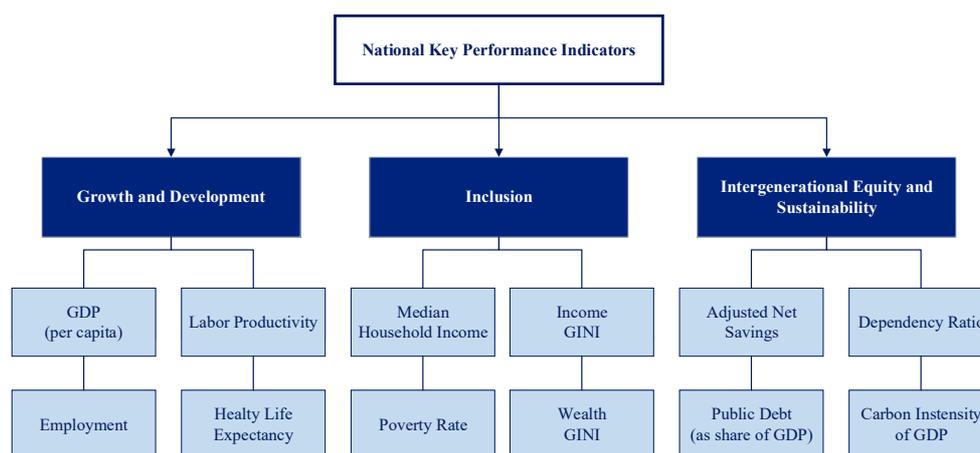


Table 2: elaboration of The Inclusive Growth and Development Key Performance Indicators from The Inclusive Growth and Development Report 2017

### b. Inclusion:

Inclusion is based on measures of social inclusion:

5. median household income, which reflects the progress in living standards;
6. poverty rate;
7. income Gini, the standard international measure of inequality;
8. wealth Gini, the standard international measure of wealth concentration.

### c. Intergenerational Equity and Sustainability:

Integrational Equity and Sustainability express that progress in living standards is not completely socially-inclusive if it's generated excessively and unbearably burdens on younger and future generations.

We talk about:

9. adjusted net saving, measure of the net rate of saving in an economy taking into consideration investments in human capital, depletion of natural resources, and damage caused by pollution;

10. public indebtedness as a share of GDP, which illustrates the scale of borrowing by the current generation against the capacities of future ones;
11. the dependency ratio or proportion of retirees and youth (under 15 years of age) to the working-age population, which is also an indicator of future pressure on a nation's finances;
12. carbon intensity of economic output, a country's relative performance on climate change.

In the Appendix at page 120 is it possible to see the National KPIs Dashboards per each country.

### **2.3 Today's picture.**

*"The world economy is at a crossroads"*. (The Inclusive Growth and Development Record 2017, World Economic Forum, 2017).

A secular stagnation is a concrete threat to these economies, since it seems that investment and output have a disposition to grow slowly due to a stasis in debt and concrete changes in demographics. This eventuality is even more alarming considering that many countries have been in this condition before. An increase of immigration, the fast improvements of modern technologies, a growing global integration and domestic deregulation contribute together in making major changes in labor markets, especially in more advanced countries. The effects on these countries is not only a positive enhancement in efficiency and national income, but also a negative increase of dislocation, fiscal pressure on middle-class and insecurity: it means that there was a difficulty in spreading benefits as quickly as the growth developed. Therefore, both in rich and poor countries, social inclusion is still an important political matter. The improvement in technology

may threaten many intermediary job categories and shape different kinds of industries.

The recent Brexit results and the US presidential campaign show that stagnation is not socially well tolerated in advanced countries. The growth of political parties that do not sympathize with the fundamental perception of the post-war international economic order that includes trade liberalization, supranational governance and labor mobility, is the result of a frustration that generates from the demand for more widely-shared economic opportunity and prosperity.

The beginning of 2017 saw leaders of governments and stakeholder institutions facing the following challenging and urgent issues:

- understand the actual economic phase;
- understand the role of liberal international economic order;
- understand how to exploit the Fourth Industrial Revolution: reorganize societies and create new potential employment is a must, but also develop market mechanisms so that social participation in the creation of new of economic value rather than a mere expansion of transfer payments.

Considering all these issues, national leaders need to decide whether a secular correction of the current economic model is needed, therefore changing the mindset regarding the achievement of high national economic performance. Another goal is to find, if possible, a strategy to fight slow growth and inequality, starting thus a virtuous cycle of social inclusion and sustainable growth.

The last several years saw an increasing demand for a more socially-inclusive approach regarding of economic growth; an approach that should not forget the milestones of allocative efficiency of markets, macroeconomic stability, and positive-sum game benefits of international specialization and exchange, while aiming a more socially inclusive process of growth and a more equal distribution of its benefits.

The sum of all these characteristics makes the demand particularly challenging: as for now, inclusive growth is still in the discussion topic.

We have already seen a different point of view on structural economic reform and how it is involved in the development process. Structural reforms such as refining market circumstances and improving the health of public finances are often associated to the progress of economic efficiency and macroeconomic stability, usually as an answer to balance of payments or fiscal crisis squeezing short-term living standards. But the systematic and continuous efforts to strengthen institutions and policy incentives within the 15 sub-domains of the Framework or address specific deficiencies identified in it, represents also structural reforms, even if the combination demand- and supply-side measures for the purpose of boosting broad living standards while reinforcing the rate and resilience of growth. The balance and the expanded concept of structural reforms are best suited as a long-term strategy, which is an integral part of the development process, and not to prevent or recover from crisis.

If a society is looking for a model of more inclusive growth, the growth strategy should be based on economic, proactive and progressive growth in the institutional strength, which make up the system of income distribution. The model of the inclusiveness of a society's growth is the extent to which it produces broad gains in living standards before fiscal transfers. Therefore, six main pillars of the Framework's seven concern the structural policy and institutional factors that influence the composition of the private sector and the spread on the market itself. The ultimate goal of national economic performance is the broad and sustained progress of living standards, including both wage and non-wage income (e.g. pensions or care for children), economic opportunities and quality of life. This is the basis on which the company assesses the economic strength of its country's leadership. Strong economic growth is a condition to improve living

standards and growth creates the possibility of playing a positive sum for society, even if it does not guarantee it. Inclusive growth can be considered as a strategy to expand economic opportunities and well-being on a large scale.

Alternatively, the dispersion and loss of living standards can create within an economy a pernicious cycles of slow consumer demand, poor businesses and investor confidence, weak investment, rising unemployment or underemployment, stagnant wages and the growth therefore is even slower.

There is a growing evidence that inequality has a statistically significant negative impact on growth as what we would have been expected after the discussion in Chapter 1.

According to a research conducted by the IMF<sup>15</sup>, for example, if the income share increases of 20%, GDP growth will decrease over the medium term. One explanation is that richer families spend less than their income, which can reduce aggregate demand and weaken growth. On the contrary, the GDP grows with an increase in the share of income of the bottom 20%.

If the income of the rich has increased by 1%, GDP growth will decrease by 0.08% points.

If the share of income of the poor and the middle class will increase by 1%, GDP will increase by 0.38% in over 5 years.

---

<sup>15</sup> The International Monetary Fund (IMF) is an international organization headquartered in Washington, D.C., consisting of 189 countries working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.

Accordingly, the OECD<sup>16</sup> research shows that the increase in inequality of 3 Gini<sup>17</sup> points is associated to a decrease in economic growth of 0,35% per year for 25 years – which results in a cumulative loss of 8.5%.

This is mainly because higher level of inequality is associated with poorest families who are struggling with the possibility of investing in health and education, lowering this way the accumulation of human capital and social mobility chances.

The threat of economic income disparities for the prosperity of the nation is especially the large, lower segment of society not advancing. In response to these results, the OECD is working on a new indicator of multidimensional life standards to better capture business wealth. Thanks to the Human-Based Index, the World Bank is another big organization that increasingly focuses on what is needed to reduce poverty and increase the sharing of prosperity.

The degree to which economic growth extends economic opportunities and improvements of living standards is influenced by a heterogeneous mix of structural and institutional aspects of economic policy, and not only education and redistribution. Institutions play a key role: legal and public institutions that manage rules and incentives, in particular, have expanded in recent decades, supported by a collection of accumulated research and practical evidence.

---

<sup>16</sup> The Organisation for Economic Co-operation and Development (OECD) is an intergovernmental economic organisation with 36-member countries founded in 1961 to stimulate economic progress and world trade. It is a forum of countries describing themselves as committed to democracy and the market economy, providing a platform to compare policy experiences, seeking answers to common problems, identify good practices and coordinate domestic and international policies of its members.

<sup>17</sup> In economics, the Gini coefficient, sometimes called Gini index or Gini ratio, is a measure of statistical dispersion intended to represent the income or wealth distribution of a nation's residents and is the most commonly used measurement of inequality. It was developed by the Italian statistician and sociologist Corrado Gini and published in his 1912 paper *Variability and Mutability*.

We can cite Nobel laureate Douglass North<sup>18</sup>, who examined the important role of institutions in creating an incentive structure in the economy, shaping the direction of change and impact on productivity. Since then, other scholars have these observations, also documenting a significant empirical link between institutional development and economic performance.

The construction of economic institutions is an important part of the development path of each country that has industrialized and obtained high living standards. Since development is a complex and multidisciplinary process, a lot of conditions must be met for poverty to be replaced by the growing prosperity of the middle class and the process of institutional deepening takes place in a wide range of sectors. However, the process is not automatic.

Although the increase in national income generates additional resources and political space to effectively establish and implement institutional mechanisms such as public education systems, independent judicial systems, labor protection, social security systems, competition, investment climate, laws and control anti-corruption and basic and digital infrastructure, it is not guaranteed.

The rhythm and the construction model of economic institutions are a choice, a function of policy decisions and of public-private cooperation.

The national growth model is shaped by the dominant political economy and is largely endogenous to the development process. As this political choice, the amount of profit from economic growth to broad socio-economic progress is also significant. Indeed, the importance of building economic institutions for sustainable and inclusive growth was the main lesson of the economic and

---

<sup>18</sup> Douglass Cecil North (November 1920 - November 2015) was an American economist known for his work in economic history. He was the co-recipient (with Robert William Fogel) of the 1993 Nobel Memorial Prize in Economic Sciences. In the words of the Nobel Committee, North and Fogel “renewed research in economic history by applying economic theory and quantitative methods to explain economic and institutional change”.

financial crisis of the 20th century. Most of today's developed and industrialized countries have undergone a lasting process of institutional deepening in order to broaden the base and strengthen the capacity to rebuild their economies. Work, financial, social security, competition and other reforms focused on creating a more integrated and sustainable growth model. They played a key role in supporting the middleclass expansion, the eradication of poverty and the reduction of economic uncertainty in these societies in the second half of the century.

Macroeconomic, finance and commercial control policies remain extremely important as they set the conditions necessary to improve productivity, contributing to economic growth.

#### **2.4 Incentives and structural policy institutions ecosystem.**

Societies that have been particularly successful in building a solid middle class and reducing poverty and social exclusion have sought to create effective economic institutions and policy incentives while supporting growth through sound macroeconomic policies and efficiency-enhancing reforms. These are the ones that we described in Chapter 1 as inclusive institutions.

The pillars and sub-pillars discussed above describe modern economy's structural factors which, in particular, affect the scope of improvement of living conditions. The policy and institutional sectors represented constitute an ecosystem of incentives and structural policy institutions that together, as part of the growth process, help to spread the benefits of a developing economy to a large extent in terms of family income, opportunities, safety and quality of life. This ecosystem is a system of distribution of implicit income based on modern market economies. When it works properly, it tends to operate in a self-driving cycle in which the

increase in economic production and social integration feed each other. Proper and efficient taxation as well as basic social protection characterize the beginning and the end of a continuous cycle in the development process. They are important not only in combating excessive inequalities resulting from market performance, but also in mobilizing resources to support key public services, such as education and physical infrastructure, effectively direct savings to create jobs and support key public services, improve investments opportunities in the real economy and support consumer demand and small entrepreneurship through broad access to financial services, which are necessary to create economic opportunities, market functioning and, therefore, inception and continuous stimulation growth process. Solid, legal, inclusive and competitive institutions support effective allocation of resources and equal opportunities, prevent corruption, excessively high barriers to entry and concentration of rents through a regulatory resolution.

The investment climate, incentives and institutional capacity principles are important to allow investors to benefit from equal opportunities through a strong legal framework and competition.

Basic labor standards, employee protection and benefits result in an increase in wages and household incomes approximately in line with labor productivity, supporting domestic consumption and aggregate demand.

They can also strengthen growth by supporting labor mobility, adaptation and skills acquisition. Policies supporting broad access to loans for small businesses, financing housing, retirement savings and property rights of employees help democratization generate wealth and share profits from income from technical progress of the economy and its accumulated capital. The accompanying wealth effect stimulates consumption and domestic demand in the same way.

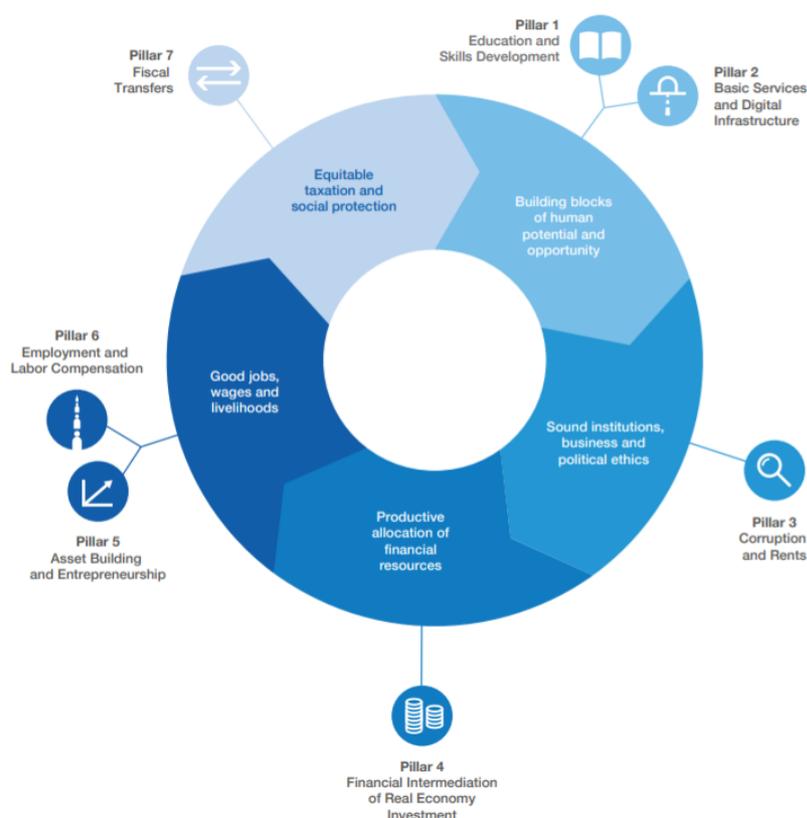


Figure 2- elaboration of *The Virtuous Circle of Inclusive Growth and Development* from *The Inclusive Growth and Development Report 2017*

If these key factors are present, a strong entrepreneurial and investment culture consolidates, promoting competitive industries and high-quality employment opportunities which will support domestic demand. Strong domestic demand stimulates further investments and economic growth thanks to an efficient and fair taxation system, which generates additional public resources needed to increase investment in the quality of basic services in the country, infrastructure and social security - even greater opportunities for development and production economy.

Each pillar created a database of transnational statistical indicators that allow comparison with the pillar, sub-pillar, and the level of the peer group. These Political and Institutional Indicators (PIIs) provide a clear profile of the institutional strength of each country and the use of the political space in relation

to its peers. These national benchmarking profiles mirror the structural policy of each country and led to a favourable institutional environment, because they relate to their ability to capture synergies between growth and social integration. They show the distance from the best practices. The results were presented in four groups of countries based on the level of economic development measured by national income.

The tables 18, 19, 20, 21, 22, 23, 24 and 25 in the Appendix show the four groups of countries (advanced economies, upper middle-income economies, lower middle-income economies, low income economies), comparing the results of the pillar and sub-pillar with each country by means of a traffic light shading system that classifies countries in relation to their group. Red corresponds to the lowest relative performance in the group, yellow to median and dark green for best performance.

Economic dynamism and growth promotion must be central argument while talking about inclusive growth and development and so must be reflected on the specific benchmarking indicators and on the set of policies and institutions.

An inclusive growth strategy can only be effective if it reinforces, or at least does not undermine, incentives to work, save, and invest.

While talking about inclusive growth there is not just one ideal policy mix, but it's most important to look at the Framework as an integrated system which has to be developed and improved in order to adjust any weaknesses.

As results of Policy and Institutional Indicator data highlighted are:

- larger fiscal transfers are sometimes compatible with long-term growth and competitiveness, but they also not the first or most effective viable solution for broadening socioeconomic inclusion;

- there is no such incident trade-off in economic policymaking between the promotion of social inclusion and that of long-term economic growth and competitiveness;
- high-income countries' policies and institutions are not the only ones supporting social inclusion;
- from a practical and data-driven point of view, the current debate on inequality and social inclusion is overly tense and unnecessarily polemized. It is also possible to be pro-business and to support the strengthening of both social inclusion and market efficiency, attracting more attention to the institutions.

Other actions that are not traditionally considered for business investment and entrepreneurship in the real economy may be just as important for a country's success in expanding employment, increasing wages and increasing the accountability of resources that are the key to improving living standards.

The effects of reduction and levelling of technologies increase performance and innovation. But while digitization in particular will continue to create enormous challenges for many industries and countries, it will also be able to create diverse opportunities for new business and small business transactions by reducing barriers to entry and transaction costs as well as disintermediating and unbundling existing activities performed by larger organizations, including international trade.

Moreover, with manufacturing productivity improvements of productive productivity and the aging society, the market for services will expand generating opportunities for small-business ownership and asset building. Improving the regulatory and financial environment for management and investment in a small business can help a larger proportion of the working population to capture a larger

share of these gains through profits and equity appreciation that can drive ownership of businesses.

Likewise, in the current more competitive and technologically dynamic international environment, the effectiveness of private investment in the real economy is a determining factor in a country's ability to sustain productive industrial employment. We talk about the cost, patience and range of risk capital available for long-term investments in terms of production capacity and productivity improvements.

Other critical determinants of the number and quality of job opportunities include the quality and cost of basic infrastructure and services which connects goods to markets and provide jobs to people, as well as the extent of deadweight losses for economic efficiency and innovation in the form of corruption and rents.

Improving a favourable environment in these areas must be seen as an integral part of building a more inclusive model of economic growth as an effort to improve skills or fiscal transfers.

## **2.5 Inclusive Development Index.**

Until now we have seen how economic growth and social inclusion combined can gain a bigger synergy due to a net of structural policies and institutions.

Policy and Institutional Indicators (PIIs), included in The Inclusive Growth and Development Report 2017, describes the extent of institutional strength or policy space utilization in this regard relative to peers.

When *GDP* is not involved in the measuring of national economic performance then new expanded performance metrics needs to be developed.

In addition to the National KPI described on page 37, a composite index has been calculated ranking countries based on their combined scores: *Inclusive Development Index (IDI)*.

The IDI offers mixed and international rankings both in terms of absolute performance and the latest five-year trend. Countries are divided into two different datasets, advanced economies and emerging economies. The outcome is an index which represents a clearer picture of the relative economic development level with respect to the one involving only GDP, especially if it is to serve the ultimate goal of sustained development, broad-based advancement of living standards rather than just the trend in the production of goods and services.

If the absolute IDI ranking of a given country shows its level (or cumulative result) of inclusive development, its trend ranking provides a window on recent results (typically the average rate for the last five years). This is the most useful indicator for governments and stakeholders who wish to assess the impact of changes in the medium-term policy, that is to say for a typical political cycle.

The results of the IDI ranking are what is closest to the key performance indicators that companies and other organizations usually check to track how much the implementation of the strategy is effective.

Tables 26, 27, 28, 29 and 30 in the Appendix present IDI country ranking and highlights the differences between this new composite indicator and the traditional ranking of countries by GDP per capita.

By data analysis, the following remarks emerged:

- there is no receipt for a single ideal policy mix to pursue inclusive growth, since national economy is extremely complex and it shapes the country in a peculiar, non-comparable way. it is more useful to look at this framework as a basic structure that needs to be fed both with the growth and

development process and with constant updates that need to highlight the weaknesses that have emerged;

- socioeconomic inclusion does not necessarily benefit from larger migrations in a long-term aim for growth and competitiveness, but at the same time these fiscal transfers do not have a negative impact on the previously mentioned goals. An example are those competitive countries in which social protection (and therefore the weight of tax on the citizen) is particularly high; moreover, the reason why many countries have low *Gini* ratios is to be found in their pre-transfer levels of inequality, rather than in the post-transfer ones;
- absolute scores of three among the four income groups of countries (advanced economies, upper middle income, lower middle income, low income) are overlapping, which means that not only high-income countries can afford policies of social inclusion; to bear in mind that these groups have been examined taking into consideration the sub-pillars of Business and Political Ethics, Tax Code, Financial System Inclusion, Intermediation of Business Investment, Productive Employment, Concentration of Rents, and Educational Quality and Equity;
- up-skilling of labor and redistribution may be valuable solutions in order to increase dispersion of incomes for many countries, but a long-term planning of inclusive growth enhances both labor and business and therefore could be critical in pursuing an increase in employment, wages and asset ownership as an improvement in broad living standards.

## **2.6 From Framework to action.**

Policy and Institutional Indicators (PIIs, policy framework and metrics) together with the National KPI Dashboard and the Inclusive Development Index (IDI,

performance metrics) aims to provide instruments that can help countries make of inclusive growth a measurable action plan.

Clearly, these parameters have their limits and the decisions on which elements are more important than others have remained to the user (the tables showed consider each indicator in an equivalent way).

But at the same time, they reflect a more integrated and complete picture than the per capita conventional GDP metrics, especially if the main objective has been so often said by different stakeholders during last years: to achieve a more socially-inclusive model of economic growth and development.

If major economies would reflect and take actions out of its beforementioned indicators would open the way to the global economy which currently is in slow growth, with an in-country inequality, and eroding public support for international integration.

Many countries have considerable untapped potential to increase economic growth and social equality. However, the most effective activation of a virtuous circle of inclusive growth requires:

- 1) re-conceptualization of domestic structural reform as a continuous systemic process that involves a multidisciplinary set of supply and demand factors that which support economic opportunities spread and national income, thus deepening the foundations and expanding the basis for growth;
- 2) underlining the construction of this broader structural policy and an institutional ecosystem, as usually is done in the case of macroeconomic, financial and commercial supervision policies, which mainly concern the efficiency and economic activity level.

Reformulating political priorities in this way would mean a deep change for many countries and even for the growth model that has been introduced to the generation

by most political economic institutions, including large international organizations.

A broad ecosystem of structural policies and institutional capabilities supports the ability of modern market economies to spread the benefits of national income growth within the society in the form of broad-progress in living standards. It is the "*income-distribution system*" of a modern, large-scale market economy. Its strength determines how effective the government is in shaping the inclusiveness of growth. Tax transfers and higher education are important, but they are only two much broader ranges of policy levers. Over the last two decades, this situation deteriorated or has been flat in different developing countries, since the forces that promote intensified secular dispersion, such as technological change, global integration, national deregulation and increased immigration, have strengthened. Many developing countries lagged behind in building their basic elements when they began to industrialize and integrate with the global economy, losing the ability to include more of their people in the growth process and its benefits.

Efficient markets and macroeconomic stability are essential to economic growth. Thus, the society benefits from growth in the extend of it follows:

- rules' frameworks, incentives, and institutional capabilities that shape the formation of human's capital quality and equity;
- the level and patience of real economy investment;
- the pace and breadth of innovation;
- the effectiveness and flexibility of worker protections;
- the coverage and adequacy of social insurance systems;
- the quality and breadth of access to infrastructure and basic services;
- the probity of business and political ethics;

- the breadth and depth of the household.

In order to take counteractions against deceleration growth and rising inequality, governments must recognize and then rebalance policy priorities.

Is implicit in terms of underdevelopment, but this is more a lack of attention rather than an iron law of capitalism.

Inequality is more an endogenous challenge and not exogenous to policymakers and must be considered and prioritized in order to maintain public confidence in the capacity for technological progress and international economic integration, with the goal to sustain rising living standards tenor of life for everyone. For many countries, the process of structural reforms aimed at broadening the basis and benefits of growth may also be the most suited way to accelerate their pace in such context. For example, in developed countries with decreasing returns resulting from extraordinary monetary policy measures, limited fiscal space and unfavourable demographic trends (for example in Japan, the United States and the EU at various levels), the combination of structural reforms of supply and demand can stimulate the consumption and job creation in the short term, while increasing long-term growth potential of the economy through constant improvement in labor productivity, household finances, investment in the real economy and innovation.

In conclusion, strengthening the inclusive institutional policy and the inclusive institutional ecosystem which support inclusive growth must be a priority as a political direction for countries, no matter is they are facing a slow growth, inequality, or both, if they also want to survive the fourth industrial revolution. The debate on how countries can prevent further job losses and the concentration of wealth that could otherwise accompany the spread the most advanced technologies had quickly assimilated the idea of a universal basic income.

Some versions of universal basic income can be part of an appropriate policy response. It is unlikely to make it effective or feasible due to the taxation that can result from, or aspects of social inclusion which cannot be fully taken into account, such as a sense of dignity and satisfaction that come from being a part of the growth process by having a good job or the opportunity to start a business. Once again, a systematic approach can be more effective. In particular, five dimensions of workforce development and security deserve special attention in the industrialized countries that are trying to keep up with the labor market challenges which come with the fourth industrial revolution.

Policy and Institutional Indicator (PII) data suggest that few countries, if any, are performing well across all five indicators, which can be summarized in:

1. active labor-market policies;
2. equity of access to quality basic education;
3. gender parity;
4. non-standard work benefits and protections;
5. school-to-work transition.

A universal basic income cannot replace these five key institutional pillars of a well-functioning labor market. At some point it could be a useful complement, but the countries that are trying to skill their employees for the fourth industrial revolution should consider investing entirely the environment. Countries which are behind in most of these sectors should establish national target and public-private implementation and also increase investment in their populations. Increased infrastructure investments have also proved to be an important policy option to respond to slow growth and increasing inequality. But it can't be enough: countries in various stages of development have long underestimated the infrastructures. Especially in developed countries, the main motivation for

reversing this trend is the macroeconomic situation: providing a short-term incentive to create jobs and aggregate demand.

While this may be useful to increase infrastructure investments in some countries, in general should be a secondary logic. A well-organized and sustainable infrastructure investment program is based on increasing the potential growth and quality of life in the economy. It increases economic efficiency, deadweight losses in terms of productivity and overall improves people's well-being over time. It can also create short-term macroeconomic benefits or risks depending on the conditions of the economy.

Extractive institutions, as seen in chapter 1, are not favourable upon investment in broad areas.

Above all, however, infrastructure investment must be seen as a structural element of a strategy to achieve a sustainable improvement of the standards of economic efficiency and of life in general over time, and not a simple tactic that will boost the economy and accelerate the production in the short-term period, as aimed by inclusive institutions.

Thinking about an internal structural reform as a continuous systemic process that involves a wider range of factors in the demand-supply side affecting the growth model and diffusion of benefits would result in a deep change of the growth model of most of the that shapes the way of acting of economic-policy establishments, as well as large international organizations. According to The Inclusive Growth and Development Report 2017, *“This revision of structural economic policy is the key to translating inclusive growth from global aspirations to global action”*.

As such, international cooperation can help individual countries and the global economy to reach this result.

Firstly, more economies would concert efforts to promote global growth by identifying and implementing the more urgent structural reforms in order to relish inclusive growth in their economies built on inclusive institutions.

Secondly, international organizations and governments should follow the main movement aiming to promote social integration of growth across the world, to accept this change and redefining structural economic policies in their public stands, councils and development cooperation programs.

Thirdly, significant improvements would be necessary in three specific areas of international economic cooperation, so that inclusive growth includes would scale the whole global economy:

1. increase the absolute and relative amount of development aid which helps countries to implement structural and institutional improvements on the demand and supply side, which in result would increase public participation in the process and the benefits of growth;
2. shift the emphasis of development finance institutions from direct lending to catalyzing much larger amounts of blended, public-private financing for development, particularly for sustainable infrastructure;
3. rethink international trade and investment cooperation priorities.

Promising opportunities in this area have been carried out through a broad multi-stakeholder strategic review on trade policy and institutional solutions co-organized by the Forum and the International Center for Trade and Sustainable

---

Development, E15 Project<sup>19</sup> started in 2011. In its January's volume the report highlights four sets of recommendations which are crucial for inclusive growth:

a) significantly increase trade and employment in the trade through small businesses;

b) facilitate not only the reduction of barriers to trade in services (which often require a lot of work), but also increase investment in industrial value chains (in which relatively few developing countries participate to a large extent);

c) support the equalization of social and environmental practices in these international production networks, in order to maximize the benefits of sustainable and inclusive growth in developing countries and minimize concerns in developed countries of a global race to the bottom in social protections;

d) modernize and harmonize international investment and regional trade agreements to enhance their contribution to sustainable development, simplify commercial activities in different jurisdictions and reduce discrimination against small countries, especially those that are not part of the main regional agreement.

## **2.7 What needs to be corrected.**

Rebalance old structured growth models, promote a renewed assessment of the key role of a broad ecosystem of structural policies and institutions, both in terms of supply and demand, diffuse opportunities, income, security and quality of life while strengthening its persistence and growth rates are more systematic approach against inequality which needs a new growth strategy and a wider set of

---

<sup>19</sup> The International Centre for Trade and Sustainable Development (ICTSD) is an independent think-and-do-tank, engaged in the provision of information, research and analysis, and policy and multi-stakeholder dialogue, as a not-for-profit organisation based in Geneva, Switzerland. Established in 1996, ICTSD's mission is to ensure that trade and investment policy and frameworks advance sustainable development in the global economy.

parameters that reflect the bottom-line of national economic policy: sustainable and broad progress in living standards.

This new growth and development program requires involvement in activities at national and international levels. Governments, with international organizations' and other stakeholders' support, should use this new framework and parameters to develop national programs to eliminate identified shortcomings in particular regarding large investments in productivity, wages and security.

The international community should strengthen these efforts at national level by funding a significant increase in institutional assistance for developing countries in relevant policy areas. It should also reform the financial institutions for development to support the redefinition of joint public-private funding for sustainable infrastructures in order to promote the overall implementation of the Paris Agreement and progress towards the implementation of the SDGs. The international community should reset the priorities of trade investment cooperation that would increase global economic growth and social justice.

A global initiative coordinated in this direction is needed to transform inclusive growth from aspiration to action - in a program that places people and living standards at the heart of national economic policy and international economic integration, and this effort to change the assumptions and priorities of how modern market economies are organized to generate socio-economic progress can be achieved only through the involvement of all stakeholders. This requires a collective effort for faster response and responsibility in economic leadership by the government and business leaders.

### **3 Product Market Regulation.**

In Chapter 1, economic and political institutions were described as the pillars for inclusive and sustainable growth, which has been subsequently dealt in Chapter 2.

Another fundamental aspect when talking about inclusive institutions is their pro-competition extent and vision of the economy

Pro-competition regulation in product markets would help improving living standards. In fact, studies have shown that competition can increase the output per capita by increasing investment and employment while encouraging companies to be more innovative and efficient, and thus increase productivity.

During the last decades, countries have gradually removed poorly designed regulations on product markets, reducing state involvement in economic sectors, helping entrepreneurs to create businesses, expanding and facilitating the entry of foreign products and companies.

In order to measure a country's regulatory stance and track reform progress, the OECD established in 1998 the so called Product Market Regulation (PMR) indicator, which has been updated in 2003, 2008 and 2013.

The economy-wide Product Market Regulation indicator is complemented by a set of indicators that measure regulation at the sector level. These indicators of Non-Manufacturing Regulation (NMR) cover seven network sectors and five services sectors.

This argument will be carried out in Chapter 3 as follows:

- 13.paragraph 3.1: the PMR indicator;
- 14.paragraph 3.2: the NMR indicators;
- 15.paragraph 3.3: comments on results;

16.paragraph 3.4: PMR and recent reforms;

17.paragraph 3.5: PMR reforms and the future.

### **3.1 The PMR indicator.**

The OECD's PMR database contains a large amount of information on regulatory structures and policies that are collected through a questionnaire sent to governments in OECD and non-OECD countries.

The 2013 questionnaire contains around 1400 questions on economy-wide or industry-specific regulatory provisions.

A bit more than 700 of the questions are used to compute the economy-wide PMR indicator and the NMR indicators on sector regulation.

Questions are all in a closed form that can be answered with numerical values or by selecting an answer from a pre-defined list.

The qualitative information is transformed into quantitative information by assigning a numerical value to each possible response to a given question.

Then, the coded information is normalised over a 0-6 scale, where a lower value reflects a more competition-friendly regulatory stance.

The values that are missing are compiled with 2008 data but when this is not possible the question is skipped during the calculation of the indicators and aggregation is performed in all available data points. Because too many missing values distort the image, the indicators are calculated only if the overall coverage rate is at least two thirds.

The PMR indicator is built by using a bottom-up method.

In the first phase, the numerical values assigned to each question are summarized in 18 low-level indicators. These low-level indicators are then aggregated into seven medium-level indicators, which in turn are aggregated into three high-level indicators.

At each aggregation phase, complex indicators are calculated as weighted averages of their components. The aggregate PMR indicator is a simple average between three high-level indicators of *state control*, *barriers to entrepreneurship* and *barriers to trade and investment*.

The 18 low-level indicators are the following:

1. *scope of state-owned enterprises (SOEs)*: ubiquity of state properties in 30 sectors measured as the share of sectors in which the state controls at least one company;
2. *government involvement in network sectors* (electricity, gas, rail transport, air transport, postal services and telecommunication);
3. *direct control over business enterprises*: government involvement in privately-owned firms with special voting rights and constraints to the sale of government stakes in publicly-controlled firms (based on 30 business sectors);
4. *governance of state-owned enterprises*: degree of insulation of state-owned enterprises (SOEs) from market discipline and degree of political interference in the management of SOEs;
5. *price controls*: air transport, road freight transport, retail distribution, telecommunication, electricity, gas, water, professional services sectors involved;

6. *command and control regulation*: how the government uses coercive regulation;
7. *licenses and permits system*;
8. *communication and simplification of rules and procedures*: the government's communication strategy and efforts to reduce and simplify bureaucracy;
9. *administrative burdens for corporations*;
10. *administrative burdens for sole proprietor firms*;
11. *barriers in services sectors*: presence of entry barriers in professional, transport and retail distribution services;
12. *legal barriers to entry*: presence of barriers to entry in 30 business sectors in which there are explicit legal limitations on the number of competitors;
13. *antitrust exemptions*: scope of exemptions from competition law for public enterprises;
14. *barriers in network sectors*: entry barriers in 8 network sectors (gas, electricity, water, rail transport, air transport, road freight transport, postal services and telecommunication) and degree of vertical separation in 3 network sectors (gas, electricity and rail transport);
15. *barriers to FDI*<sup>20</sup>;
16. *tariff barriers*: simple cross-product average of effectively applied tariffs;

---

<sup>20</sup> FDI, Foreign Direct Investment.

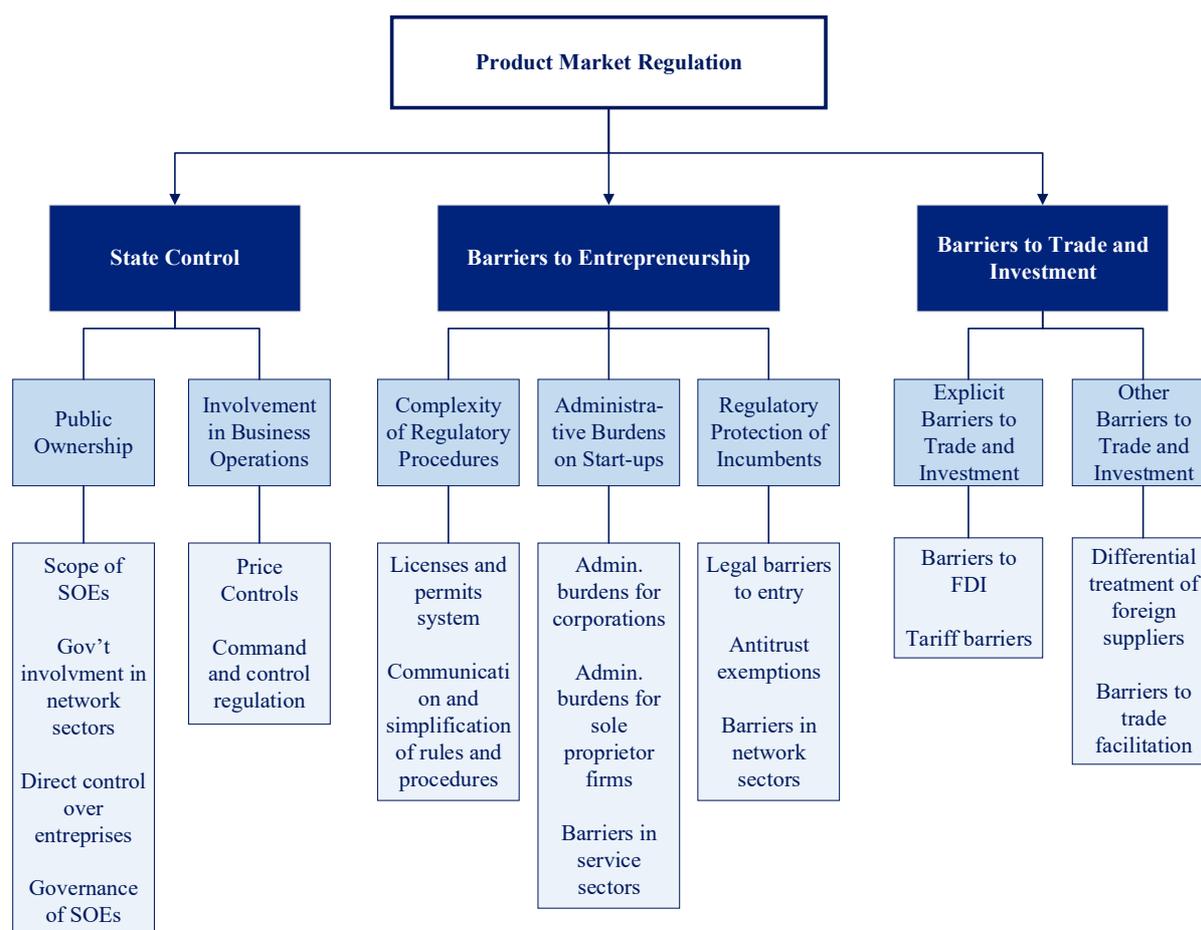


Table 3: elaboration of Tree structure of the economy-wide PMR indicator from The 2013 Update of the OECD's Database on Product Market Regulation

17. *differential treatment of foreign suppliers*: discrimination of foreign firms with respect to taxes and subsidies, public procurement, entry regulation and appeal and procedures;
18. *barriers to trade facilitation*: recognition of foreign regulations, use of international standards and international transparency of domestic regulation.

## The NMR indicators.

Indicators on the electricity, gas, rail transport, post and telecom sectors, are not part of the economy-wide PMR indicator since the latter focus solely on policy settings. The 7 indicators of regulation in network sectors are aggregated into one indicator of energy, transport and communications regulation (ETCR).

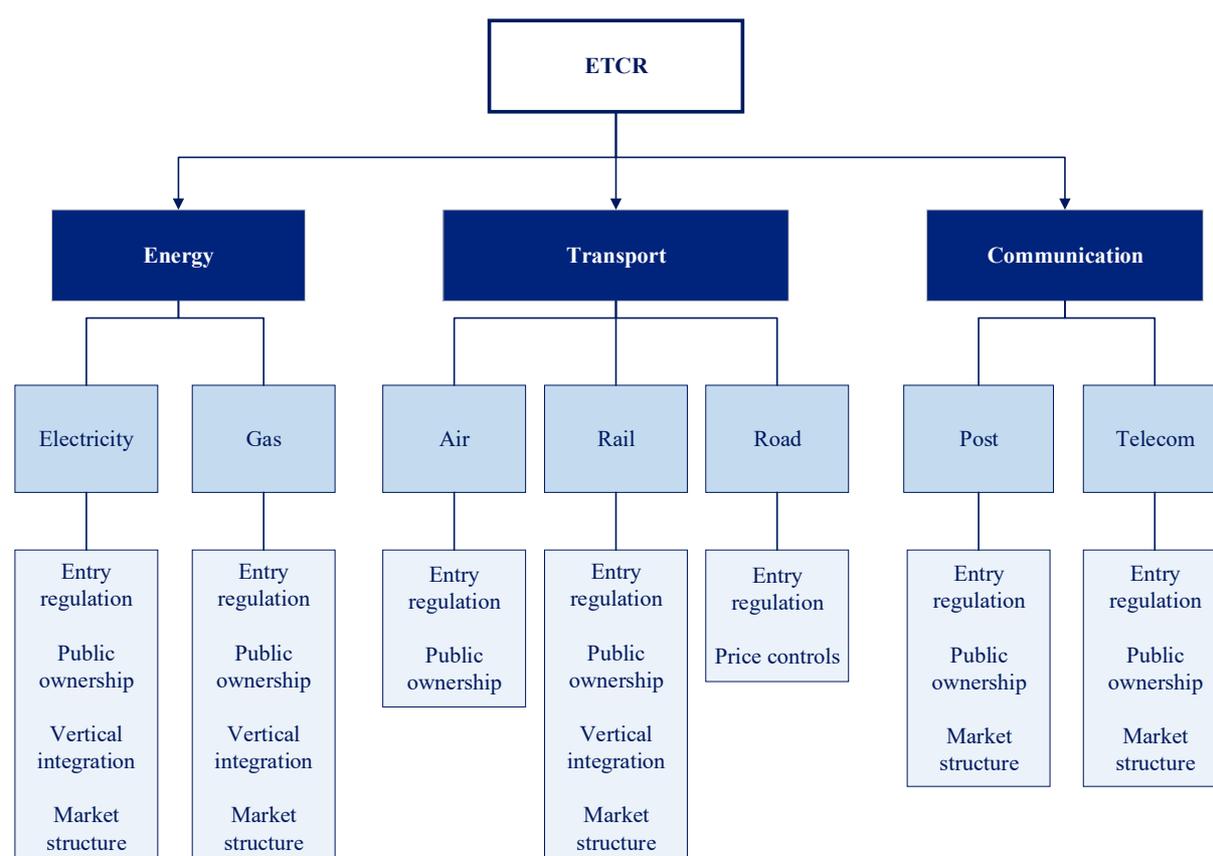


Table 4: elaboration of Tree structure of the NMR indicators - ETCR (energy, transport and communication sectors) - from The 2013 Update of the OECD's Database on Product Market Regulation

The 4 indicators of regulation in accounting, legal, engineering and architectural services are aggregated into one indicator of regulation in professional services.

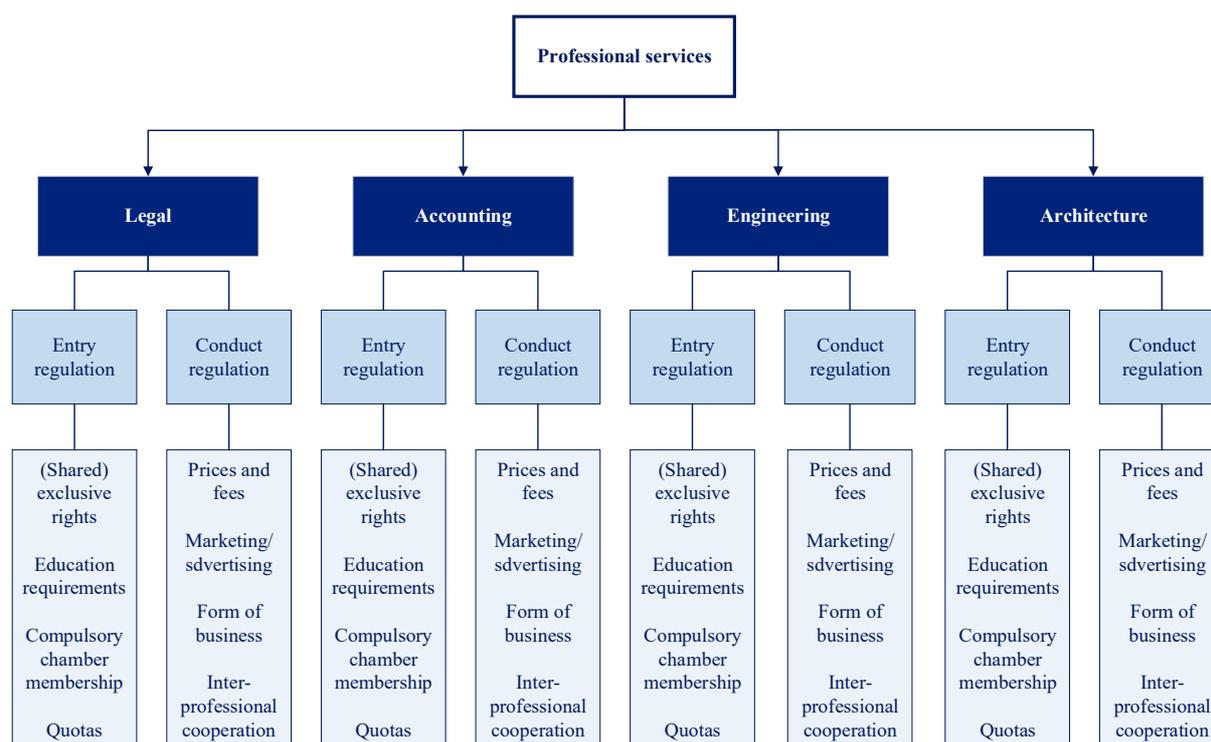


Table 5: elaboration of Tree structure of the NMR indicators - Professional services sectors - from The 2013 Update of the OECD's Database on Product Market Regulation



Table 6: elaboration of Tree structure of the NMR indicators - Retail distribution sector - from The 2013 Update of the OECD's Database on Product Market Regulation

**Comments on results.**

In the figures below are shown the results for individual countries from the compilation of the 2013 of the overall PMR indicator and for high-level indicators of state control, barriers to entrepreneurship and barriers to trade and investment.

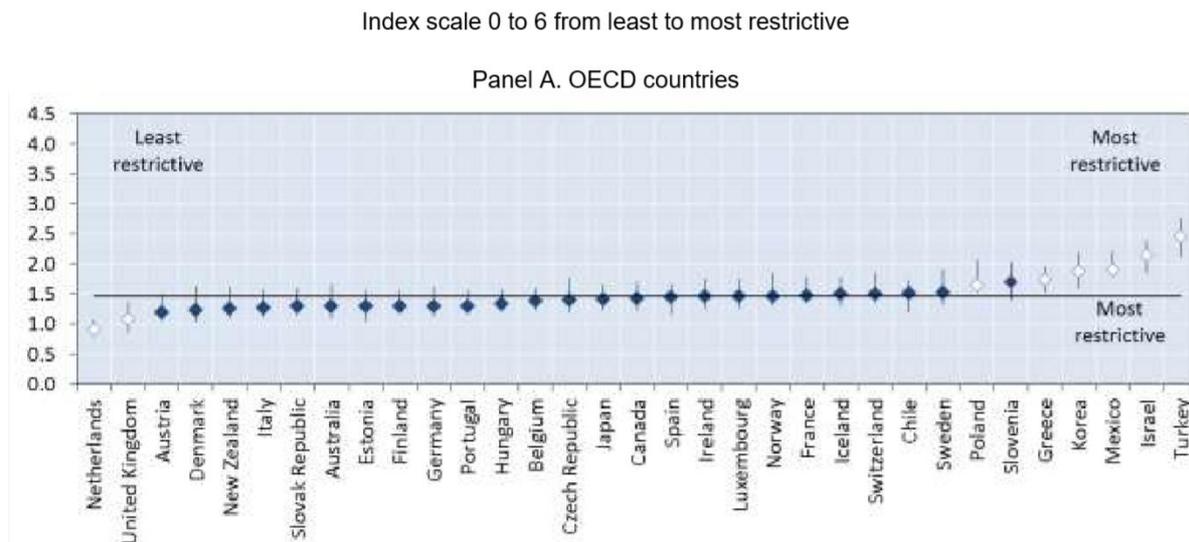


Figure 3: Economy-wide PMR score in 2013 - Source: The 2013 update of the OECD's database on product market regulation

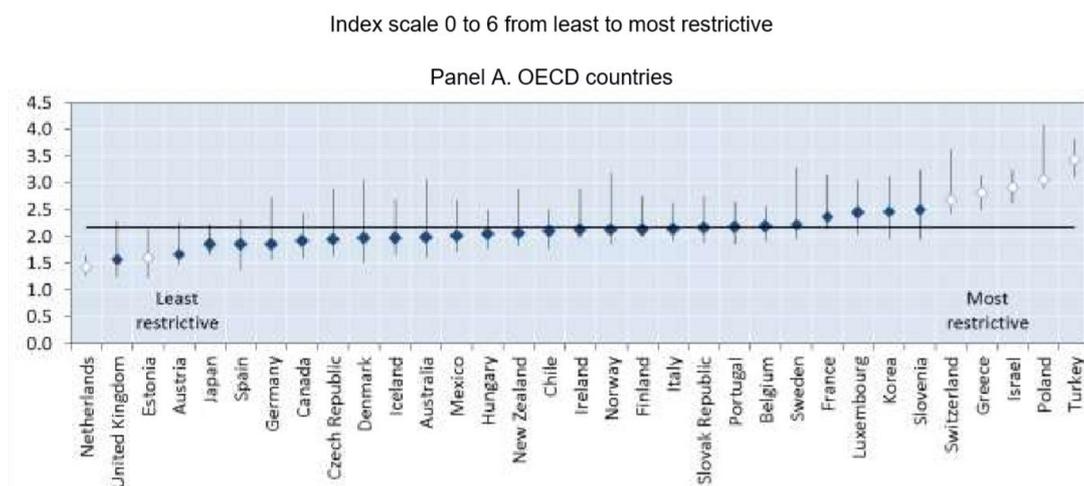


Figure 4: State control in 2013 - Source: The 2013 update of the OECD's database on product market regulation

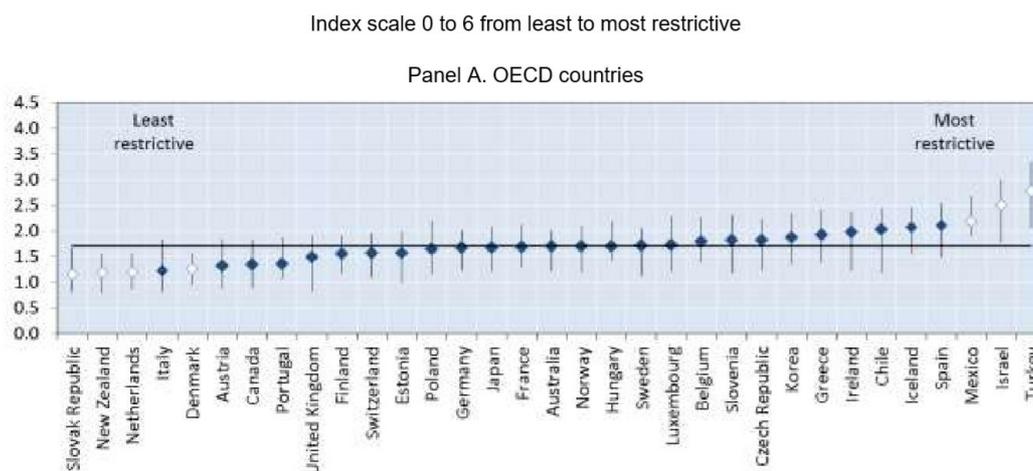


Figure 5: Barriers to entrepreneurship in 2013 - Source: The 2013 update of the OECD's database on product market regulation

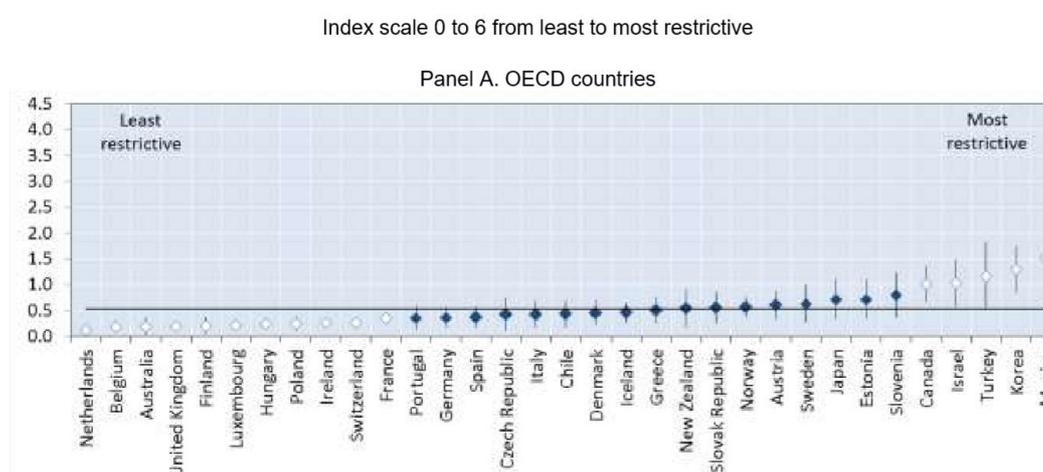


Figure 6: Barriers to trade and investment in 2013 - Source: The 2013 update of the OECD's database on product market regulation

Considering the uncertainty associated with the choice of the weighing scheme, the results indicate a similar general regulatory position in most countries. However, based on the values of the indicators, countries can be divided into three large groups: those with a value below the transnational average, those that cannot be significantly differentiated from the mean and those above the average.

PMR is much more competitive than the average OECD country in Netherlands and UK, while in Poland, Greece, Korea, Mexico, Israel and Turkey are much less competitive.

The remaining group of OECD countries has a regulatory position close to the OECD average, albeit to a different extent based on certain estimates.

The breakdown of the overall PMR indicator in the three high-level areas suggests that regulations hostile to competition higher in the areas of state control and obstacles to entrepreneurship than in the case of barriers to trade and investment.

The OECD average is equal to respectively 2.2 and 1.7 for the former two components, while it is equal to 0.5 for the latter component. Within the state control component high scores are primarily driven by public ownership of firms in business sectors (in particular in network sectors) and the poor governance of these firms. To sum up, a suggestion should be made regarding all elements that are intended to streamline and simplify the decision-making process in relation to services and services, and to facilitate and improve data registration.

The position of the countries varies among the three main indicators. For example, UK, Netherlands and Estonia have a lower level of state control than other OECD countries, while Slovak Republic, New Zealand, Netherlands, Italy and Denmark have the lowest barriers to entrepreneurship.

Barriers to foreign trade and investment are low in many countries especially in the Netherlands, Belgium, Australia and UK.

Among the network sectors, electric, gas and rail transport values have an average between 2.5 and 4. However, in the telecommunications, road and air sectors, regulations are more favourable to competition. For these three sectors, the national average is maximum 2.

The OECD countries with the lowest average score in the seven network sectors are UK, Germany and Australia, while Slovenia, Mexico and Turkey have the highest score.

Indicators for professional services include accounting, legal services, engineering and architecture. Of these four professions, accounting and legal professions are the most regulated in OECD countries with an average result of 2.3 and 3.0, respectively, and 1.3 and 1.6 for engineering and architecture. For retail trade the average score across countries amounts to 2.0 for the OECD group.

### **3.2 PMR and recent reforms.**

In the last 15 years, OECD countries have significantly liberalized their product markets. The reforms have been greater in the initial period. In 1998-2003, the average PMR decreased by 0.43, down from the 0.19 between 2003 and 2008, and only 0.12 from 2008 to 2013. The slowdown in the pace of reforms may be due to the fact that countries have known that best practice and further liberalisation has become harder over time. However, it may also be a sign that countries have moved away from market-friendly regulations and practices.

The detailed results of the countries show how different OECD countries have implemented important reforms over the past 5 years, often as an answer to economic crisis. Countries with major PMR results are Greece (-0.47), Portugal and Poland (-0.40) and Slovak Republic (-0.33). In Italy and Spain, which have been under strong pressure in the structural reforms market since 2011, progress has been more modest and were by 0.22 and 0.15 respectively.

In the meantime, other countries have introduced laws that could impede competition. In the years 2008-2013, the overall result of the PMR increased in almost a tenth of all OECD countries.

However, the increase in the total result of the PMR is mostly small, below 0.15.

Country	1998	2003	2008	2013	Country	1998	2003	2008	2013
Australia	1.72	1.34	1.46	1.29	Spain	2.39	1.79	1.59	1.44
Austria	2.12	1.61	1.37	1.19	Sweden	1.89	1.50	1.61	1.52
Belgium	2.30	1.64	1.52	1.39	Switzerland	2.49	1.99	1.55	1.50
Canada	1.91	1.64	1.53	1.42	Turkey	3.28	2.82	2.65	2.46
Chile	.	.	1.75	1.51	United Kingdom	1.32	1.10	1.21	1.08
Czech republic	2.64	1.88	1.50	1.39	United States	1.50	1.30	1.11	.
Denmark	1.66	1.48	1.35	1.22	Brazil	.	.	2.54	2.54
Estonia	.	.	1.37	1.29	China	.	.	3.17	2.86
Finland	1.94	1.49	1.34	1.29	India	.	.	3.40	3.10
France	2.38	1.77	1.52	1.47	Indonesia	.	.	2.42	.
Germany	2.23	1.80	1.41	1.29	Russia	.	.	2.69	2.22
Greece	2.75	2.51	2.21	1.74	South Africa	.	.	2.65	2.21
Hungary	2.66	2.11	1.54	1.33	Argentina	.	.	.	3.11
Iceland	2.03	1.62	1.48	1.50	Bulgaria	.	.	.	1.57
Ireland	1.86	1.58	1.35	1.45	Colombia	.	.	.	1.77
Israel	.	.	2.23	2.15	Costa Rica	.	.	.	2.43
Italy	2.36	1.80	1.49	1.26	Croatia	.	.	.	2.08
Japan	2.11	1.37	1.43	1.41	Dominican Rep.	.	.	.	2.26
Korea	2.56	1.95	1.94	1.88	El Salvador	.	.	.	1.99
Luxembourg	.	1.60	1.44	1.46	Honduras	.	.	.	2.90
Mexico	2.76	2.50	2.05	1.91	Jamaica	.	.	.	2.41
Netherlands	1.82	1.49	0.96	0.92	Latvia	.	.	.	1.61
New Zealand	1.45	1.29	1.23	1.26	Lithuania	.	.	.	1.52
Norway	1.87	1.56	1.54	1.46	Malta	.	.	.	1.57
Poland	3.19	2.42	2.04	1.65	Nicaragua	.	.	.	2.00
Portugal	2.59	2.12	1.69	1.29	Peru	.	.	.	1.66
Slovak Republic	.	2.18	1.62	1.29	Romania	.	.	.	1.69
Slovenia	.	.	1.89	1.70					

Table 7: elaboration of the overall PMR indicator, from 1998 to 2013, index scale 0 to 6 from least to most restrictive - from The 2013 Update of the OECD's Database on Product Market Regulation

The reforms over the last 5 years have affected the three main regulatory areas covered by the indicators.

OECD countries have eased restrictions on trade and investment (as removing barriers to foreign direct investment and gradually eliminating the differentiated treatment of foreign suppliers). They have also eliminated barriers to entrepreneurship and 25 countries have reduced state control (in particular, by removing special voting and legal or constitutional restrictions on the sale of government actions and / or removing price controls or improving their design.

Advances in the transport, energy and telecommunications services sectors have slowed down. In the retail sector, last 5 years' reform pace has been very similar

to the one between 2003-2008, and even slightly accelerated in the postal sector and professional services. Accelerating the reform of the postal sector mainly reflects the implementation of the EU Postal Directive.

### **3.3 PMR reforms and the future.**

Although the OECD countries have introduced regulations on the market for products that are much more competitive than they have been in the last 15 years, there is still room for further improvements, particularly with state control and barriers to entrepreneurship.

Low-level indicators and detailed PMR data make it possible to assign regulatory domains in which reforms are the most urgent.

The average results in OECD countries for what concerns state control are still relatively high in relation to SOE components, government involvement in network sectors and enterprise property management. The first two components include public ownership as number of sectors in which governments control at least one company, and government participation in the largest enterprise in this sector.

While it may be prudent for the government to maintain a certain level of participation in specific sectors, they can reduce public ownership for example in wholesale and retail trade or the manufacture of petroleum products. Moreover, the management of state-owned enterprises can be also improved in many countries including them in joint-stock companies and reducing the government's commitment to making strategic decisions.

Talking about barriers to entrepreneurship, results are still relatively high compared to the barrier component in the service and in network industries sectors. To reduce administrative burdens and facilitate entry on the market in

terms of networks and services, countries can, for example, the licensing requirements in road freight transport and retail distribution sectors, control third-party access to gas networks (in the case of power grids is not the norm), ensure that rights to the extraction of water are transferable or at least transmit them through a competitive process, allow greater competition in rail transport, abolish the requirements of chamber membership in professional services and reduce the number of exclusive professions.

## **4 PMR and inclusive growth indicators analysis: data panel regression.**

In Chapter 1 is it possible to understand the difference between institutions, read how inclusive institutions are connected to inclusive growth (Chapter 2) and are pro-competition economy (Chapter 3). There are also other aspects which inclusive institutions carry about and have been as well already described in Chapter 1.

These aspects can be translated into variables. In particular, institutional variables and non-institutional variables.

Among the institutional variables we can distinguish some from the Worldwide Governance Indicators:

18. and economic efficiency (checks and balances, government effectiveness, business freedom, starting a business, property rights, regulatory quality, tax burden),
19. accountability (control of corruption, voice and accountability, government spending, political stability/no violence),
20. rule of law (police, law and criminality, impartial courts, government integrity, political rights, integrity of the legal system, property rights protection),
21. trade (freedom to trade internationally, export rate, import rate).

For the non-institutional variables we can recognize:

22. quality of life (poverty, prevalence of undernourishment, mortality),
23. employment (decent work and employment ratios),
24. education (participation in education).

More an institution is inclusive the more it will tend to maximize government's and economic's efficiency, to be accountable, respect the rule of law and open to trade. Moreover, it would reduce poverty, undernourishment and mortality rates, it will create solutions for higher employment levels and would provide education for its citizens.

For the purpose of this paper, in Chapter 4 PMR indicators have been analyzed and computed in an edited way with data collected from The World Bank Data, The Fraser Institute and The Heritage Foundation. There has been processed around 6000 data.

Results show how PMR and the above mentioned indicators affect and follow the same trajectory.

In particular, Chapter 4 is structured as follows:

- 25.paragraph 4.1: the methodology;
- 26.paragraph 4.2: models and variables;
- 27.paragraph 4.3: results.

Paragraph 4.3 has been divided in sub-paragraphs. Hence, the sub-paragraphs are the following ones:

- 28.sub-paragraph 4.3.1: PMR data panel regression with institutional variables,
- 29.sub-paragraph 4.3.2: PMR data panel regression with non-institutional variables.

The sub-paragraphs have been further diversified in order to avoid loss of data due to the big data sample considered for the macro level data panel regression. Each micro set of data: government and economic efficiency, accountability, rule of law and trade for institutional variables and life quality, employment and education for the non-institutional variables, has been computed.

The structure is the following:

- 30.sub-paragraph 4.3.1.1: institutional variables macro level data panel regression;
- 31.sub-paragraph 4.3.1.2: micro level set: *government and economic efficiency* data panel regression;
- 32.sub-paragraph 4.3.1.3: micro level set: *accountability* data panel regression;
- 33.sub-paragraph 4.3.1.4: micro level set: *rule of law* data panel regression;
- 34.sub-paragraph 4.3.1.5: micro level set: *trade* data panel regression;
- 35.sub-paragraph 4.3.2.1: non-institutional variables macro level data panel regression;
- 36.sub-paragraph 4.3.2.1: micro level set: *life quality* data panel regression;
- 37.sub-paragraph 4.3.2.2: micro level set: *employment* data panel regression;
- 38.sub-paragraph 4.3.2.3: micro level set: *education* data panel regression;

#### **4.1 The methodology.**

In the literature, the econometric analysis has been divided into two main areas: the study of macroeconomic models based on temporal series of aggregated data on the one hand, and the modelling of microeconomic phenomena based on cross-section surveys on the other. Later, methodologies were developed to combine the two different approaches, with the aim of identifying the differences between the estimates obtained from cross-section analyses and time series on the same data. At a general level, data of type pooled or combined are defined for which the cross-section aspect is combined with that of the time series; in particular, when information is obtained on the same statistical units  $i = 1, \dots, N$  the so-called panel data are defined for a given number of time instants  $t = 1, \dots, T$ . A panel contains observations on multiple units, be they individuals, enterprises or states,

in which each entity is observed in two or more different time-frames. The advantage of the panel data is that it allows checking for variables that cannot be observed or measured, or for variables that vary between units but remain constant over time. The software used to perform the analysis is Stata.

The regression of the data panel differs from the traditional regression due to the double longitudinal and transversal dimension of the data, characterized both by the individual  $i$  and by the temporal instant  $t$ :

$$Y_{i,t} = \beta_0 + \beta_1 X_{i,t} + u_{i,t}$$

For more details and references regarding regression analysis with panel data: “Introductory Econometrics: a modern approach” di J.M. Wooldridge (2012).

To overcome the problems of heteroskedasticity and autocorrelation of the panel data, which risk violating the statistical assumptions necessary for the realization of a reliable inference, robust standard errors have been used to heteroscedasticity.

## 4.2 Models and variables.

The regression analysed with institutional variables is structured as follows:

$$\begin{aligned} Corr_{i,t} = & \beta_0 + \beta_1 PMR_{i,t} + \beta_2 CheckBalances_{i,t} + \beta_3 Gov\_effect_{i,t} \\ & + \beta_4 Business\_freedom_{i,t} + \beta_5 Starting\_business_{i,t} \\ & + \beta_6 Prop\_rights_{i,t} + \beta_7 Reg\_qlty_{i,t} + \beta_8 Tax\_burden_{i,t} \\ & + \beta_9 Corr\_ctrl_{i,t} + \beta_{10} Voice\_account_{i,t} + \beta_{11} Gov\_spending_{i,t} \\ & + \beta_{12} Pol\_stabViol\_abs_{i,t} + \beta_{13} Police\_law\_crim_{i,t} \\ & + \beta_{14} Impartial\_courts_{i,t} + \beta_{15} Gov\_integrity_{i,t} \\ & + \beta_{16} Political\_rights_{i,t} + \beta_{17} Legalsys\_integrity_{i,t} \\ & + \beta_{18} Prop\_rightsProtect_{i,t} + \beta_{19} Freedom\_intertrade_{i,t} \\ & + \beta_{20} Exp\_rate_{i,t} + \beta_{21} Imp\_rate_{i,t} \end{aligned}$$

The regression analysed with institutional variables is structured as follows:

$$\begin{aligned}
Corr_{i,t} = & \beta_0 + \beta_1 PMR_{i,t} + \beta_2 Pov\_ratio_{i,t} + \beta_3 Empl\_ratio_{i,t} \\
& + \beta_4 Undnour\_ratio_{i,t} + \beta_5 Prod\_empl1524_{i,t} + \beta_6 Prod\_empl15_{i,t} \\
& + \beta_7 Lab\_prod_{i,t} + \beta_8 Vuln\_emplF_{i,t} + \beta_9 Vuln\_emplM_{i,t} \\
& + \beta_{10} Mor\_rate5_{i,t} + \beta_{11} Mor\_rateAdultF_{i,t} \\
& + \beta_{12} Mor\_rateAdultM_{i,t} + \beta_{13} Life\_expF_{i,t} + \beta_{14} Life\_expM_{i,t} \\
& + \beta_{15} Mor\_neo_{i,t} + \beta_{16} Part\_eduPre_{i,t} + \beta_{17} Part\_eduPri_{i,t} \\
& + \beta_{18} Part\_eduSec_{i,t} + \beta_{19} Part\_eduTer_{i,t} + \beta_{20} Part\_eduPriNet_{i,t} \\
& + \beta_{21} Part\_eduSecNet_{i,t} + \beta_{22} Part\_eduPriAdjF_{i,t} \\
& + \beta_{23} Part\_eduPriAdjM_{i,t} + \beta_{24} Part\_eduAdol_{i,t}
\end{aligned}$$

Variable refers to nation  $i$  in time  $t$ .

The countries studied are the ones which belong to the OECD list:

OECD Countries		
Australia	Hungary	Norway
Austria	Iceland	Poland
Belgium	Ireland	Portugal
Canada	Italy	Slovak Republic
Czech Republic	Japan	Spain
Denmark	Korea, Rep.	Sweden
Finland	Luxembourg	Switzerland
France	Mexico	Turkey
Germany	Netherlands	United Kingdom
Greece	New Zealand	United States

Table 8: list of OECD countries examined for the purpose of this analysis

Some nations have been omitted in the study for lack of data<sup>21</sup>.

<sup>21</sup> Out of the 36 OECD member countries, due to the lack of data and the consequent impossibility to compute them for the PMR data panel regression, 6 countries have not been included in the study. Those are: Chile, Estonia, Israel, Latvia, Lithuania, Slovenia.

Below it's possible to find the list of variables studied and their meaning:

$PMR_{i,t}$  : PMR for nation  $i$  in time  $t$

$CheckBalances_{i,t}$  : check and balances for nation  $i$  in time  $t$

$Gov\_effect_{i,t}$  : estimate of government effectiveness for nation  $i$  in time  $t$

$Business\_freedom_{i,t}$  : score of business freedom for nation  $i$  in time  $t$

$Starting\_business_{i,t}$  : starting a business rank for nation  $i$  in time  $t$

$Prop\_rights_{i,t}$  : protection of rights to private property for nation  $i$  in time  $t$

$Reg\_qlty_{i,t}$  : estimate of regulatory quality for nation  $i$  in time  $t$

$Tax\_burden_{i,t}$  : score of tax burden for nation  $i$  in time  $t$

$Corr\_ctrl_{i,t}$  : control of corruption for nation  $i$  in time  $t$

$Voice\_account_{i,t}$  : estimate of voice and accountability for nation  $i$  in time  $t$

$Gov\_spending_{i,t}$  : score of government spending for nation  $i$  in time  $t$

$Pol\_stabViol\_abs_{i,t}$  : estimate of political stability and absence of violence/terrorism for nation  $i$  in time  $t$

$Police\_law\_crim_{i,t}$  : rule of law indicator for nation  $i$  in time  $t$

$Impartial\_courts_{i,t}$  : score of impartiality of a court for nation  $i$  in time  $t$

$Gov\_integrity_{i,t}$  : score of government integrity for nation  $i$  in time  $t$

$Political\_rights_{i,t}$  : political rights index for nation  $i$  in time  $t$

$Legalsys\_integrity_{i,t}$  : integrity of the legal system index for nation  $i$  in time  $t$

$Prop\_rightsProtect_{i,t}$  : degree of protection of property rights for nation  $i$  in time  $t$

$Freedom\_intertrade_{i,t}$  : score of freedom to trade internationally for nation  $i$  in time  $t$

$Exp\_rate_{i,t}$  : exports of goods and services (annual % growth) for nation  $i$  in time  $t$

$Imp\_rate_{i,t}$  : imports of goods and services (annual % growth) for nation  $i$  in time  $t$

$Pov\_ratio_{i,t}$  : poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population) for nation  $i$  in time  $t$

$Empl\_ratio_{i,t}$  : employment to population ratio, 15+, total (%) (modeled ILO estimate) for nation  $i$  in time  $t$

$Undnour\_ratio_{i,t}$  : prevalence of undernourishment (% of population) for nation  $i$  in time  $t$

$Prod\_empl1524_{i,t}$  : decent work and productive employment - Employment to population ratio (ILO estimates); % ages 15 - 24 (youth) for nation  $i$  in time  $t$

$Prod\_empl15_{i,t}$  : decent work and productive employment - Employment to population ratio (ILO estimates); % ages 15 + (total) for nation  $i$  in time  $t$

$Lab\_prod_{i,t}$  : decent work and productive employment - Labor productivity; GDP per person employed (% growth) for nation  $i$  in time  $t$

$Vuln\_emplF_{i,t}$  : decent work and productive employment - Vulnerable employment; % of female employment for nation  $i$  in time  $t$

$Vuln\_emplM_{i,t}$  : decent work and productive employment - Vulnerable employment; % of male employment for nation  $i$  in time  $t$

$Mor\_rate5_{i,t}$  : mortality - 5 mortality rate (per 1,000 live births); Total norm for nation  $i$  in time  $t$

$Mor\_rateAdultF_{i,t}$  : mortality - Adult mortality rate (per 1,000 adults); Female norm for nation  $i$  in time  $t$

$Mor\_rateAdultM_{i,t}$  : mortality - Adult mortality rate (per 1,000 adults); Male norm for nation  $i$  in time  $t$

$Life\_expF_{i,t}$  : mortality - Life expectancy at birth (years); Female norm for nation  $i$  in time  $t$

$Life\_expM_{i,t}$  : mortality - Life expectancy at birth (years); Male norm for nation  $i$  in time  $t$

$Mor\_neo_{i,t}$  : mortality - Neonatal mortality rate (per 1,000 live births); Total norm for nation  $i$  in time  $t$

$Part\_eduPre_{i,t}$  : participation in education - Gross enrolment ratio (% of relevant age group); Preprimary for nation  $i$  in time  $t$

$Part\_eduPri_{i,t}$  : participation in education - Gross enrolment ratio (% of relevant age group); Primary for nation  $i$  in time  $t$

$Part\_eduSec_{i,t}$  : participation in education - Gross enrolment ratio (% of relevant age group); Secondary for nation  $i$  in time  $t$

$Part\_eduTer_{i,t}$  : participation in education - Gross enrolment ratio (% of relevant age group); Tertiary for nation  $i$  in time  $t$

$Part\_eduPriNet_{i,t}$  : participation in education - Net enrolment rate (% of relevant age group); Primary for nation  $i$  in time  $t$

$Part\_eduSecNet_{i,t}$  : participation in education - Net enrolment rate (% of relevant age group); Secondary for nation  $i$  in time  $t$

$Part\_eduPriAdjF_{i,t}$  : participation in education - Adjusted net enrolment rate, primary (% of primary school-age children); Female for nation  $i$  in time  $t$

$Part\_eduPriAdjM_{i,t}$  : participation in education - Adjusted net enrolment rate, primary (% of primary school-age children); Male for nation  $i$  in time  $t$

$Part\_eduAdol_{i,t}$  : participation in education - Adolescent out of school (% of lower secondary school age) for nation  $i$  in time  $t$

The data above have been extrapolated from The World Bank Data<sup>22</sup>, The Fraser Institute<sup>23</sup> and The Heritage Foundation<sup>24</sup> and it hasn't been a random choice.

For the purpose of this paper, it is important to point out the main institutional variables areas that has been studied:

- *government and economic efficiency*, captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. When a well-functioning, perfectly competitive market is permitted to reach its equilibrium, the outcome is efficient. There are several indicators that ensure government and economic efficiency and government effectiveness, such as checks and balances which are various procedures set in place to reduce mistakes, prevent improper behaviour or decrease the risk of centralization of power. Checks and balances usually ensure that no one has absolute control over decisions, clearly define the assigned duties, and force cooperation in completing tasks. Moreover, a competitive market gives the chance to start businesses more easily;

---

<sup>22</sup> The World Bank collects and processes large amounts of data and generates them on the basis of economic models.

<sup>23</sup> The Fraser Institute is a Canadian think tank. It has been described as politically conservative and right-libertarian. Its stated mission is "to measure, study, and communicate the impact of competitive markets and government intervention on the welfare of individuals."

<sup>24</sup> Founded in 1973, The Heritage Foundation is a right-wing think tank. Its stated mission is to formulate and promote public policies based on the principles of "free enterprise, limited government, individual freedom, traditional American values, and a strong national defence". It is widely considered one of the world's most influential public policy research institutes.

- *accountability*, is acknowledged as an important element in good governance in the public sector. It covers many aspects including: the move from accounting to accountability; the need to increase transparency; the importance of the political interface; the distinction between internal and external accountability; the use of accountability information; the interaction of accountability systems with other systems to affect programme results; and more. In this paper we have included under the accountability voice the control of corruption, voice and accountability, government spending and political stability and absence of violence/terrorism;
- *rule of law*, captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence;

Most of the data belong to the collection of World Development Indicators, collected and stored by The World Bank Data and includes data spanning from 1960 to 2016.

In particular, all the World Development Indicators can be grouped as follows:

- *poverty and shared prosperity*, which presents indicators that measure progress toward the World Bank Group's twin goals of ending extreme poverty by 2030 and promoting shared prosperity in every country;
- *people*, which showcases indicators covering education, health, jobs, social protection, and gender and provides a portrait of societal progress across the world;
- *environment*, which presents indicators on the use of natural resources, such as water and energy, and various measures of environmental degradation, including pollution, deforestation, and loss of habitat, all of which must be considered in shaping development strategies;

- *economy*, which provides a window on the global economy through indicators that describe the economic activity of the more than 200 countries and territories that produce, trade, and consume the world's output;
- *states and markets*, which encompasses indicators on private investment and performance, financial system development, quality and availability of infrastructure, and the role of the public sector in nurturing investment and growth;
- *trade/global links*, which presents indicators on the size and direction of the flows and links that enable economies to grow, including measures of trade, remittances, equity, and debt, as well as tourism and migration;

For each of these groups the relative indicators have been decomposed into their components, and the most relevant components for the purpose of this paper have been analysed and included in the data panel modelling.

In order to understand the significance and impact of the indicators, the data panel modelling has been done either at a macro level, including all the data listed in the data panel regression, either at a micro level for each set mentioned above.

## 4.3 Results.

### 4.3.1 PMR data panel regression with institutional variables.

#### 4.3.1.1 Institutional variables macro level data panel regression.

The results of the institutional variables regression with panel data at a macro level, presented in the table below, show a particular statistical significance of the institutional variables  $Gov\_effect_{i,t}$ ,  $Starting\_business_{i,t}$ ,  $Reg\_qlty_{i,t}$ ,  $Corr\_ctrl_{i,t}$ ,  $Voice\_account_{i,t}$ ,  $Pol\_stabViol\_abs_{i,t}$ ,  $Impartial\_courts_{i,t}$ ,  $Legalsys\_integrity_{i,t}$ ,  $Imp\_rate_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = <b>0.7664</b>	min =		<b>4</b>
between = <b>0.7492</b>	avg =		<b>4.0</b>
overall = <b>0.7571</b>	max =		<b>4</b>
	Wald chi2(20)	=	<b>889.33</b>
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	<b>0.0000</b>

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
ChecksBalances	-.0106623	.0288377	-0.37	0.712	-.0671831	.0458585
Gov_effect	-.3625331	.1230988	-2.95	0.003	-.6038024	-.1212639
Business_freedom	.0025178	.0027892	0.90	0.367	-.002949	.0079846
Starting_business	-.0152133	.0049691	-3.06	0.002	-.0249525	-.0054741
Prop_rights	-.0014651	.0035927	-0.41	0.683	-.0085067	.0055765
Reg_qlty	-.3739501	.1161071	-3.22	0.001	-.6015158	-.1463843
Tax_burden	-.0039784	.004103	-0.97	0.332	-.0120201	.0040632
Corr_ctrl	.3217177	.1432463	2.25	0.025	.0409601	.6024753
Voice_account	-.5121085	.206532	-2.48	0.013	-.9169038	-.1073132
Gov_spending	.0009007	.0014402	0.63	0.532	-.001922	.0037235
Pol_stabViol_abs	.1611108	.0914475	1.76	0.078	-.018123	.3403445
Police_law_crim	.0898432	.1681954	0.53	0.593	-.2398137	.4195001
Impartial_courts	.1240955	.0343788	3.61	0.000	.0567143	.1914767
Gov_integrity	-.0058042	.0044716	-1.30	0.194	-.0145684	.0029601
Political_rights	-.0290773	.0998783	-0.29	0.771	-.2248353	.1666806
Legalsys_integrity	-.0370666	.0207324	-1.79	0.074	-.0777013	.0035681
Prop_rightsProtect	-.0357592	.0359714	-0.99	0.320	-.1062619	.0347434
Freedom_intertrade	.0795967	.087708	0.91	0.364	-.0923077	.2515012
Exp_rate	.0005776	.0045554	0.13	0.899	-.0083508	.009506
Imp_rate	.0073019	.0030513	2.39	0.017	.0013214	.0132823
_cons	3.589016	.9187998	3.91	0.000	1.788201	5.38983
sigma_u	.12646364					
sigma_e	.17278945					
rho	.34881822	(fraction of variance due to u_i)				

Table 9: Source: Stata - Institutional variables, macro level data panel regression

This means that:

a) *government effectiveness*, which from what emerges from our analysis has a positive impact on the PRM and, according to Acemoglu et al. 2001, Acemoglu and Robinson, 2010; Barro, 1998; Knack and Keefer, 1995, Kaufmann and Kraay 2002, Kaufmann et al. 2008, stimulates market openness. Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Countries with more effective governments tend to achieve higher levels of economic growth by obtaining better credit ratings and attracting more investment, offering higher quality public services and encouraging higher levels of human capital accumulation, putting foreign aid resources to better use, accelerating technological innovation, and increasing the productivity of government spending. Efficiency in the delivery of public services also has a direct impact on poverty. On average, countries with more effective governments have better educational systems and more efficient health care.

In the analysis, its output has a negative sign, but the variable indicates that the lower is the value, the more the government is effective, which leads to a more open market, so the overall effect is positive;

b) *starting a business*, which indicates how easy is it to start a business in a particular economy, the more it's easy the more the market is pro-competitive. MIT economist David Birch published claims that small firms had accounted for 80% of all new employment opportunities between 1968 and 1976. Innovative offerings in the form of new goods and services, can produce a cascading effect by stimulating related businesses or sectors supporting the new venture, furthering economic development and market competitiveness.

New and improved products, services or technology from entrepreneurs enable new markets to be developed and new wealth to be created. Additionally, increased employment and higher earnings contribute to better national income in the form of higher tax revenue and higher government spending. This revenue can be used by the government to invest in other, struggling sectors and human capital.

In the analysis, its output has a negative sign, but the variable indicates that the lower is the value, higher is the chance to start new businesses, which leads to a more open market, so the overall effect is positive;

- c) *regulatory quality*, which has a positive impact in our analysis meaning that the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development is recognized. Improved regulatory quality can promote economic growth by creating effective and efficient incentives for the private sector. Conversely, burdensome regulations have a negative impact on economic performance through economic waste and decreased productivity. Researchers at the International Finance Corporation<sup>25</sup> argue that <<improving from the worst ... to the best ... quartile of business regulations implies a 2.3 percentage point increase in average annual growth>>. Good regulatory policies help the poor by creating opportunities for entrepreneurship, reducing opportunities for corruption, increasing the quality of public services, and improving the functioning of the housing, service, and labor markets on which they rely.

In the analysis, its output has a negative sign, but the variable indicates that the lower is the value, the more the government is well regulated, which leads to a more open market, so the overall effect is positive;

---

<sup>25</sup> The International Finance Corporation (IFC), World Bank Group, is an international financial institution that offers investment, advisory, and asset-management services to encourage private-sector development in developing countries.

d) *control of corruption*, which captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. In this analysis has a positive impact and follows the same PMR trajectory, elites and private interests are less exercised, as inclusive institutions tend to achieve. Corruption negatively affects the stock of international investment in the host country and causes uncertainty. Bribes, unlike taxes, involve unpredictable distortion in the discretionary and uncertain use of the government power. This results in additional costs to businesses and alongside with resources allocated to unproductive activities impose an extra burden on the economy. The lack of corruption is found to have a positive and statistically significant effect on the growth rate of real per capital GDP and increased the investment ratio. Hence, the empirical results suggest that corruption directly hinders economic growth by hampering investment.

In the analysis, its output has a positive sign, it means that the more the corruption is controlled, the more economy grows, which leads to a more open market;

e) *voice and accountability*, another indicator for inclusive institutions, captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. In this study follows the same PMR trajectory and its positive results mirror citizen's welfare and freedom, one of inclusive institutions' goals.

In the analysis, its output has a negative sign, but the variable indicates that the lower is the value the higher is citizens' welfare and freedom, which leads to a more open market, so the overall effect is positive;

f) *political stability and absence of violence/terrorism*, measures perceptions of the likelihood that the government will be destabilized or overthrown by

unconstitutional or violent means, including politically-motivated violence and terrorism.

In the results of the study has a positive sign and shows the extent to which the government will be able to damage control and reduce destabilization and make their citizens feel safe. This certainty leads toward a more open market;

- g) *impartiality of a court*, has a positive sign in this study and follows the same PMR trajectory, decisions are based on objective criteria, rather than on the basis of prejudice, or preferring the benefit to one person over another for improper reasons, as inclusive institutions seek. This influences the market and the more its value is high the more citizens rely on their institutions and supported. This certainty leads toward a more open market;
- h) *integrity of the legal system*, means a higher commitment to the values of honesty and totality or wholeness of the justice system in achieving its goals as well as the consistency of the system to uphold the basic values of the system. In the analysis, its output has a negative sign, but the variable indicates that the lower is the value, the more the legal system is fair, and citizens feel protected. This leads to a more open market, so the overall effect is positive;
- i) *imports of goods and services (annual % growth)*, allows to expand markets for both goods and services that otherwise may not have been available, and countries to use their resources. In the analysis the output has a positive sign and the more the value is high the more economic growth is stimulated, which results to a more open market.

The institutional variables above have a strong impact on the overall macro scene and are more in compliance with the PMR indicators overall.

### 4.3.1.2 Micro level set: *government and economic efficiency* data panel regression.

The results of the regression with panel data at a micro level considering the *government and economic efficiency* set, presented in the table below, show a particular statistical significance of the institutional variables  $Business\_freedom_{i,t}$ ,  $Starting\_business_{i,t}$ ,  $Prop\_rights_{i,t}$ ,  $Reg\_qlty_{i,t}$ ,  $Tax\_burden_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = 0.5734	min =		4
between = 0.6246	avg =		4.0
overall = 0.5931	max =		4
	Wald chi2(7)	=	147.04
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
ChecksBalances	-.005782	.0341729	-0.17	0.866	-.0727596	.0611956
Gov_effect	-.0596829	.1354243	-0.44	0.659	-.3251098	.2057439
Business_freedom	-.0076265	.0040747	-1.87	0.061	-.0156127	.0003598
Starting_business	-.0183781	.0047803	-3.84	0.000	-.0277473	-.0090089
Prop_rights	.007815	.0032699	2.39	0.017	.001406	.0142239
Reg_qlty	-.4442738	.130765	-3.40	0.001	-.7005685	-.187979
Tax_burden	-.0078197	.0037746	-2.07	0.038	-.0152177	-.0004217
_cons	4.382483	.3453361	12.69	0.000	3.705637	5.059329
sigma_u	.14363671					
sigma_e	.22899385					
rho	.28235382	(fraction of variance due to u_i)				

Table 10: Source: Stata - Institutional variables, micro level government and economic efficiency data panel regression

Given the results above, it means that:

- a) business freedom,
- b) starting a business,
- c) protection of rights to private property,
- d) regulatory quality,
- e) tax burden,

show and increase in the quality of public and civil services, and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. When a well-functioning, perfectly competitive market is permitted to reach its equilibrium, the outcome would be efficient.

As described in the macro level data panel regression *starting a business* and *regulation quality* have their impact on the degree of market openness:

- a) *starting a business* output has a negative sign, but the variable indicates that the lower is the value, higher is the chance to start new businesses, which leads to a more open market, so the overall effect is positive;
- d) *regulatory quality* output has a negative sign, but the variable indicates that the lower is the value, the more the government is well regulated, which leads to a more open market, so the overall effect is positive;

In details:

- a) *business freedom*: nations with higher degrees of economic freedom prosper because their governments rely on systems of free markets to regulate economic activity for a more open market;
- c) *protection of property rights to private property*: market economies rely on the creation and enforcement of property rights. Economies of nations that protect property rights grow more rapidly than those of nations that do not or poorly protect property rights and the nature of political regime influences economic growth indirectly through its commitment to property rights. Inclusive institutions promote the protection of property rights to private property. In this analysis the output has a positive sign, which means that the more the protection of property rights to private property is exercised, the more the institutions are inclusive, which leads to more open markets;

- e) *tax burden*: in general, lower tax burden results in economic growth and development. the output of the analysis has a positive sign which means that the tax burden is lowered and it reflects to a higher economic growth and degree of market openness.

The institutional indicators above have a strong impact on the micro scene of *government and economic efficiency* set and are more in compliance with the PMR indicators overall.

### 4.3.1.3 Micro level set: *accountability* data panel regression.

The results of the regression with panel data at a micro level considering the *accountability* set, presented in the table below, show a particular statistical significance of the institutional variables  $Voice\_account_{i,t}$ ,  $Pol\_stabViol\_abs_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = <b>0.0487</b>	min =		<b>4</b>
between = <b>0.5911</b>	avg =		<b>4.0</b>
overall = <b>0.3372</b>	max =		<b>4</b>
corr(u_i, X) = 0 (assumed)	Wald chi2(4)	=	<b>42.87</b>
	Prob > chi2	=	<b>0.0000</b>

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Corr_ctrl	-.0201579	.1352223	-0.15	0.881	-.2851888	.2448729
Voice_account	-.9429476	.3307274	-2.85	0.004	-1.591161	-.2947338
Gov_spending	-.0030676	.0020313	-1.51	0.131	-.0070489	.0009137
Pol_stabViol_abs	.2891445	.1258948	2.30	0.022	.0423953	.5358936
_cons	2.771973	.2413267	11.49	0.000	2.298982	3.244965
sigma_u	.15789404					
sigma_e	.31481437					
rho	.20099004	(fraction of variance due to u_i)				

Table 11: Source: Stata - Institutional variables, micro level accountability data panel regression

This means that:

- e) voice and accountability,
- f) political stability and absence of violence/terrorism,

have a strong impact on the micro scene of *accountability* set and are more in compliance with the PMR indicators overall.

*Voice and Accountability* has a negative sign output, but the variable indicates that the lower is the value, the more the market is open, so the overall effect is positive.

Development and improved governance have tended to go hand in hand. But, contrary to popular belief, there is little evidence that success in implementing governance reforms leads to more rapid and inclusive economic and social development.

Studies showed how stressing too much good government, can allow international institutions to avoid acknowledging the shortcomings of the new development orthodoxy of the last two decades of the 20<sup>th</sup> century, or tend to distract from more effective development efforts.

According to the World Economic Forum article “Does good governance always boost development?”<sup>26</sup> the conclusion is that the development agenda should not be overloaded with governance reform. As Harvard’s Merilee Grindle has put it, we should be aiming for “good enough” governance, selecting a few imperatives from a long list of possibilities.

Although, this paper shows how voice and accountability, and political stability and absence of violence/terrorism, which are just two of the good governance indicators, have a positive impact on market openness and have the same PMR trajectory.

---

<sup>26</sup> Author: Jomo Kwame Sundaram is Coordinator for Economic and Social Development at the Food and Agriculture Organization of the United Nations. Michael T. Clark is Special Adviser on International Governance at the Food and Agriculture Organization of the United Nations.

#### 4.3.1.4 Micro level set: *rule of law* data panel regression.

The results of the regression with panel data at a micro level considering the *rule of law* set, presented in the table below, show a particular statistical significance of the institutional variables  $Impartial\_courts_{i,t}$ ,  $Gov\_integrity_{i,t}$ ,  $Prop\_rightsProtect_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = 0.5750	min =		4
between = 0.6282	avg =		4.0
overall = 0.6033	max =		4
corr(u_i, X) = 0 (assumed)	Wald chi2(6)	=	163.13
	Prob > chi2	=	0.0000

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Police_law_crim	-.1736058	.1843237	-0.94	0.346	-.5348737	.187662
Impartial_courts	.2267929	.0239539	9.47	0.000	.1798442	.2737417
Gov_integrity	-.0148903	.0042284	-3.52	0.000	-.0231778	-.0066027
Political_rights	-.0342164	.1170926	-0.29	0.770	-.2637137	.1952809
Legalsys_integrity	-.038291	.0305251	-1.25	0.210	-.0981192	.0215371
Prop_rightsProtect	-.1249598	.04308	-2.90	0.004	-.209395	-.0405246
_cons	2.848671	.3657713	7.79	0.000	2.131772	3.565569
sigma_u	.12423382					
sigma_e	.22455387					
rho	.23435163	(fraction of variance due to u_i)				

Table 12: Source: Stata - Institutional variables, micro level rule of law data panel regression

This means that:

- a) impartial courts,
- b) government integrity,
- c) protection of property rights,

have a strong impact on the micro scene of *rule of law* set and are more in compliance with the PMR indicators overall.

In the Declaration of the High-level Meeting on the Rule of Law<sup>27</sup>, UN Member States noted that the rule of law and development are strongly interrelated and mutually reinforcing, that the advancement of the rule of law at the national and international levels is essential for sustained and inclusive economic growth, sustainable development, the eradication of poverty and hunger and the full realization of all human rights and fundamental freedoms, including the right to development, all of which in turn reinforce the rule of law. At the national level, the rule of law is necessary to create an environment for providing sustainable livelihoods and eradicating poverty. Poverty often stems from disempowerment, exclusion and discrimination. The rule of law fosters development through strengthening the voices of individuals and communities, by providing access to justice, ensuring due process and establishing remedies for the violation of rights. Security of livelihoods, shelter, tenure and contracts can enable and empower the poor to defend themselves against violations of their rights. Legal empowerment goes beyond the provision of legal remedies and supports better economic opportunities.

In order for the rule of law to further sustainable development outcomes, it must ensure protection for all human rights, including economic, social and cultural rights and the right to development.

*Government integrity* and *Protection of property rights* outputs have a negative sign, but the variables indicate that the lower is the value the more the Government is honest and property rights are protected, the more the economy develops and the market is open, so the overall effect is positive.

---

<sup>27</sup> United Nations, General Assembly - Distr.: General 30 November 2012 - Sixty-seventh session. Agenda item 83 12-47866 \*1247866\* - Resolution adopted by the General Assembly.

In this analysis, rule of law's indicators have a positive sign and follow the same PMR's trajectory, which can be seen as a positive impact of a country's development and market's openness.

### 4.3.1.5 Micro level set: *trade* data panel regression.

The results of the regression with panel data at a micro level considering the *trade* set, presented in the table below, show a particular statistical significance of the institutional variables  $Freedom\_intertrade_{i,t}$ ,  $Part\_eduSec_{i,t}$ ,  $Exp\_rate_{i,t}$ , revealing their impact on the PMR indicator.

```

Random-effects GLS regression           Number of obs   =       120
Group variable: dmu                   Number of groups =        30

R-sq:                                   Obs per group:
  within = 0.4158                        min =           4
  between = 0.0577                       avg =           4.0
  overall = 0.0954                       max =           4

corr(u_i, X) = 0 (assumed)              Wald chi2(3)    =       30.49
                                           Prob > chi2     =       0.0000

                                           (Std. Err. adjusted for 30 clusters in dmu)

```

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Freedom_intertrade	.1788616	.0844745	2.12	0.034	.0132947	.3444285
Exp_rate	.0287887	.0112419	2.56	0.010	.006755	.0508225
Imp_rate	.0077094	.0075553	1.02	0.308	-.0070987	.0225176
_cons	.1194966	.6896029	0.17	0.862	-1.2321	1.471093
sigma_u	.21935409					
sigma_e	.27035692					
rho	.39696875	(fraction of variance due to u_i)				

Table 13: Source: Stata - Institutional variables, micro level trade data panel regression

This means that:

- d) freedom to trade internationally,
- e) exports of goods and services (annual % growth),

have a strong impact on the micro scene of *education* set and are more in compliance with the PMR indicators overall.

Trade can be a key factor in economic development and market openness. The prudent use of trade can boost a country's development and create absolute gains for the trading partners involved.

### 4.3.2 PMR data panel regression with non-institutional variables.

#### 4.3.2.1 Non-institutional variables macro level data panel regression.

The results of the non-institutional variables regression with panel data at a macro level, presented in the table below, show a particular statistical significance of the non-institutional variables  $Pov\_ratio_{i,t}$ ,  $Prod\_empl1524_{i,t}$ ,  $Vuln\_emplF_{i,t}$ ,  $Mor\_rateAdultF_{i,t}$ ,  $Part\_eduTer_{i,t}$ ,  $Part\_eduAdol_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = <b>0.7749</b>	min =		<b>4</b>
between = <b>0.7226</b>	avg =		<b>4.0</b>
overall = <b>0.7288</b>	max =		<b>4</b>
corr(u_i, X) = 0 (assumed)	Wald chi2(22)	=	<b>602.94</b>
	Prob > chi2	=	<b>0.0000</b>

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Pov_ratio	.082455	.02528	3.26	0.001	.0329071	.1320029
Empl_ratio	-.0066537	.0095481	-0.70	0.486	-.0253676	.0120601
Undnour_ratio	.0035674	.0293898	0.12	0.903	-.0540356	.0611704
Prod_empl1524	.0115761	.0066603	1.74	0.082	-.0014778	.0246299
Prod_empl15	0	(omitted)				
Lab_prod	1.12e-06	1.80e-06	0.63	0.532	-2.40e-06	4.64e-06
Vuln_emplF	.0233555	.0097332	2.40	0.016	.0042787	.0424323
Vuln_emplM	.0087417	.013013	0.67	0.502	-.0167632	.0342466
Mor_rate5	-58.88642	47.12496	-1.25	0.211	-151.2496	33.4768
Mor_rateAdultF	-17.36443	5.791105	-3.00	0.003	-28.71479	-6.014074
Mor_rateAdultM	4.685164	3.145691	1.49	0.136	-1.480277	10.8506
Life_expF	-.59465	7.034723	-0.08	0.933	-14.38245	13.19315
Life_expM	-10.07736	6.497258	-1.55	0.121	-22.81175	2.657035
Mor_neo	67.72228	100.6033	0.67	0.501	-129.4565	264.9011
Part_eduPre	-.0022779	.0027715	-0.82	0.411	-.00771	.0031542
Part_eduPri	-.0023334	.0049601	-0.47	0.638	-.012055	.0073881
Part_eduSec	.0025177	.0024629	1.02	0.307	-.0023095	.0073449
Part_eduTer	-.0087967	.0017902	-4.91	0.000	-.0123054	-.0052881
Part_eduPriNet	-.0081213	.0081922	-0.99	0.322	-.0241778	.0079352
Part_eduSecNet	.0051842	.0095077	0.55	0.586	-.0134505	.023819
Part_eduPriAdjF	-.0098505	.0383217	-0.26	0.797	-.0849597	.0652587
Part_eduPriAdjM	.0074697	.0327944	0.23	0.820	-.056806	.0717455
Part_eduAdol	-.0363407	.0139238	-2.61	0.009	-.0636308	-.0090507
_cons	11.13585	3.755033	2.97	0.003	3.77612	18.49558
sigma_u	.13382912					
sigma_e	.16877739					
rho	.38602934	(fraction of variance due to u_i)				

Table 14: Source: Stata - Non-institutional variables, macro level data panel regression

This means that:

- f) poverty headcount ratio,
- g) decent work and productive employment - employment to population ratio (ILO estimates); % ages 15 - 24 (youth),
- h) decent work and productive employment - vulnerable employment; % of female employment,
- i) adult mortality rate (per 1,000 adults); female,
- j) participation in education - gross enrolment ratio (% of relevant age group); tertiary,
- k) participation in education - Adolescent out of school (% of lower secondary school age)

have a strong impact on the overall macro scene and are more in compliance with the PMR indicators overall.

### 4.3.2.2 Micro level set: *life quality* data panel regression.

The results of the regression with panel data at a micro level considering the *life quality* set, presented in the table below, show a particular statistical significance of the non-institutional variables  $Pov\_ratio_{i,t}$ ,  $Mor\_rateAdultF_{i,t}$ ,  $Life\_expM_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = <b>0.6493</b>	min =		<b>4</b>
between = <b>0.6374</b>	avg =		<b>4.0</b>
overall = <b>0.6204</b>	max =		<b>4</b>
corr(u_i, X) = 0 (assumed)	Wald chi2(8)	=	<b>176.89</b>
	Prob > chi2	=	<b>0.0000</b>

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Pov_ratio	.043144	.0196695	2.19	0.028	.0045926	.0816955
Undnour_ratio	-.0157412	.0492197	-0.32	0.749	-.1122101	.0807277
Mor_rate5	-46.85802	56.22524	-0.83	0.405	-157.0575	63.34144
Mor_rateAdultF	-22.00574	9.45609	-2.33	0.020	-40.53934	-3.472147
Mor_rateAdultM	1.133492	3.324912	0.34	0.733	-5.383216	7.6502
Life_expF	-2.972062	8.338304	-0.36	0.722	-19.31484	13.37071
Life_expM	-14.90097	6.747215	-2.21	0.027	-28.12527	-1.676675
Mor_neo	140.7373	122.5507	1.15	0.251	-99.45753	380.9322
_cons	16.48201	3.792977	4.35	0.000	9.047911	23.91611
sigma_u	.13547907					
sigma_e	.19439276					
rho	.32692479	(fraction of variance due to u_i)				

Table 15: Source: Stata - Non-institutional variables, micro level life quality data panel regression

This means that:

- l) poverty headcount ratio,
- m) adult mortality rate (per 1,000 adults); female,
- n) life expectancy at birth (years); male norm,

have a strong impact on the micro scene of *life quality* set and are more in compliance with the PMR indicators overall.

### 4.3.2.3 Micro level set: *employment* data panel regression.

The results of the regression with panel data at a micro level considering the *employment* set, presented in the table below, show a particular statistical significance of the non-institutional variables  $Empl\_ratio_{i,t}$ ,  $Lab\_prod_{i,t}$ ,  $Vuln\_emplF_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = <b>0.5044</b>	min =		<b>4</b>
between = <b>0.6455</b>	avg =		<b>4.0</b>
overall = <b>0.4865</b>	max =		<b>4</b>
corr(u_i, X) = 0 (assumed)	Wald chi2(5)	=	<b>69.63</b>
	Prob > chi2	=	<b>0.0000</b>
(Std. Err. adjusted for 30 clusters in dmu)			

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Empl_ratio	-.0263372	.0110876	-2.38	0.018	-.0480686	-.0046059
Prod_empl1524	.008685	.0062638	1.39	0.166	-.0035918	.0209617
Lab_prod	-4.69e-06	2.78e-06	-1.69	0.091	-.0000101	7.55e-07
Vuln_emplF	.0328562	.0116091	2.83	0.005	.0101028	.0556095
Vuln_emplM	-.0167907	.0170941	-0.98	0.326	-.0502945	.016713
_cons	3.048416	.5196175	5.87	0.000	2.029984	4.066847
sigma_u	.13670436					
sigma_e	.253191					
rho	.22571848	(fraction of variance due to u_i)				

Table 16: Source: Stata - Non-institutional variables, micro level employment data panel regression

This means that:

- o) employment to population ratio, 15+, total (%),
- p) decent work and productive employment - labor productivity; GDP per person employed (% growth),
- q) decent work and productive employment - vulnerable employment; % of female employment,

have a strong impact on the micro scene of *employment* set and are more in compliance with the PMR indicators overall.

### 4.3.2.4 Micro level set: *education* data panel regression.

The results of the regression with panel data at a micro level considering the *education* set, presented in the table below, show a particular statistical significance of the variables  $Part\_eduPre_{i,t}$ ,  $Part\_eduSec_{i,t}$ ,  $Part\_eduTer_{i,t}$ , revealing their impact on the PMR indicator.

Random-effects GLS regression	Number of obs	=	120
Group variable: <b>dmu</b>	Number of groups	=	30
R-sq:	Obs per group:		
within = 0.6720	min =		4
between = 0.2889	avg =		4.0
overall = 0.3796	max =		4
	Wald chi2(9)	=	173.61
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000

(Std. Err. adjusted for 30 clusters in dmu)

PMR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Part_eduPre	-.0127221	.0022236	-5.72	0.000	-.0170803    -.0083638
Part_eduPri	.0070188	.0074169	0.95	0.344	-.0075181    .0215557
Part_eduSec	-.0054707	.0032186	-1.70	0.089	-.0117791    .0008377
Part_eduTer	-.0149192	.0025364	-5.88	0.000	-.0198904    -.009948
Part_eduPriNet	-.0127718	.0085245	-1.50	0.134	-.0294794    .0039358
Part_eduSecNet	.0020616	.0081808	0.25	0.801	-.0139725    .0180957
Part_eduPriAdjF	-.0195699	.052358	-0.37	0.709	-.1221897    .0830499
Part_eduPriAdjM	.0127876	.0396429	0.32	0.747	-.0649112    .0904863
Part_eduAdol	-.0171832	.0158751	-1.08	0.279	-.0482979    .0139315
_cons	5.356777	2.210338	2.42	0.015	1.024594    9.688959
sigma_u	.28825293				
sigma_e	.22479041				
rho	.62183396	(fraction of variance due to u_i)			

Table 17: Source: Stata - Non-institutional variables, micro level education data panel regression

This means that:

- r) participation in education - gross enrolment ratio (% of relevant age group);  
preprimary,
- s) participation in education - gross enrolment ratio (% of relevant age group);  
secondary,
- t) participation in education - gross enrolment ratio (% of relevant age group);  
tertiary

have a strong impact on the micro scene of *education* set and are more in compliance with the PMR indicators overall.

## **5 Goals for inclusive growth stimulation.**

The Atlas of Sustainable Development Goals, From World Development Indicators 2018 (World Bank Group, 2018) presents maps, charts, and stories related to the 17 Sustainable Development Goals drafted in order to overcome world's problems and stimulate inclusive growth by 2030.

It discusses trends, comparisons, and measurement issues using accessible and shareable data visualizations. The data draw on the World Development Indicators the World Bank's compilation of internationally comparable statistics about global development and the quality of people's lives. For each of the SDGs, relevant indicators have been chosen to illustrate important ideas.

Below there will be the SDG's more connected to the purpose of this paper.

According to the Atlas, between 1990 and 2013 nearly one billion people were raised out of extreme poverty, in contrast to the elite ruling and exploiting nations' welfare. Through sustained growth and reduced inequality, the elimination of the extreme poverty is a realistic prospect in the agenda.

Extreme poverty is not the only problem still affecting our societies.

Although there are still areas which need improvements, some steps forward have been made. This is the picture the Atlas of Sustainable World Development highlights:

- malnutrition and stunting have almost halved since 1990, despite rising food prices, while the burden of infectious diseases has decreased;
- the availability of water has increased, but progress in terms of sanitation has been slower;
- the availability of health and education still depends on personal finances;
- environmental costs have been high, but greenhouse gas emissions are at record levels, renewable energy sources;

- physical infrastructure continues to evolve, as do the population, so urban cities and road access to roads still face challenges, especially in sub-Saharan Africa. Meanwhile, the institutional development infrastructure will be strengthened through more reliable government budgets and foreign direct investment from the financial crisis. But official development aid is not yet at the target level.

## 5.1 No poverty: Goal 1

*“An estimated 766 million people, or 10.7 percent of the world’s population, lived in extreme poverty in 2013. In 2012 the extreme poverty rate stood at 12.4% globally, and over the year the number of people living below the international poverty line of \$1.90 a day fell by 114 million. Goal 1 aims to end poverty in all its forms by 2030. It also seeks to ensure social protection for poor and vulnerable people, to increase access to basic services, and to support those harmed by conflict and climate-related disasters”. (The Atlas of Sustainable Development Goals 2018).*

The goal of eradicating extreme poverty by 2030 uses a comparable poverty line throughout the world as a reference point. Goal 1 also aims to reduce half of the percentage of people living in poverty, as defined by national authorities.

National poverty lines typically reflect a threshold below which a person’s minimum nutrition, clothing, and shelter needs cannot be met, in line with the country's economic and social conditions. Yet, as we have seen for extractive institutions, richer countries tend to have higher poverty lines than poorer ones and, in some cases, richer country may have a higher rate of national poverty than the poorest ones.

In general, countries continue to maintain the same national poverty lines over time, adjusting them to keep inflation stable. Some countries - including Bhutan, Bolivia, Colombia, Costa Rica, El Salvador and Mexico - have taken measures to capture the multidimensional nature of poverty, assess how families are deprived of education, health, housing and labor market opportunities.

In order to end poverty and ensure a more adequate protection by redistributing incomes to promote a more equitable society and reducing perceived risks, thus contributing to the accumulation of human capital and investment opportunities, are considered very important social protection programs that can increase the resilience and opportunities offered to vulnerable people (target 1.3). These programs include:

- social assistance (e.g. cash and in-kind transfers)
- social security (such as pensions and unemployment insurance)
- active labor market programs (e.g. skills training and wage subsidies)

However, still too many poor people in low-income countries are not eligible to receive social assistance.

### **Securing land rights.**

Tenure security is crucial for encouraging productive investment, sustainable land management, and access to finance (target 1.4). Precise land rights help to reduce conflicts, increase transparency and generate revenue for public services through real estate taxes. Recognition of rights is important for indigenous communities and women, strengthening their bargaining power, family well-being and equal opportunities through ownership.

As written in the document, a functional land registration system tends to be strongly linked to women's rights to land and to policies supporting women's

rights; for example, it prevents the loss of these rights from being lost, through inheritance or divorce.

## **5.2 Zero hunger: Goal 2.**

*Undernourishment declined globally from 19% to 11% in the past quarter century, while child stunting fell from 40% to 23%. But populations and food demand continue to grow, especially in South Asia and Sub-Saharan Africa. Ending hunger and all forms of malnutrition by 2030 requires faster downward trends. Goal 2 also addresses poverty and food insecurity through enhancing agricultural productivity and sustainability. (The Atlas of Sustainable Development Goals 2018).*

The end of hunger is the end of chronic undernourishment, when the daily minimum dietary energy requirement over a year is not met. Between 1991 and 2015 the prevalence of malnutrition decreased worldwide by 8%, leaving about 793 million people affected. More than a third of these disadvantaged people live in South Asia, while South Africa, East Asia and Pacific are responsible for about a quarter.

Expectations for further progress are sadly very low: the trend in Middle East and North Africa has stagnated in recent years.

Targets set to ending the hunger by 2030 requires accelerated efforts to achieve faster global declines (target 2.1). Malnutrition refers to both undernutrition and overnutrition.

The occurrence of malnutrition provides only a partial overview of the situation regarding food security topic. For a more complete assessment of the many dimensions and manifestations of food insecurity, the Food and Agriculture

Organization has developed an initial set of food security indicators available in most countries and years.

Population growth and the growing demand for food, together with the expected negative impacts of climate change on agriculture in countries underdeveloped countries, will increase the challenge of maintaining and accelerating the progress of all regions.

Improving agricultural productivity is in the fight against poverty and food in rural areas, since most of the poor are working in agriculture.

### **5.3 Good health and well-being: Goal 3.**

*In 2015, 303,000 mothers died from complications in pregnancy or childbirth—216 per 100,000 live births. In Sub-Saharan Africa the rate was more than twice that. Both there and in South Asia only half of births are attended by skilled staff, and the number of newborn deaths in the first month is also high, at around 30 per 1,000 births. Goal 3 addresses these and other causes of premature death and seeks universal health coverage, so that people can obtain health care without great financial penalty. (The Atlas of Sustainable Development Goals 2018).*

Because infectious diseases, such as malaria and tuberculosis, the percentage of deaths from infectious diseases increases. In the years 2000-2015, premature death (before the age of 70) of four of the major infectious diseases (cardiovascular diseases, cancer, diabetes and chronic respiratory diseases) decreased by 16%. In order to reduce it by one third in 2030, the current trend must be accelerated (target 3.4).

Universal health coverage has to be addressed to all people, not only to the ones with a stable financial situation. As highlighted by the Atlas, <<achieving it would

prevent people from falling into poverty due to illness and give people the opportunity to lead healthier and more productive lives (target 3.8)>>.

Many low- and middle-income countries still have high costs of financing health care. Universal coverage should protect everyone.

#### **5.4 Quality education: Goal 4.**

*The ratio of students completing lower secondary school increased in SubSaharan Africa from 23% in 1990 to 42% in 2014 but remains low compared with a global ratio of 75%. Increased enrollment at school leads to an empowered citizenry and a more productive labor force. Goal 4 aims to make learning opportunities accessible to all. It also examines the quality of education, which plays a large role in sustainable development and poverty alleviation. Investment in human capital at various ages accelerates improvement in other areas. (The Atlas of Sustainable Development Goals 2018).*

In 2014, 90% of children got access to primary education all over the world, but just 75% of it went on to finish lower-secondary education. Access to education for all has been one of the main objectives of the global development plan for over 25 years and remains a priority (target 4.5).

Children in low and middle-income countries are less likely to register in school as they grow up. This trend is evident between rich and poor families, but this difference is significant. In many countries, there is also inequality in the education of rural and urban children; in both cases, girls are disadvantaged.

## 5.5 Decent work and economic growth: Goal 8.

*Young people ages 15–24—who make up 22% of the world’s adult population—often face great challenges in finding employment. And even after they find work, they are disproportionately engaged in low-productivity and low-quality jobs, with few opportunities. In addition to sustained job creation, Goal 8 recognizes that decoupling economic growth from environmental degradation is fundamental to sustainable development.*

Getting people into jobs Goal 8 aims at full employment for all age groups and identifies work, education, and training for young people as part of that aim (targets 8.5 and 8.6). 42% of world’s population is under the age of 25. In 2015, South Asia and sub-Saharan Africa were counting 525 million people aged between 15 and 24, which is almost half of the world's young population.

Jobs for younger people are an important tool for social, economic and political integration. At the contrary, its lack, can lead to dissatisfaction and unrest amongst disaffected young people.

The 60% of people aged between 15 and 24 do not have a job. Meanwhile, less than a quarter of young people in the Middle East and North Africa and the third largest in Europe and Central Asia - far below the percentage of adults - is working.

Because young people often participate in education and trainings, they have a greater labor. However, these gaps also reflect the fact that the youth unemployment rate is higher than the total unemployment rate of each area. In many middle-income countries, there are no significant jobs, education or training for young people, representing a lost opportunity.

Young women are much more likely than men to fall into this group, and a gender gap persists in countries at all incomes. The low activity of women is the result of

several factors, including their primary role in households and families as well as societal norms that limit their participation in working life.

Young people in low-income countries have a better chance of finding a job than young people in middle and high-income countries. Many families, including many who leave school prematurely, find themselves in a precarious situation, with low productivity and just few opportunities to uprise. They are often disproportionately in agricultural activities, which tend to have lower labor productivity and offer lower earnings and profits than do industry and services.

In many countries work is unpaid.

Economic growth drives development by providing more resources for better education. As a result of more productivity, the economies grow.

Target 8 requires the decoupling of the environmental degradation from growth (target 8.4). One way to measure separation is to demonstrate the rate of environmental degradation and the growth of economic growth. Degradation includes the costs of greenhouse gas emissions from fossil fuels, agriculture, forestry, and land use change; the harvest of forest timber resources beyond sustainable rates; and reduced labor output due to premature mortality caused by exposure to environmental risk factors such as air pollution, unsafe water and sanitation, and harmful substances in the workplace.

In the event of a strong decoupling, the deterioration of the state of the environment will decrease while the economy continues to grow. With weak decoupling, degradation may decline, but at a slower rate than economic growth. About 80% of low-income countries appear to have weak decoupling, mainly due to domestic air pollution unsafe water and sanitation. With intensified coupling, degradation increases at an even faster rate than economic growth. Intensified

coupling is present in almost 40% of middle-income countries and 70% of high-income countries.

Financial services allow to manage and increase income, assets and investments (goal 8.10).

## **5.6 Industry, innovation, and infrastructure: Goal 9.**

*Just over half the rural population in Nepal live within 2 km of a road in good or fair condition, leaving around 10.3 million people without easy access. And around 15 million rural residents lack good road access in Mozambique. Yet reliable roads and other decent infrastructure are essential for lifting rural communities out of poverty. Goal 9 explores not only opportunities to improve transport but also those in industry, innovation, and other types of infrastructure. (The Atlas of Sustainable Development Goals 2018).*

Goal 9 promotes inclusive and sustainable industrialization (target 9.2). Manufacturing value added (MVA) is an indicator for the evaluation of the industrialization of a nation, and the MVA's share in the GDP measures manufacturing in the economy.

Investment in reliable, sustainable, and resilient infrastructure can provide remote populations with access to services (target 9.1). Thanks to better roads, farmers can market their products more easily, have a facilitated access to hospitals, schools and other services. It also helps agricultural productivity, business profitability and employment.

Goal 9 aims to improve an efficient use of resources and to promote the use of clean and environmentally friendly technologies and industrial processes (target 9.4).

By investing in R&D and thus facilitating innovation in science and technology the competitiveness of developing countries should be enhanced (target 9.5). Expenditure on research and development is a share of the GDP and the share of people involved in R&D are estimated to be highest in high-income economies.

Access to financial services allows companies to easily handle their cash flows, increase resources, make productive investments and use resources more efficiently (target 9.3). But many small businesses worldwide do not have the necessary funding. Business studies in East Asia and the Pacific in 2015 and 2016. shown that the 10 economies surveyed, small and medium-sized enterprises are limited to loans.

### **5.7 Reduced inequalities: Goal 10.**

*The income and consumption of the poorest 40% of the population (the “bottom 40”) grew faster than the national average in 49 of 83 countries between 2008 and 2013. By providing a platform for sustained income growth among the poorer segments of society, Goal 10 aims to reduce inequalities between a country’s citizens and to promote shared prosperity and gains in wealth for all. (The Atlas of Sustainable Development Goals 2018).*

### **5.8 Peace, justice, and strong institutions: Goal 16.**

*Nearly one in three firms in countries surveyed in East Asia and Pacific encounter at least one bribe payment request, the most of any region. Businesses in poorer countries are more likely to encounter bribery than those in richer ones, impeding sustainable development. Goal 16 promotes just, transparent, and accountable governance, together with inclusive frameworks and peaceful societies. (The Atlas of Sustainable Development Goals 2018).*

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

Good governance in regulation, business licensing, taxation and accessibility to public services are crucial for a sustainable business environment. Inefficient policies and procedures increase the possibilities for bribes or unofficial payments.

In one-fourth of the companies in low-income and middlelow-income countries it's easy to find requests for bribes and informal payments from officials, while one in five are expected to offer gifts to tax officials. Bribes often happen in transactions crucial for private firms to survive: tax payments; obtain a license and get an electrical or water connection.

These requests also hinder the creation and development of businesses.

Between 2012 and 2014, the overall global international homicide rate fell from 6 per 100,000 to 5, indicating progress towards goal 16, which significantly aims to reduce violence and conflict-related deaths (target 16.1).

To ensure a stable basis for development, government budgets should be complete, transparent and realistic (objective 16.6). The Public Expenditure and Financial Accountability (PEFA) Program shows how governments implement their budgets based on measures approved at the beginning of each year. Since 2005, 147 countries and 178 regional governments have carried out PEFA assessments and public expenditure was to be considered as international expenditure.

Civil registration systems should record the most important live events, such as births, marriages and deaths of all citizens (target 16.9).

## 5.9 Partnership for global development: Goal 17.

*Personal remittances received from across borders and foreign direct investment (FDI) reached \$2.7 trillion in 2015, representing 3.6 percent of global GDP. These transfers and official aid enable the poorest countries to lay the foundations for viable long-term development. Funding, capacity building, knowledge sharing, international outreach, debt sustainability, trade facilitation, domestic resource mobilization, effective public–private partnerships, and access to tools and technologies form the basis of Goal 17, which seeks to strengthen global partnerships to support sustainable development. (The Atlas of Sustainable Development Goals 2018).*

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

In 2015, Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) Development Assistance (DAC) members paid \$ 131.6 billion in official development assistance. After inflation and exchange rates valuations adjustments, this represented a real increase of 6.9% compared to 2014 and 83% compared to 2000. But ODA still accounts for a small share of donors' gross national income (GNI), averaging 0.3 percent. Just six DAC countries exceeded the UN benchmark for ODA contributions of at least 0.7 percent of GNI (target 17.2). The three largest donors by volume countries (the United States, the United Kingdom and Germany) accounted for more than half of the public aid for the development of DAC ODA. Bilateral aid to the poorest countries by 4% in 2015, reflecting DAC's commitment to providing direct assistance when it is most needed. However, a significant part of the increase in flows resulted from the increase in humanitarian aid, not from the increase of projects and development programs.

The flow of direct investment to low and middle-income countries (FDI) has grown considerably over the last decade. These flows are attractive because they are largely equity investments and therefore do not constitute indebtedness. They bring benefits, such as skills and technology transfers for domestic-owned enterprises and their employees, as well as increased productivity and improved access to domestic and export markets.

Public–private partnerships (PPPs) can be crucial contributing to the delivery of efficient public services (target 17.17).

Goal 17 recognizes that communications technology and information in the poorest countries such as South Asia and sub-Saharan Africa would booster research, innovation and technological development. Target 17.8 aims to increase access for people in the 48 Least Developed Countries, where on average, fewer than 13% of people have access to the Internet.

### **Facilitating trade.**

Trade is paramount to sustaining development and advancing economic growth, and inclusive trade facilitation is a powerful tool to foster global competitiveness (targets 17.10, 17.11, and 17.12). Effective and efficient customs processes are fundamental to good trade practices: delays in clearing customs for exports and imports increase costs to firms, interrupt production, interfere with sales, and may result in damaged supplies or merchandise. Clearing customs tends to take longer for imports than exports across most regions, with the longest delays in Sub-Saharan Africa. Easing the flow of imports into a country helps local manufacturers and businesses obtain component parts of better quality or at lower cost. Enhancing customs capacity to clear exports and imports enables firms to benefit from a whole spectrum of productivity gains from trade. In addition to burdensome customs clearance, obtaining necessary documents can be time-consuming and costly for some exports. Within agriculture, cereal exports are

subject to more documentation requirements and longer phytosanitary certification than are other product categories, taking on average five days to be processed, compared with just over two days for vegetables. Additionally, the documents necessary to export cash crops tend to be costly. Traders spend less time on customs clearance in countries with fully operational electronic systems that allow customs declarations to be submitted and processed online. Around 70 percent of countries have fully or partially implemented electronic data interchange systems.

## **Conclusion.**

In the paper has been highlighted how inclusive institutions forge inclusive growth.

Most of the inclusive institutions' indicators and goals are in compliance with the PMR, which is another indicator sustained by inclusive institutions.

The fact that government and economic efficiency, accountability, rule of law and trade as well as life quality, employment and education have a positive impact and follow the same PMR's path and are improving in the last years, is a sign how most of the OECD's Countries are working in order to build inclusive growth and have inclusive institutions.

As a proof of how nations are taking seriously the inclusive growth and development topic, the World Bank Group in 2018 developed The Atlas of Sustainable Development Goals, From World Development Indicators 2018, which presents maps, charts, and stories related to the 17 Sustainable Development Goals drafted in order to overcome world's problems and stimulate inclusive growth by 2030.

It discusses trends, comparisons, and measurement issues using accessible and shareable data visualizations. The data draw on the World Development Indicators the World Bank's compilation of internationally comparable statistics about global development and the quality of people's lives. For each of the SDGs, relevant indicators have been chosen to illustrate important ideas.

## Appendix.

## National KPIs Dashboard.

## Advanced Economies

Rank  
Bottom 20% ■ ■ ■ ■ Top 20%

	GROWTH & DEVELOPMENT				INCLUSION				INTERGENERATIONAL EQUITY & SUSTAINABILITY			
	GDP PER CAPITA, \$	LABOR PRODUCTIVITY, \$	HEALTHY LIFE EXPECTANCY, YRS	EMPLOYMENT, %	NET INCOME GINI	POVERTY RATE, %	WEALTH GINI	MEDIAN INCOME, \$	ADJUSTED NET SAVINGS, %	CARBON INTENSITY, KG PER \$ OF GDP	PUBLIC DEBT, %	DEPENDENCY RATIO, %
Norway	89741	124555	72.0	62.6	22.9	7.8	79.8	60.4	21.1	16.3	27.9	52.2
Switzerland	75551	93491	73.1	65.0	29.7	8.6	72.1	56.1	15.0	11.8	45.7	48.8
Luxembourg	106409	201748	71.8	53.9	28.4	8.4	75.4	58.8	12.8	32.5	21.5	43.7
Iceland	45411	70671	72.7	70.1	23.4	4.6	72.0	41.9	11.4	21.2	67.6	51.6
Denmark	58208	87167	71.2	58.3	24.9	5.4	89.3	43.4	14.6	18.2	45.5	55.9
Sweden	54989	87961	72.0	58.9	25.5	8.8	83.2	45.2	18.9	14.2	43.4	59.3
Netherlands	50925	85121	72.2	59.7	25.3	8.4	74.3	44.0	17.1	38.9	65.1	53.3
Australia	54718	86972	71.9	61.2	31.8	12.8	68.2	44.3	8.8	57.1	37.6	50.9
New Zealand	36464	65440	71.6	63.9	36.0	9.9	69.1	n/a	14.0	36.2	29.9	54.0
Austria	47668	87198	72.0	57.9	28.8	9.0	78.5	47.5	11.9	22.6	86.2	49.2
Finland	45289	82025	71.0	54.3	25.0	6.8	76.6	43.5	6.5	27.6	62.5	58.3
Ireland	56054	103880	71.5	53.4	29.1	8.9	80.0	34.7	16.3	19.5	78.7	53.7
Canada	50001	82524	72.3	61.5	31.4	12.6	73.2	47.6	7.3	54.5	91.5	47.3
Germany	45270	84050	71.3	56.9	29.5	9.1	78.9	45.9	13.5	58.9	71.0	51.8
Korea, Rep.	25023	68416	73.2	58.8	29.8	14.4	71.9	n/a	19.2	68.8	37.9	37.2
Czech Republic	20956	55940	69.4	55.9	24.5	6.0	76.0	23.8	6.3	69.5	40.3	49.5
Belgium	44863	98644	71.1	48.8	24.4	10.0	64.1	43.6	10.0	40.1	106.1	54.2
Slovak Republic	18508	59746	68.1	51.6	25.7	8.4	49.0	26.5	1.7	49.5	52.9	40.8
France	41330	89701	72.6	50.2	26.8	8.0	72.0	43.8	6.8	17.7	96.1	60.3
Slovenia	23896	61022	71.1	52.1	26.7	9.5	58.5	30.3	11.1	49.3	83.1	48.7
United Kingdom	40933	76161	71.4	58.2	32.7	10.4	73.2	38.4	3.8	21.8	89.0	55.1
Estonia	17762	53118	69.0	57.3	34.3	16.3	65.6	19.2	17.3	48.6	9.7	53.5
United States	51486	109314	69.1	58.5	37.0	17.5	86.2	48.9	6.8	46.4	105.2	50.9
Japan	44657	72523	74.9	56.9	30.8	16.1	63.1	34.8	3.6	31.9	248.0	64.5
Israel	32828	76834	72.8	59.1	36.6	18.6	77.2	24.0	15.5	68.9	64.1	64.1
Spain	30588	82548	72.4	44.4	34.1	15.9	68.0	31.3	6.8	29.7	99.3	50.8
Italy	33705	87013	72.8	43.1	32.7	13.3	68.7	34.1	3.7	24.0	132.7	56.5
Portugal	21961	56078	71.4	51.7	33.2	13.6	71.3	20.5	2.6	33.2	129.0	53.5
Greece	22648	72824	71.9	39.1	33.7	15.1	67.0	19.5	-5.5	46.6	176.9	56.2
Singapore	51855	138815	73.9	65.6	40.9	n/a	74.0	n/a	37.0	129.5	104.7	37.4

Table 18: National KPIs Dashboard, Advanced Economies: Level

## Advanced Economies

Rank  
  
Bottom 20%      Top 20%

	GROWTH & DEVELOPMENT				INCLUSION				INTERGENERATIONAL EQUITY & SUSTAINABILITY			
	GDP PER CAPITA GROWTH, %	LABOR PRODUCTIVITY GROWTH, %	HEALTHY LIFE EXPECTANCY TREND, YRS	EMPLOYMENT TREND, %	NET INCOME GINI TREND	POVERTY TREND, %	WEALTH GINI TREND	MEDIAN INCOME TREND, \$	ADJUSTED NET SAVINGS TREND*, %	CARBON INTENSITY TREND, KG PER \$ OF GDP	PUBLIC DEBT TREND, %	DEPENDENCY RATIO TREND, %
Norway	0.5	0.9	1.4	-0.7	-1.2	0.3	2.0	5.8	5.1	-0.2	-0.9	1.2
Switzerland	0.3	0.3	1.4	0.2	-0.4	-0.9	-8.1	3.0	-6.6	-0.6	-0.4	1.6
Luxembourg	0.6	0.5	1.2	-0.6	1.1	0.3	5.9	-2.2	-7.1	-3.8	2.3	-2.0
Iceland	1.8	0.7	0.2	1.2	-1.2	-1.6	4.2	-9.0	11.7	-5.4	-27.5	1.9
Denmark	0.2	0.6	1.7	-1.2	0.1	-1.0	0.7	-0.1	2.0	-5.2	-0.9	2.4
Sweden	1.1	1.1	0.5	0.9	-0.1	0.1	3.9	2.3	0.3	-2.5	6.5	5.5
Netherlands	0.2	0.2	1.7	-2.0	-0.4	1.2	2.0	-1.4	2.2	-1.4	3.5	3.6
Australia	1.1	1.9	0.7	-1.0	-1.3	-1.6	4.2	0.6	1.3	-10.4	13.4	2.3
New Zealand	1.6	1.3	1.3	0.6	0.5	-1.1	-2.6	n/a	5.8	-3.0	-1.6	3.0
Austria	0.4	0.8	1.6	0.0	-0.6	-0.6	0.9	-0.1	-1.4	-3.5	4.0	0.8
Finland	-0.4	0.1	1.3	-0.9	-1.1	-0.4	5.1	2.3	-3.7	-6.0	14.0	6.6
Ireland	3.1	-0.1	0.7	0.9	-0.3	0.0	8.4	-4.8	7.2	-3.9	-30.9	5.5
Canada	1.1	1.0	1.5	0.2	-0.2	-0.4	0.5	1.6	2.1	-0.7	10.0	2.7
Germany	1.6	0.7	1.2	1.8	0.9	0.1	1.9	0.7	1.8	-6.7	-7.3	0.0
Korea, Rep.	2.5	1.8	2.0	0.7	-0.7	-0.5	-0.6	n/a	-1.4	2.3	6.4	-0.2
Czech Republic	1.2	-0.4	1.2	1.8	-0.9	-0.1	0.4	0.3	1.9	-8.4	0.5	6.1
Belgium	0.2	0.6	1.2	-0.6	-0.7	0.0	1.3	1.5	-2.5	-3.3	3.7	2.5
Slovak Republic	2.3	1.4	1.4	1.1	-0.1	0.5	4.3	1.5	-0.8	9.3	9.6	2.4
France	0.3	0.4	1.4	-0.7	-1.8	0.5	3.1	0.6	-0.6	-3.4	10.9	4.5
Slovenia	0.4	0.8	1.3	-2.9	2.2	1.1	4.8	-1.5	3.8	-1.9	36.7	3.7
United Kingdom	1.3	0.5	1.0	1.2	-0.8	-0.8	5.4	-0.5	-0.5	-4.8	7.7	3.1
Estonia	4.0	1.3	2.0	6.3	2.0	5.1	-2.5	-0.8	5.7	-1.0	3.8	4.1
United States	1.3	0.7	1.2	1.1	0.3	0.1	1.5	-0.7	3.6	-4.9	6.2	2.0
Japan	0.8	0.9	1.3	-0.2	0.2	0.1	-0.4	n/a	-1.3	0.0	16.3	6.2
Israel	1.3	-0.1	1.4	5.6	-0.8	-2.3	0.4	0.8	2.7	8.3	-4.7	3.1
Spain	-0.1	0.8	0.5	-2.8	0.7	1.0	1.7	-4.8	-0.2	-2.3	29.8	3.3
Italy	-1.2	-0.6	1.1	-1.1	0.2	1.3	3.5	-3.0	0.2	-4.8	16.2	3.2
Portugal	-0.5	0.2	1.6	-3.5	0.8	2.0	1.4	-1.6	4.6	0.5	17.6	2.2
Greece	-3.3	0.2	1.2	-8.2	0.3	2.2	0.8	-10.7	1.6	-1.2	4.8	4.8
Singapore	2.2	1.0	0.7	0.5	-1.3	n/a	2.3	n/a	-4.6	-5.8	3.7	1.6

Table 19: National KPIs Dashboard, Advanced Economies: 5 year trend

## Developing economies



	GROWTH & DEVELOPMENT				INCLUSION				INTERGENERATIONAL EQUITY & SUSTAINABILITY			
	GDP PER CAPITA, \$	LABOR PRODUCTIVITY, \$	HEALTHY LIFE EXPECTANCY, YRS	EMPLOYMENT, %	NET INCOME GINI	POVERTY RATE, %	WEALTH GINI	MEDIAN INCOME, \$	ADJUSTED NET SAVINGS*, %	CARBON INTENSITY, KG PER \$ OF GDP	PUBLIC DEBT, %	DEPENDENCY RATIO, %
Lithuania	15228	54296	66.1	54.3	34.6	2.0	66.5	16.5	20.4	63.7	42.8	50.1
Azerbaijan	6116	34886	64.7	63.2	30.9	2.5	68.3	8.5	18.4	145.4	28.3	38.0
Hungary	14375	56301	67.4	47.9	29.3	0.5	62.5	16.7	11.3	48.3	75.3	47.9
Poland	14581	53737	68.7	51.3	31.6	0.3	73.0	14.2	10.6	82.9	51.3	43.8
Panama	10751	43690	68.1	62.6	46.8	8.4	76.6	13.5	24.6	65.0	38.8	53.4
Romania	9527	37818	66.8	52.8	32.1	4.1	73.0	7.9	22.1	81.8	39.3	48.9
Uruguay	13944	40529	67.9	61.2	36.9	1.3	69.9	19.2	8.3	33.9	64.3	55.9
Latvia	14244	48647	67.1	54.8	35.6	2.6	67.0	14.9	0.5	49.6	34.9	52.2
Malaysia	10877	54169	66.5	58.4	38.4	2.7	80.0	14.1	12.9	113.8	57.4	44.7
Costa Rica	9130	30871	69.8	57.8	46.2	3.9	73.4	14.3	14.8	31.6	42.4	45.4
Chile	14626	47811	70.5	58.0	47.1	2.1	80.5	14.4	4.4	57.3	17.5	45.2
Argentina	10515	31735	67.6	55.9	38.9	4.3	78.7	n/a	10.5	75.4	52.1	56.5
Thailand	5775	23853	66.8	71.5	37.0	0.9	85.9	11.2	12.9	163.1	43.1	39.2
Russian Federation	11039	46903	63.4	60.5	32.8	0.5	92.3	18.8	13.1	213.5	16.4	43.1
Peru	5974	22259	65.7	73.1	45.1	9.0	80.7	10.3	13.6	40.9	24.0	53.2
China	6416	21630	68.5	68.0	50.0	11.1	81.9	6.6	35.7	201.1	42.9	36.6
Kazakhstan	10547	46769	63.3	69.7	27.2	0.3	89.2	10.6	4.6	285.1	21.9	50.3
Bulgaria	7502	40287	66.4	47.2	33.7	4.7	65.8	13.2	11.7	164.3	26.3	51.9
Paraguay	3825	17444	65.2	67.2	46.1	7.0	77.4	11.7	10.2	34.9	24.2	56.6
Turkey	11525	56666	66.2	44.8	36.4	2.6	83.2	13.0	11.2	57.5	32.9	49.7
Iran, Islamic Rep.	5937	50217	66.5	39.6	36.0	0.7	77.9	n/a	8.9	313.4	15.9	40.2
Indonesia	3834	21183	62.1	63.5	42.3	36.4	84.0	n/a	27.1	126.6	27.3	49.0
Croatia	13807	53602	69.4	42.7	30.7	2.2	64.5	15.0	3.4	55.3	86.7	51.1
Macedonia, FYR	5094	37182	67.5	39.9	32.8	8.7	68.2	8.3	14.4	123.9	38.0	41.4
Vietnam	1685	8914	66.6	75.9	37.9	12.0	74.8	6.6	16.2	196.2	58.3	42.5
Venezuela	12794	39440	65.2	59.5	36.4	14.9	83.7	8.5	15.1	120.7	41.5	52.4
Nepal	690	4229	61.2	81.0	33.8	48.4	80.4	3.2	33.0	39.5	28.0	61.8
Dominican Republic	6494	30509	65.1	55.1	47.1	9.1	n/a	8.2	15.0	49.6	34.9	57.8
Mexico	9517	39053	67.4	58.6	46.1	11.0	77.9	6.9	8.3	48.9	54.0	51.7
Brazil	11159	29170	65.5	65.0	46.0	7.6	82.9	12.0	7.5	57.0	73.7	44.7
Georgia	4010	16292	66.4	56.6	38.8	25.3	75.0	5.1	9.9	82.7	41.5	45.7
Nicaragua	1849	11122	63.8	60.3	42.1	17.1	76.7	6.5	12.2	76.1	29.4	54.1
Colombia	7448	28119	65.2	60.7	48.5	13.2	76.2	8.8	3.6	43.5	50.6	45.6
Moldova	1971	14230	64.9	39.9	31.8	1.0	68.0	8.2	14.5	249.9	41.5	34.6
Jordan	3976	41085	65.0	37.2	35.8	n/a	73.0	12.2	16.4	111.6	93.4	64.8
Mongolia	3944	22450	62.1	60.3	33.4	2.7	71.5	8.9	10.6	270.1	n/a	47.6
Bangladesh	973	5433	62.4	67.8	40.4	56.8	78.6	2.9	25.6	71.7	33.9	52.5
Bolivia	2373	13276	62.5	70.6	44.5	12.7	77.9	9.5	8.9	137.1	36.2	63.7
Algeria	4794	45664	66.3	40.0	34.2	n/a	71.7	n/a	27.5	167.0	9.1	52.6

Table 20: National KPIs Dashboard, Developing Economies: Level

## Developing economies

Rank  


	GROWTH & DEVELOPMENT				INCLUSION				INTERGENERATIONAL EQUITY & SUSTAINABILITY			
	GDP PER CAPITA GROWTH, %	LABOR PRODUCTIVITY GROWTH, %	HEALTHY LIFE EXPECTANCY TREND, YRS	EMPLOYMENT TREND, %	NET INCOME GINI TREND	POVERTY TREND, %	WEALTH GINI TREND	MEDIAN INCOME TREND, \$	ADJUSTED NET SAVINGS TREND, %	CARBON INTENSITY TREND, KG PER \$ OF GDP	PUBLIC DEBT TREND, %	DEPENDENCY RATIO TREND, %
Lithuania	4.9	1.5	1.3	6.0	-0.5	-0.2	-0.5	-2.2	0.5	0.8	5.5	2.1
Azerbaijan	0.9	0.9	2.7	2.3	11.8	2.2	3.8	0.6	7.9	9.7	16.9	-1.2
Hungary	2.0	-0.5	1.8	3.0	1.3	0.4	-2.1	-1.4	4.8	-10.8	-5.4	1.8
Poland	3.0	2.4	1.5	0.7	0.7	-0.7	-1.4	-4.9	2.0	-16.9	-3.1	3.6
Panama	6.1	6.1	0.4	1.4	-0.3	-2.3	-0.9	2.3	-11.8	-39.7	1.5	-1.5
Romania	2.8	2.0	1.7	0.8	0.5	-5.8	-0.9	-0.7	16.7	-3.7	5.4	2.1
Uruguay	3.2	3.7	0.3	0.5	-3.5	-0.3	-6.7	4.2	-0.1	-10.2	6.2	-1.1
Latvia	4.7	1.7	2.1	6.9	-0.4	0.2	-0.9	-2.8	1.2	-13.7	-2.7	3.3
Malaysia	3.7	2.3	0.9	1.3	-1.0	0.4	-1.0	0.9	-2.0	-20.4	4.8	-2.2
Costa Rica	2.7	2.3	-0.3	-0.3	0.4	0.0	-2.4	1.1	-1.4	-3.6	12.5	-1.4
Chile	2.7	1.8	1.1	2.6	-1.7	-2.1	3.1	2.5	-2.2	-8.4	6.4	-0.6
Argentina	0.4	1.5	0.5	0.1	-2.3	-0.7	0.2	n/a	0.1	-4.6	14.1	-0.2
Thailand	2.5	1.9	1.5	-0.2	-4.6	-1.7	4.7	1.6	-1.1	-7.8	4.0	0.3
Russian Federation	0.7	2.0	2.4	2.1	-1.0	0.0	4.5	3.2	-0.3	-13.8	5.5	3.9
Peru	3.4	3.5	-2.9	0.2	-2.0	-4.0	-1.0	1.5	0.1	-12.3	1.0	-1.4
China	7.3	7.2	2.1	0.2	-1.5	-21.9	11.5	n/a	0.0	-37.7	9.8	2.1
Kazakhstan	3.1	4.2	3.0	2.3	-1.0	-2.3	2.9	2.9	7.3	-13.7	12.1	4.6
Bulgaria	2.1	2.5	1.2	-0.7	1.9	1.9	-0.8	-0.6	1.2	-6.3	11.8	4.2
Paraguay	3.6	2.3	0.6	1.3	-0.8	-6.5	2.3	2.8	4.5	-15.0	11.2	-3.8
Turkey	2.7	1.4	-2.0	2.1	-1.3	-2.0	0.2	1.8	1.6	-1.9	-6.2	-1.2
Iran, Islamic Rep.	-1.4	-1.7	2.5	1.4	-3.8	-2.4	10.5	n/a	n/a	33.5	7.0	0.7
Indonesia	4.2	3.9	0.6	0.5	3.7	-9.9	1.7	n/a	1.6	-13.3	4.2	-1.6
Croatia	0.5	1.1	1.9	-3.3	3.7	2.1	-1.5	-6.9	-2.6	4.3	23.0	1.4
Macedonia, FYR	2.2	0.5	0.9	2.1	-2.6	2.2	-0.7	-0.8	7.3	-7.6	10.2	0.1
Vietnam	4.8	3.8	0.7	1.3	0.4	-6.0	9.6	1.1	2.2	-21.9	12.5	-0.2
Venezuela	-1.1	0.0	0.4	0.2	-1.4	-12.9	4.0	3.1	-6.1	-2.6	-9.1	-1.4
Nepal	3.0	2.0	1.0	-0.3	-7.7	-25.3	11.8	1.2	3.4	-4.4	-3.7	-8.8
Dominican Republic	3.6	3.5	-0.2	-1.7	0.0	-2.4	n/a	0.1	-1.4	-1.9	9.2	-1.6
Mexico	1.4	0.6	0.8	0.6	0.5	-1.0	2.3	-0.1	-1.0	-8.1	10.8	-3.3
Brazil	0.1	-0.1	1.4	0.5	-0.4	-5.9	1.5	2.0	-3.1	5.0	12.5	-1.8
Georgia	6.2	4.5	2.4	3.1	-5.0	-13.3	7.0	1.2	8.3	-14.5	5.0	0.1
Nicaragua	4.0	1.3	-4.0	2.7	-4.9	-8.0	5.4	1.2	2.9	-1.9	0.1	-4.6
Colombia	3.6	2.4	-2.0	1.6	0.1	-7.2	-0.7	1.6	0.0	-1.9	14.8	-1.4
Moldova	3.9	3.7	2.5	1.9	0.0	-4.2	0.0	0.7	3.2	11.9	17.3	-1.3
Jordan	-0.4	-1.6	-2.2	0.1	-1.7	n/a	6.9	n/a	5.0	-40.6	22.7	-2.6
Mongolia	8.4	9.8	4.1	3.0	-1.1	-6.0	7.2	2.2	5.0	-27.7	n/a	2.8
Bangladesh	5.1	4.1	2.8	0.3	-0.4	-6.2	10.8	0.3	0.6	-1.5	-1.4	-4.6
Bolivia	3.7	3.0	-0.4	0.7	-2.7	-6.5	3.6	0.9	-3.2	-4.7	1.5	-3.9
Algeria	1.4	0.8	0.3	1.2	-1.1	n/a	4.9	n/a	-0.7	-22.8	-0.4	3.4

Table 21: National KPIs Dashboard, Developing Economies: 5 year trend

# Policy and Institutional Indicators (PIIs)

## Advanced Economies

Country	EDUCATION AND SKILLS			BASIC SERVICES AND INFRASTRUCTURE			CORRUPTION AND HONTS			FINANCIAL INTERMEDIATION OF REAL ECONOMY INVESTMENT			ASSET BUILDING & ENTREPRENEURSHIP			EMPLOYMENT			FISCAL TRANSFERS			
	PIIA1	ACCESS	QUALITY	EQI1	PIIA2	BASE AND INFRASTRUCTURE	PIIA3	BASE AND INFRASTRUCTURE	PIIA4	BASE AND INFRASTRUCTURE	PIIA5	BASE AND INFRASTRUCTURE	PIIA6	BASE AND INFRASTRUCTURE	PIIA7	BASE AND INFRASTRUCTURE	PIIA8	BASE AND INFRASTRUCTURE	PIIA9	BASE AND INFRASTRUCTURE	PIIA10	BASE AND INFRASTRUCTURE
Australia	5.73	6.72	5.19	5.28	5.69	5.43	5.93	4.83	5.46	4.21	5.39	5.72	5.07	5.78	5.98	5.98	4.36	4.59	4.13	4.45	4.03	4.88
Austria	5.66	6.66	5.05	4.98	5.61	5.41	5.82	4.91	4.99	4.84	4.74	5.89	3.99	4.91	5.10	4.72	5.27	5.41	5.12	4.46	2.85	5.67
Belgium	5.67	6.64	5.39	4.97	5.30	4.80	5.80	4.94	5.22	4.56	4.65	5.29	3.71	4.73	5.03	4.43	5.17	5.34	5.00	5.08	4.40	5.25
Canada	5.62	5.88	5.37	5.82	5.53	5.35	5.71	4.89	5.27	4.51	5.13	5.63	4.82	5.28	4.90	5.67	4.40	4.66	4.13	4.55	3.86	5.24
Czech Republic	5.29	6.55	4.47	4.84	5.24	5.13	5.34	3.70	3.44	4.08	3.02	4.74	2.90	4.21	4.13	4.29	4.30	4.67	4.14	3.72	2.80	4.84
Denmark	5.88	6.52	5.65	5.48	5.72	5.69	5.76	5.27	5.89	4.64	4.59	5.32	3.88	5.48	5.63	5.34	5.26	5.83	5.90	4.84	3.67	6.00
Estonia	5.72	6.17	4.98	6.01	5.30	5.12	5.49	4.51	5.06	3.97	3.78	4.99	2.87	4.82	5.24	4.41	4.78	5.21	4.36	3.39	2.17	4.80
Finland	6.13	6.54	5.80	6.04	5.88	5.76	6.01	5.42	6.29	4.56	4.91	5.45	4.36	5.83	5.61	6.26	5.57	5.69	5.64	4.34	3.35	5.32
France	5.47	6.27	4.80	5.35	5.48	5.37	5.68	4.75	4.85	4.65	4.51	5.19	3.83	4.88	5.03	4.70	5.06	5.19	4.83	4.78	4.28	5.34
Germany	5.88	6.47	5.20	5.37	5.46	5.31	5.62	4.84	4.85	4.60	4.73	5.31	3.55	4.73	5.41	4.06	5.04	5.61	4.57	3.88	2.57	5.30
Greece	4.85	5.88	3.81	4.86	4.75	4.44	5.06	3.53	3.20	3.87	3.50	3.57	3.43	3.61	3.96	3.27	3.86	3.56	3.77	3.58	3.09	4.06
Iceland	5.88	6.27	5.42	5.36	5.65	5.51	5.80	5.00	5.42	4.57	4.41	4.71	4.70	5.38	5.73	4.98	5.57	5.35	3.78	4.53	3.67	5.19
Ireland	5.66	6.23	5.29	5.47	5.18	5.01	5.38	5.22	5.81	4.64	4.33	5.13	3.59	5.10	5.16	5.04	4.23	4.57	3.90	4.48	4.46	5.46
Israel	5.30	6.29	4.82	4.80	5.14	4.89	5.40	4.27	4.65	3.89	4.67	4.69	4.84	5.06	5.18	4.94	4.47	4.64	4.30	4.58	4.09	5.08
Italy	5.27	6.33	4.32	5.16	4.89	4.56	5.22	3.75	3.18	4.31	3.26	3.88	2.84	3.78	4.15	3.40	4.33	3.77	4.88	4.09	3.34	4.83
Japan	5.57	5.91	4.87	5.94	5.88	5.50	5.86	5.57	5.51	5.63	4.53	5.23	3.83	4.80	5.22	4.59	4.29	4.79	3.80	4.29	3.65	4.82
Korea Rep.	5.46	5.93	4.78	5.67	5.31	5.16	5.46	4.04	3.86	4.51	4.73	4.75	4.77	4.84	5.46	4.21	4.17	4.85	3.79	4.42	4.24	4.89
Luxembourg	5.02	5.82	4.53	4.71	5.59	5.48	5.69	6.62	5.94	5.30	5.09	5.83	4.24	5.22	5.24	5.20	5.19	5.69	4.89	4.91	4.31	5.51
Netherlands	5.83	6.71	5.44	5.33	5.61	5.46	5.75	5.25	5.88	4.62	4.48	5.41	3.34	5.70	5.88	5.72	5.10	5.46	4.74	4.37	3.11	5.64
New Zealand	5.74	6.39	5.41	5.43	5.45	5.05	5.64	5.38	6.27	4.44	5.62	6.03	5.22	5.51	5.66	5.18	4.57	4.67	4.15	4.59	3.85	5.34
Norway	5.89	6.61	5.69	5.66	5.72	5.46	5.99	5.39	6.01	4.76	5.40	5.92	4.89	5.19	5.86	4.52	6.12	6.10	6.14	4.52	3.44	5.80
Portugal	5.35	5.93	4.75	5.38	5.30	5.03	5.57	3.93	4.09	3.78	3.86	4.33	2.88	4.30	4.80	4.00	4.54	4.38	4.89	4.18	3.27	5.08
Singapore	5.73	5.93	5.62	5.74	6.03	5.84	6.22	5.27	6.21	4.33	5.30	5.78	5.78	5.67	5.82	5.52	5.30	5.62	4.79	4.16	4.07	4.24
Slovak Republic	4.79	5.98	3.88	4.51	4.91	4.83	4.89	3.37	2.88	4.06	NA	4.55	NA	3.83	3.89	3.87	4.26	4.30	4.23	3.31	2.81	4.32
Slovenia	5.61	6.57	4.88	5.39	4.98	4.70	5.26	4.22	3.73	4.71	3.94	4.53	3.35	4.50	4.78	4.22	4.64	4.81	4.46	3.86	2.73	4.99
Spain	5.27	6.11	4.38	5.33	5.57	5.40	5.74	4.08	3.65	4.57	3.84	5.29	2.80	4.46	4.54	4.39	4.07	3.84	4.19	4.18	3.27	5.08
Sweden	5.70	6.30	5.41	5.38	5.77	5.69	5.85	5.50	6.14	4.86	5.39	5.43	3.56	5.39	5.62	5.17	5.59	5.18	5.89	4.11	3.20	5.03
Switzerland	5.82	6.53	5.58	5.34	6.06	5.99	6.12	5.32	5.94	4.71	4.85	5.91	3.89	5.53	5.36	5.69	5.05	5.61	4.48	4.88	3.01	5.46
United Kingdom	5.82	6.22	5.07	5.57	5.53	5.39	5.66	5.21	5.58	4.84	4.77	5.66	3.88	5.43	5.54	5.32	4.45	4.88	4.02	4.76	4.58	4.94
United States	5.56	6.40	5.07	5.21	5.50	5.51	5.50	4.88	4.73	4.88	4.45	5.71	3.18	5.77	5.97	5.57	4.06	4.80	3.83	4.21	3.73	4.69

Table 22: Policy and Institutional Indicators, Advanced Economies

# Upper Middle-Income Economies

Country	EDUCATION AND SKILLS			BASIC SERVICES AND INFRASTRUCTURE			CORRUPTION AND RENTS			FINANCIAL INTERMEDIATION OF REAL ECONOMY INVESTMENT			ASSET BUILDING & ENTREPRENEURSHIP			EMPLOYMENT			FISCAL TRANSFERS			
	PI pillar	Sub-PI pillar: Access	Sub-PI pillar: Quality	PI pillar	Sub-PI pillar: Equity	Sub-PI pillar: Basic and Digital Infrastructure	PI pillar	Sub-PI pillar: Health Services and Quality of Life	Sub-PI pillar: Business and Political Ethics	PI pillar	Sub-PI pillar: Financial Intermediation	Sub-PI pillar: Small Business Ownership	PI pillar	Sub-PI pillar: Home and Financial Assets	PI pillar	Sub-PI pillar: Productive Employment	Sub-PI pillar: Wage and Income Distribution	PI pillar	Sub-PI pillar: Tax Code	Sub-PI pillar: Social Protection		
Argentina	4.35	6.12	3.84	3.08	5.08	4.75	5.41	3.25	2.44	4.05	2.55	3.36	1.74	3.32	3.99	3.07	4.60	4.65	4.53	3.99	3.67	4.11
Azerbaijan	n/a	5.10	3.59	n/a	5.31	5.10	5.51	3.78	3.78	3.78	2.80	3.31	2.09	4.55	4.47	4.82	4.71	4.95	4.47	3.82	3.59	3.86
Brazil	4.12	4.86	3.28	4.21	4.98	4.79	5.16	3.03	2.46	3.60	3.15	3.80	2.70	3.31	3.15	3.47	4.81	4.97	4.65	3.54	3.20	3.88
Bulgaria	4.82	6.01	3.56	4.30	4.88	4.63	5.13	3.59	3.17	4.02	3.25	3.99	2.52	4.16	4.49	3.84	4.46	4.60	4.33	3.82	3.21	4.42
Chile	4.72	6.07	4.05	4.05	5.34	4.91	5.77	3.82	4.22	3.42	3.68	4.18	3.14	4.46	4.53	4.40	4.75	5.32	4.17	3.71	3.41	4.02
China	4.93	5.41	4.36	5.02	4.95	5.05	4.84	4.38	4.19	4.57	4.38	4.28	4.48	4.25	4.75	3.77	4.78	5.10	4.46	3.53	3.22	3.84
Colombia	4.23	4.93	3.65	4.11	4.68	4.50	4.87	3.23	2.72	3.74	2.80	3.40	2.19	3.44	3.88	3.03	4.35	4.48	4.24	3.54	4.10	3.08
Costa Rica	4.67	5.37	4.43	4.20	5.37	5.00	5.74	3.91	3.71	4.11	2.36	3.77	2.14	3.63	3.94	3.31	4.82	4.83	4.42	3.70	3.53	3.87
Croatia	4.97	5.83	3.90	5.17	5.32	5.18	5.46	3.33	3.10	3.56	3.40	4.30	2.50	3.85	4.28	3.43	4.37	4.01	4.72	3.71	3.21	4.20
Hungary	4.50	5.46	3.70	4.33	5.19	5.11	5.28	2.97	2.77	3.17	3.31	4.38	2.23	4.21	4.35	4.07	4.37	4.73	4.02	4.14	3.37	4.81
Kazakhstan	4.27	5.31	3.80	3.69	5.14	4.77	5.50	3.97	3.93	4.02	3.09	4.06	2.13	4.43	4.52	4.34	5.25	5.36	5.14	3.23	3.09	3.37
Latvia	5.32	6.05	4.37	5.55	5.39	5.38	5.39	3.87	3.54	4.20	3.38	4.27	2.45	4.16	4.92	3.41	4.51	5.04	3.97	3.58	2.79	4.37
Lithuania	5.15	6.03	4.41	5.02	5.51	5.46	5.56	3.81	3.93	3.69	3.25	4.23	2.27	4.06	4.82	3.51	4.67	5.18	4.20	3.67	2.92	4.53
Malaysia	4.42	5.22	4.77	3.27	5.53	5.07	5.99	4.69	4.63	4.75	4.70	4.26	4.81	4.69	4.54	4.84	4.77	5.60	3.94	3.36	4.40	3.53
Mexico	4.24	4.75	3.68	4.30	5.00	4.78	5.22	3.37	2.69	4.05	2.97	3.85	2.30	3.75	3.99	3.51	4.30	4.64	3.97	3.41	3.42	3.40
Namibia	n/a	3.78	4.13	n/a	3.73	3.44	4.01	3.84	3.92	3.75	3.53	4.24	2.82	4.42	3.79	5.05	4.36	4.26	4.47	4.23	4.55	3.19
Panama	n/a	5.03	3.64	n/a	4.94	4.57	5.30	3.74	3.17	4.30	3.86	4.26	3.46	4.24	4.54	3.94	4.77	5.54	4.31	4.22	5.15	3.28
Peru	4.00	5.48	3.14	3.37	4.27	3.88	4.69	3.32	3.06	3.58	3.05	3.37	2.76	3.94	4.15	3.73	4.27	4.64	3.70	3.39	4.05	2.72
Poland	5.41	6.19	4.45	5.58	5.21	5.14	5.29	4.88	3.72	4.44	3.85	4.21	3.08	4.02	3.97	4.07	4.22	4.82	3.83	3.89	2.44	4.84
Romania	4.49	5.72	3.42	4.34	4.86	4.48	5.25	3.47	3.06	3.88	2.71	3.40	2.02	4.25	4.25	4.24	4.28	4.32	4.25	3.63	2.76	4.81
Russian Federation	5.33	6.27	4.36	5.37	5.12	5.22	5.03	4.08	3.38	4.77	3.04	3.73	2.38	4.00	4.67	3.34	5.00	5.55	4.75	3.80	3.09	4.81
Serbia	n/a	5.68	3.45	n/a	4.87	4.55	5.19	3.46	2.99	3.93	3.03	4.15	1.92	3.34	3.86	2.81	3.99	3.25	4.74	3.74	3.10	4.38
South Africa	n/a	5.01	3.56	n/a	4.66	4.54	4.78	3.67	3.70	4.03	3.57	4.42	2.72	4.41	4.34	4.47	3.88	3.94	3.81	4.67	5.07	4.26
Turkey	4.53	5.31	3.29	4.99	5.27	5.21	5.32	3.88	3.66	4.30	3.19	3.76	2.82	3.74	3.96	3.32	3.83	4.24	3.42	3.70	3.37	4.04
Uruguay	4.58	5.52	3.90	4.34	5.19	4.80	5.38	4.15	4.93	3.36	3.00	3.71	2.28	4.13	4.17	4.10	4.94	5.10	4.78	3.77	3.45	4.09
Venezuela	n/a	5.23	3.92	n/a	4.55	4.08	5.02	2.18	1.86	2.49	2.75	3.79	1.71	3.26	2.81	3.70	4.37	4.17	4.38	3.57	3.57	3.5

Table 23: Policy and Institutional Indicators, Upper Middle-Income Economies

# Lower Middle-Income Economies

Country	EDUCATION AND SKILLS				BASIC SERVICES AND INFRASTRUCTURE				CORRUPTION AND RENTS				FINANCIAL INTERMEDIATION OF REAL ECONOMY INVESTMENT				ASSET BUILDING & ENTREPRENEURSHIP				EMPLOYMENT				FISCAL TRANSFERS			
	FIELD	ACCESS	QUALITY	EQUALITY	FIELD	INDICATOR	HEALTH SERVICES AND INFRASTRUCTURE	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD
Algeria	4.80	5.46	4.28	4.00	4.61	4.44	5.17	3.27	3.43	3.11	2.89	3.16	2.92	3.50	3.90	3.10	4.27	3.80	3.76	3.85	4.78	3.22	3.24	3.20	3.24	4.43	3.75	
Angola	n/a	4.87	3.78	n/a	4.29	3.67	4.02	3.09	3.14	3.05	2.44	3.07	1.80	3.44	4.05	2.83	3.80	3.76	3.85	4.04	4.19	3.22	3.24	3.20	3.24	4.43	3.75	
Armenia	5.13	4.92	3.97	6.49	5.19	4.89	5.49	3.88	3.49	4.27	2.88	3.15	2.61	4.28	4.43	4.12	3.97	3.90	3.90	4.04	3.80	3.80	3.49	3.49	4.12	3.80	3.49	
Bahia	4.41	5.03	4.03	4.16	4.00	3.77	4.24	2.83	2.95	3.62	3.02	3.88	2.16	3.21	3.28	3.15	4.42	4.55	4.28	4.28	3.23	3.23	3.13	3.13	3.83	3.13	3.83	
Cameroon	3.47	3.73	3.77	2.90	3.25	2.61	3.89	3.14	2.78	3.50	3.18	2.74	2.78	3.19	3.38	3.00	4.09	4.52	3.85	2.91	3.53	2.91	3.53	2.91	3.53	2.91	3.53	
Dominican Republic	4.31	4.21	3.77	4.97	4.74	4.69	4.70	2.89	2.95	3.43	3.18	3.89	2.48	3.48	3.54	3.43	4.08	4.24	3.93	4.24	3.93	3.19	3.19	2.98	3.19	2.98	3.19	
Egypt	4.39	4.56	3.17	5.44	4.71	4.64	4.78	3.65	3.27	3.58	2.28	2.64	1.92	3.22	3.61	2.83	3.51	3.53	3.50	3.27	3.27	3.17	3.17	3.37	3.17	3.37	3.17	
El Salvador	4.82	4.98	3.66	5.33	4.12	3.71	4.52	3.15	2.76	3.53	2.69	3.31	2.06	3.20	3.61	2.79	4.03	4.41	3.86	2.94	3.49	3.49	3.49	2.99	3.49	2.99	3.49	
Georgia	5.29	5.07	4.28	6.38	5.07	4.67	5.46	3.69	4.23	3.16	3.50	3.72	3.28	3.73	4.53	2.82	4.28	4.11	4.45	3.82	3.82	3.82	3.82	3.82	3.82	3.82	3.82	
Ghana	3.95	4.37	4.18	3.28	3.88	3.56	4.20	3.87	3.29	4.45	2.49	3.37	2.80	3.18	3.89	2.47	4.86	4.78	4.54	4.54	3.45	3.45	3.45	3.45	3.45	3.45	3.45	
Guatemala	4.05	4.90	4.03	3.52	3.90	3.48	4.32	3.35	2.82	3.89	3.04	3.74	2.34	3.47	3.70	3.24	4.29	4.29	3.87	3.87	3.08	3.08	3.08	3.08	2.47	3.08	2.47	
Honduras	4.27	4.61	4.67	3.55	4.10	3.70	4.49	3.49	2.96	4.03	3.42	3.31	3.53	3.84	3.91	3.77	4.10	4.60	3.99	2.84	3.54	3.54	3.54	2.14	3.54	2.14	3.54	
India	3.94	3.53	3.67	4.82	4.32	4.22	4.42	4.56	4.25	4.77	3.78	3.83	3.72	3.40	3.51	3.29	3.70	4.31	3.98	2.85	3.46	3.46	3.46	2.25	3.46	2.25	3.46	
Indonesia	4.79	4.94	4.72	4.80	4.62	4.24	4.90	4.18	3.82	4.54	3.46	3.95	2.97	3.80	3.61	3.49	3.93	4.50	3.37	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44	
Iraq Islamic Rep.	4.85	5.04	3.99	5.52	4.86	4.48	5.44	3.68	3.99	3.93	2.95	4.14	1.76	4.38	4.94	4.44	3.53	3.48	3.57	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	
Jordan	4.81	4.55	4.37	5.49	5.04	4.57	5.51	3.97	4.53	3.40	3.52	3.29	3.76	3.82	3.73	3.51	4.20	4.22	4.18	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	
Kyrgyz Republic	5.05	4.78	4.02	6.34	4.40	3.88	4.92	2.76	2.93	2.59	2.73	3.31	2.25	3.88	4.12	3.84	3.96	4.32	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	
Laos PDR	3.15	3.53	3.95	1.97	3.80	3.60	4.20	3.70	3.76	3.63	3.76	3.66	3.86	3.03	3.80	2.46	4.24	4.66	3.82	3.82	3.16	3.16	3.16	3.16	3.16	3.16	3.16	
Lesotho	3.89	3.18	4.28	3.82	3.65	2.76	4.53	3.61	3.36	3.86	2.27	2.56	1.98	3.21	3.77	2.86	3.84	3.91	3.77	n/a	n/a	5.43	5.43	n/a	5.43	n/a	5.43	
Macedonia, FR	4.76	4.73	4.52	5.01	5.05	4.97	5.19	3.84	3.81	3.87	3.59	4.17	3.00	3.35	4.41	2.29	4.21	3.43	3.43	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	
Mauritania	2.29	2.24	2.33	2.31	2.55	1.76	3.34	2.76	2.82	2.75	2.70	2.50	2.80	3.25	4.17	2.32	3.01	2.46	3.58	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	
Moldova	5.18	5.15	4.90	5.40	4.62	4.40	4.84	2.91	2.40	3.41	2.62	3.13	2.12	3.10	4.03	2.11	4.70	4.75	4.65	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	
Mongolia	4.68	5.33	3.91	4.89	4.12	4.13	4.10	2.81	2.80	2.82	3.22	3.08	2.36	3.49	4.28	2.71	4.52	4.55	4.49	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	
Morocco	3.53	4.03	3.53	3.02	5.02	4.86	3.17	3.64	3.68	3.60	2.88	3.19	2.57	3.81	3.93	3.69	3.89	3.88	3.91	3.99	3.99	4.73	4.73	4.73	4.73	4.73	4.73	
Nicaragua	4.11	4.01	3.33	4.49	3.68	2.86	4.50	2.62	2.45	2.80	2.96	2.65	2.36	3.81	4.03	3.38	3.89	4.40	3.39	2.74	3.10	3.10	3.10	2.38	3.10	2.38	3.10	
Nigeria	2.96	2.98	3.30	1.82	3.98	3.06	3.70	3.32	2.92	4.13	2.28	2.78	1.74	2.97	3.38	2.56	4.26	4.81	3.71	2.87	2.87	3.00	3.00	1.84	3.00	1.84		
Pakistan	3.20	3.05	3.28	3.26	3.95	3.33	4.06	3.58	3.14	4.02	2.23	2.25	2.11	3.56	3.87	3.26	3.49	4.00	2.97	2.88	2.88	3.36	3.36	2.40	3.36	2.40		
Paraguay	4.82	4.21	3.88	5.78	4.26	3.72	4.71	3.00	2.29	3.72	3.02	3.02	2.43	3.41	3.96	2.86	4.17	4.78	3.57	3.48	3.48	4.45	4.45	2.50	3.48	2.50		
Philippines	4.35	5.17	3.75	4.12	4.17	3.64	4.79	3.50	3.05	3.96	3.46	3.75	3.21	3.31	3.55	3.07	4.09	4.63	3.55	3.47	3.47	3.63	3.63	3.10	3.63	3.10		
Senegal	2.98	2.67	3.80	2.45	3.66	2.94	4.18	3.69	3.48	3.89	2.78	2.82	2.86	2.89	3.20	2.99	4.11	4.21	4.02	2.79	2.79	3.29	3.29	2.90	3.29	2.90		
Sierra Leone	n/a	5.26	3.97	n/a	4.55	4.09	5.02	3.77	3.42	4.11	3.71	4.40	3.02	3.88	3.83	3.34	4.24	4.43	4.43	4.05	3.23	3.23	3.19	3.19	3.23	3.19	3.23	
Thailand	4.85	5.10	4.45	4.99	4.81	4.54	5.08	3.75	3.29	4.21	4.59	4.63	4.63	3.75	3.90	3.89	4.38	4.85	3.89	3.89	3.87	3.87	3.87	3.87	3.87	3.87	3.87	
Tunisia	4.12	4.26	3.88	4.12	5.07	4.81	5.33	3.67	3.51	3.84	3.45	3.27	3.63	3.78	4.30	3.26	3.59	3.63	3.55	3.64	3.64	4.19	4.19	3.09	3.64	3.09		
Ukraine	5.85	6.10	5.02	6.46	4.75	4.34	5.15	3.81	2.76	2.87	3.41	2.92	2.02	3.29	3.85	2.74	4.78	4.92	5.03	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	
Vietnam	4.57	5.04	4.32	4.35	4.72	4.55	4.88	3.84	3.41	4.27	3.08	3.55	2.61	3.82	4.11	3.24	4.84	4.99	4.70	4.20	3.27	3.27	3.59	3.27	3.59	2.94		
Yemen	2.70	2.47	2.56	3.08	3.11	2.72	3.51	2.40	2.15	2.66	1.67	1.70	1.66	2.91	3.73	2.90	3.27	3.21	3.34	3.12	3.12	3.88	3.88	2.96	3.12	2.96		
Zambia	n/a	n/a	3.23	3.43	2.78	2.45	3.12	3.63	3.34	3.93	2.72	3.26	2.19	3.19	3.65	2.52	3.83	3.90	3.77	3.40	3.40	4.19	4.19	2.61	3.40	2.61		

Table 24: Policy and Institutional Indicators, Lower Middle-Income Economies

## Low Income Economies

	EDUCATION AND SKILLS			BASIC SERVICES AND INFRASTRUCTURE			CORRUPTION AND BENTS			FINANCIAL INTERVENTION OF REAL ECONOMIC INVESTMENT			ASSET BUILDING & ENTREPRENEURSHIP			EMPLOYMENT			FISCAL TRANSFERS			
	PILLAR	ACCESS	QUALITY	PILLAR	BASED AND INFRA-STRUCTURE	HEALTHY AND QUALITY OF LIFE	PILLAR	BUSINESS ETHICS	CONSUMER POLITICAL	PILLAR	FINANCIAL INCLUSION	FINANCIAL RESERVES	PILLAR	SHARE OWNERSHIP	PILLAR	INDUSTRIAL COMPETITIVENESS	PILLAR	TAXATION	PILLAR	GOVERNANCE		
Bangladesh	3.30	3.39	3.03	3.47	3.45	3.12	3.78	3.35	2.42	4.29	3.10	3.19	3.02	3.46	3.38	3.54	3.73	4.38	3.19	2.90	3.54	2.25
Burundi	3.31	3.03	3.24	3.65	2.62	1.98	3.26	3.10	2.53	3.67	2.38	2.84	1.91	2.72	3.56	1.88	3.73	3.67	3.89	2.88	3.41	1.95
Cambodia	3.05	3.30	2.95	2.92	3.35	2.98	3.83	3.48	3.17	3.80	3.56	3.11	4.00	3.23	2.74	3.70	4.35	4.63	3.89	2.88	3.63	2.13
Chad	2.38	2.25	2.35	2.55	2.23	1.45	3.01	2.42	2.12	2.73	2.30	2.16	2.30	2.68	2.89	2.47	3.77	4.00	3.55	na	3.74	na
Kenya	4.37	3.89	4.39	4.84	3.50	3.15	3.85	3.84	3.16	4.52	3.16	3.82	2.30	2.78	3.46	2.19	4.48	4.70	4.21	3.31	4.61	2.61
Madagascar	2.80	2.78	3.25	2.37	2.23	1.55	2.90	2.70	2.61	2.79	2.45	2.95	1.97	2.88	3.48	1.88	4.55	4.40	4.69	3.42	4.54	2.31
Malawi	3.51	3.64	3.27	3.61	2.73	1.89	3.58	2.90	2.89	2.91	2.48	2.91	2.46	3.06	3.14	2.98	4.17	4.94	3.41	3.14	4.35	1.94
Mali	2.65	2.58	3.58	1.80	3.02	2.25	3.79	3.34	3.19	3.50	2.63	2.82	2.44	2.99	3.55	2.42	3.30	4.04	3.76	2.92	3.72	2.12
Mozambique	3.11	2.88	3.51	2.94	2.48	2.11	2.84	2.85	2.73	2.97	2.22	3.20	2.25	3.14	3.88	2.46	3.30	3.70	4.11	3.34	4.04	2.53
Nepal	4.07	3.90	3.77	4.56	3.64	3.33	3.95	3.65	2.92	4.37	3.36	3.32	3.20	3.55	3.75	3.34	4.23	5.06	3.40	3.05	3.92	2.17
Rwanda	3.14	3.46	3.66	2.29	3.55	2.91	4.19	4.71	5.54	3.88	3.60	3.39	3.82	3.41	3.48	3.35	5.00	5.41	4.59	3.39	3.86	2.33
Sierra Leone	2.73	2.65	2.99	2.54	2.55	1.92	3.17	2.62	2.59	2.66	2.48	2.91	2.44	2.75	3.23	2.27	4.43	4.78	4.08	3.22	4.63	1.81
Tajikistan	4.82	4.28	4.22	5.94	4.13	3.55	4.71	3.76	4.24	3.33	2.63	3.17	2.09	3.52	4.28	2.78	4.83	4.68	4.97	2.87	2.89	2.84
Tanzania	3.82	3.57	4.02	3.87	2.81	2.26	3.37	3.65	3.26	4.03	2.86	3.18	2.54	3.88	4.33	3.68	4.35	4.74	3.36	2.85	3.47	2.22
Uganda	3.31	3.29	3.45	3.19	2.93	2.50	3.35	3.33	2.86	3.80	2.90	3.34	2.57	2.75	3.37	1.94	3.99	4.65	3.34	2.85	3.66	2.04
Zimbabwe	4.00	3.74	3.83	4.42	3.34	3.13	3.56	3.07	2.71	3.42	2.78	2.78	2.77	2.64	3.40	1.88	4.15	4.42	3.88	3.36	4.51	2.22

Table 25: Policy and Institutional Indicators, Low Income Economies

# Inclusive Development Index

## 2017 Rankings

TREND    ● RECEDING    ● SLOWLY RECEDING    ● STABLE    ● SLOWLY ADVANCING    ● ADVANCING

ES				DEVELOPING ECONOMIES							
RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)	RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)	RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)
1	Norway	6.02	1.87	1	Lithuania	4.73	2.01	40	Philippines	4.00	-0.52
2	Luxembourg	5.86	-2.49	2	Azerbaijan	4.73	-0.46	41	El Salvador	4.00	1.10
3	Switzerland	5.75	1.85	3	Hungary	4.57	3.14	42	Serbia	4.00	-5.06
4	Iceland	5.48	4.58	4	Poland	4.57	1.12	43	Cambodia	3.97	0.27
5	Denmark	5.31	1.03	5	Romania	4.53	5.17	44	Tunisia	3.94	-3.52
6	Sweden	5.30	-0.84	6	Uruguay	4.53	4.23	45	Morocco	3.89	0.66
7	Netherlands	5.28	-1.69	7	Latvia	4.52	3.75	46	Guatemala	3.83	1.55
8	Australia	5.18	0.29	8	Panama	4.52	0.99	47	Ukraine	3.67	-3.16
9	New Zealand	5.09	3.75	9	Costa Rica	4.47	-0.58	48	Honduras	3.67	-1.76
10	Austria	5.05	0.28	10	Chile	4.46	2.07	49	Lao PDR	3.66	-2.75
11	Finland	5.04	-3.10	11	Argentina	4.43	-0.11	50	Armenia	3.66	-1.86
12	Ireland	5.01	2.28	12	Thailand	4.42	1.12	51	Tanzania	3.59	-0.09
13	Germany	4.99	1.91	13	Russian Federation	4.42	1.24	52	Pakistan	3.56	-0.03
14	Korea, Rep.	4.95	1.44	14	Peru	4.41	1.33	53	Tajikistan	3.52	-3.68
15	Canada	4.90	0.59	15	China	4.40	1.65	54	Jordan	3.50	n/a
16	Belgium	4.89	-0.71	16	Malaysia	4.39	1.94	55	Ghana	3.50	-4.97
17	Slovak Republic	4.88	-0.11	17	Kazakhstan	4.37	4.36	56	Cameroon	3.50	-1.46
18	France	4.83	-1.94	18	Bulgaria	4.37	-1.11	57	Kyrgyz Republic	3.49	-4.48
19	Czech Republic	4.78	0.89	19	Paraguay	4.31	3.97	58	Senegal	3.48	-4.07
20	Slovenia	4.75	-6.13	20	Turkey	4.30	2.62	59	Mali	3.39	0.83
21	United Kingdom	4.69	-0.61	21	Iran, Islamic Rep.	4.29	-1.54	60	India	3.38	2.50
22	Estonia	4.52	-0.36	22	Indonesia	4.29	0.81	61	Zimbabwe	3.37	n/a
23	United States	4.44	0.71	23	Croatia	4.28	-5.98	62	Chad	3.31	-2.90
24	Japan	4.36	-0.61	24	Macedonia, FYR	4.27	2.72	63	Namibia	3.28	1.07
25	Israel	4.28	3.38	25	Vietnam	4.25	-1.34	64	Uganda	3.28	-4.16
26	Spain	4.24	-6.48	26	Venezuela	4.25	1.61	65	Kenya	3.23	-4.33
27	Italy	4.18	-4.85	27	Nepal	4.24	7.10	66	Burundi	3.22	-3.23
28	Portugal	3.94	-4.61	28	Dominican Republic	4.14	-0.85	67	Sierra Leone	3.21	4.10
29	Greece	3.68	-7.87	29	Mexico	4.13	-0.72	68	Rwanda	3.20	-8.44
n/a	Singapore	n/a	n/a	30	Brazil	4.13	-0.35	69	Lesotho	3.12	7.80
				31	Georgia	4.09	6.82	70	South Africa	3.09	5.50
				32	Nicaragua	4.08	2.85	71	Nigeria	3.07	-2.99
				33	Colombia	4.08	0.18	72	Madagascar	3.05	-5.10
				34	Moldova	4.08	1.43	73	Egypt	2.94	n/a
				35	Mongolia	4.04	5.56	74	Mauritania	2.89	-6.74
				36	Bangladesh	4.03	0.77	75	Yemen	2.87	n/a
				37	Bolivia	4.02	1.06	76	Zambia	2.84	-9.69
				38	Albania	4.02	-5.58	77	Malawi	2.83	-8.49
				39	Sri Lanka	4.01	-2.14	78	Mozambique	2.79	-9.27
								n/a	Algeria	n/a	n/a

Table 26: Inclusive Development Index, Ranking 2017

## Advanced Economies

ECONOMY	RANK OVERALL	SCORE OVERALL	GROWTH		INCLUSION		INTERGENERATIONAL EQUITY	
			SCORE	RANK	SCORE	RANK	SCORE	RANK
Norway	1	6.02	6.36	1	5.67	2	6.03	1
Luxembourg	2	5.86	6.11	4	5.47	4	6.00	3
Switzerland	3	5.75	6.13	3	5.43	6	5.68	5
Iceland	4	5.48	5.51	5	5.77	1	5.17	14
Denmark	5	5.31	5.33	9	5.11	11	5.49	8
Sweden	6	5.30	5.34	8	4.96	14	5.59	7
Netherlands	7	5.28	5.28	11	5.27	9	5.29	11
Australia	8	5.18	5.43	6	4.72	16	5.40	9
New Zealand	9	5.09	4.94	16	4.64	18	5.67	6
Austria	10	5.05	5.15	13	5.01	12	4.98	17
Finland	11	5.04	4.83	19	5.36	7	4.91	19
Ireland	12	5.01	5.26	12	4.63	19	5.13	15
Germany	13	4.99	4.98	15	4.91	15	5.06	16
Korea, Rep.	14	4.95	4.60	22	4.23	23	6.00	2
Canada	15	4.90	5.32	10	4.68	17	4.70	21
Belgium	16	4.89	4.76	20	5.45	5	4.47	24
Slovak Republic	17	4.88	3.80	29	5.62	3	5.22	13
France	18	4.83	4.73	21	5.31	8	4.44	25
Czech Republic	19	4.78	4.07	26	4.99	13	5.28	12
Slovenia	20	4.75	4.09	25	5.25	10	4.92	18
United Kingdom	21	4.69	4.88	17	4.63	20	4.55	23
Estonia	22	4.52	4.02	27	3.69	27	5.86	4
United States	23	4.44	5.35	7	3.53	28	4.44	26
Japan	24	4.36	5.02	14	4.34	22	3.73	29
Israel	25	4.28	4.84	18	3.09	29	4.91	20
Spain	26	4.24	4.17	24	3.97	24	4.58	22
Italy	27	4.18	4.24	23	4.36	21	3.94	28
Portugal	28	3.94	3.99	28	3.87	25	3.96	27
Greece	29	3.68	3.64	30	3.80	26	3.58	30
Singapore	n/a	n/a	6.24	2	n/a	n/a	5.40	10

Table 27: Inclusive Development Index, Advanced Economies: Level

## Advanced Economies

ECONOMY	RANK OVERALL IDI TREND	GROWTH			INCLUSION		INTERGENERATIONAL EQUITY	
		5 YEAR TREND (%)	5 YEAR TREND (%)	RANK	5 YEAR TREND (%)	RANK	5 YEAR TREND (%)	RANK
Iceland	1	4.6	2.5	13	-2.4	19	16.3	1
New Zealand	2	3.8	3.4	8	5.5	2	2.7	4
Israel	3	3.4	7.2	2	1.3	8	1.1	7
Ireland	4	2.3	3.3	10	-7.5	26	11.8	2
Germany	5	1.9	4.0	5	-1.8	18	3.7	3
Norway	6	1.9	1.3	19	1.9	5	2.5	5
Switzerland	7	1.8	1.7	18	9.0	1	-4.1	24
Korea, Rep.	8	1.4	4.8	4	3.3	3	-2.2	15
Denmark	9	1.0	0.9	21	1.6	7	0.7	8
Czech Republic	10	0.9	3.6	6	0.9	10	-1.1	11
United States	11	0.7	3.6	7	-2.5	20	0.0	9
Canada	12	0.6	2.7	11	1.7	6	-2.7	16
Australia	13	0.3	1.9	16	2.3	4	-2.9	18
Austria	14	0.3	1.8	17	1.2	9	-2.1	14
Slovak Republic	15	-0.1	4.8	3	-0.2	13	-3.4	19
Estonia	16	-0.4	12.2	1	-13.5	29	1.6	6
United Kingdom	17	-0.6	3.4	9	-1.5	17	-3.8	22
Japan	18	-0.6	2.3	15	-0.2	13	-4.7	25
Belgium	19	-0.7	1.0	20	0.4	11	-3.8	23
Sweden	20	-0.8	2.6	12	-1.4	16	-3.4	20
Netherlands	21	-1.7	-0.2	24	-3.8	21	-1.1	10
France	22	-1.9	0.7	22	-1.1	15	-5.6	26
Luxembourg	23	-2.5	0.5	23	-5.4	22	-2.7	17
Finland	24	-3.1	-0.5	25	-0.3	14	-8.3	28
Portugal	25	-4.6	-2.2	29	-7.9	27	-3.6	21
Italy	26	-4.9	-1.6	27	-7.1	24	-5.7	27
Slovenia	27	-6.1	-1.5	26	-7.1	23	-8.6	29
Spain	28	-6.5	-1.9	28	-7.3	25	-9.6	30
Greece	29	-7.9	-8.6	30	-12.5	28	-1.5	13
Singapore	n/a	n/a	2.4	14	n/a	n/a	-1.2	12

Table 28: Inclusive Development Index, Advanced Economies: Trend

## Developing Economies

ECONOMY	RANK OVERALL	SCORE OVERALL	GROWTH		INCLUSION		INTERGENERATIONAL EQUITY	
			SCORE	RANK	SCORE	RANK	SCORE	RANK
Lithuania	1	4.73	3.70	10	4.80	4	5.70	12
Azerbaijan	2	4.73	3.65	18	4.69	10	5.84	6
Hungary	3	4.57	3.48	23	5.18	1	5.06	37
Poland	4	4.57	3.67	16	4.69	8	5.35	24
Panama	8	4.52	3.97	3	3.77	29	5.80	8
Romania	5	4.53	3.38	25	4.45	15	5.76	9
Uruguay	6	4.53	3.93	5	4.67	12	4.98	42
Latvia	7	4.52	3.69	11	4.69	9	5.17	32
Malaysia	16	4.39	3.82	8	4.13	22	5.21	30
Costa Rica	9	4.47	3.67	17	3.99	25	5.74	11
Chile	10	4.46	4.00	2	3.76	30	5.62	13
Argentina	11	4.43	3.51	22	4.73	7	5.07	36
Thailand	12	4.42	3.94	4	3.96	28	5.38	23
Russian Federation	13	4.42	3.69	12	4.14	21	5.43	20
Peru	14	4.41	3.87	7	3.62	40	5.74	10
China	15	4.40	3.91	6	3.24	53	6.04	2
Kazakhstan	17	4.37	4.09	1	4.27	18	4.75	50
Bulgaria	18	4.37	3.09	44	4.73	6	5.27	27
Paraguay	19	4.31	3.62	19	3.75	31	5.57	15
Turkey	20	4.30	3.23	32	4.09	23	5.57	16
Iran, Islamic Rep.	21	4.29	2.83	57	5.01	2	5.03	39
Indonesia	22	4.29	3.34	27	3.57	43	5.94	3
Croatia	23	4.28	3.30	29	4.99	3	4.55	56
Macedonia, FYR	24	4.27	2.73	59	4.50	13	5.57	14
Vietnam	25	4.25	3.68	13	3.97	27	5.09	35
Venezuela	26	4.25	3.68	14	3.75	32	5.30	26
Nepal	27	4.24	3.35	26	3.25	51	6.11	1
Dominican Republic	28	4.14	3.26	31	3.66	37	5.50	18
Mexico	29	4.13	3.68	15	3.55	45	5.17	33
Brazil	30	4.13	3.80	9	3.58	42	5.01	40
Georgia	31	4.09	3.19	36	3.66	36	5.42	21
Nicaragua	32	4.08	3.13	40	3.64	39	5.49	19
Colombia	33	4.08	3.51	21	3.51	48	5.22	29
Moldova	34	4.08	2.29	74	4.68	11	5.27	28
Mongolia	35	4.04	3.21	34	4.49	14	4.41	61
Bangladesh	36	4.03	3.32	28	2.88	61	5.90	4
Bolivia	37	4.02	3.54	20	3.65	38	4.87	46
Albania	38	4.02	2.94	53	4.35	16	4.76	49
Sri Lanka	39	4.01	3.11	43	3.75	33	5.18	31

Table 29: Inclusive Development Index, Developing Economies: Level

## Developing Economies

ECONOMY	RANK IDI TREND	GROWTH			INCLUSION		INTERGENERATIONAL EQUITY	
		5 YEAR TREND (%)	5 YEAR TREND (%)	RANK	5 YEAR TREND (%)	RANK	5 YEAR TREND (%)	RANK
Lesotho	1	7.8	13.0	6	10.9	3	5.2	6
Nepal	2	7.1	1.6	50	14.7	1	6.5	4
Georgia	3	6.8	10.2	11	7.3	5	4.6	7
Mongolia	4	5.6	14.8	4	-0.5	39	6.0	5
South Africa	5	5.5	21.2	1	8.1	4	-1.7	45
Romania	6	5.2	5.0	26	2.1	24	7.8	2
Kazakhstan	7	4.4	8.6	13	1.4	29	3.6	12
Uruguay	8	4.2	2.8	41	11.4	2	-0.6	37
Sierra Leone	9	4.1	-6.0	77	-1.2	42	14.2	1
Paraguay	10	4.0	3.2	39	3.9	12	4.5	9
Latvia	11	3.7	14.8	3	-0.6	41	0.9	23
Hungary	12	3.1	7.0	15	-0.6	40	4.5	8
Nicaragua	13	2.8	-2.2	73	6.0	8	3.8	10
Macedonia, FYR	14	2.7	5.8	19	1.7	28	2.1	16
Turkey	15	2.6	1.0	55	3.2	17	3.1	13
India	16	2.5	4.8	29	3.3	16	0.9	22
Chile	17	2.1	6.1	18	1.9	25	-0.5	34
Lithuania	18	2.0	12.3	7	-0.3	35	-1.9	46
Malaysia	19	1.9	4.7	30	2.2	22	-0.2	29
China	20	1.7	4.9	27	2.6	21	-1.0	40
Venezuela	21	1.6	-0.1	68	6.5	6	-0.5	33
Guatemala	22	1.6	1.6	51	1.0	30	1.9	18
Moldova	23	1.4	11.2	9	1.9	26	-2.7	49
Peru	24	1.3	-2.8	74	6.5	7	1.1	21
Russian Federation	25	1.2	6.8	16	-0.5	38	-1.0	41
Thailand	26	1.1	2.7	43	2.9	19	-1.3	42
Poland	27	1.1	4.7	31	-2.0	48	1.5	19
El Salvador	28	1.1	0.4	60	5.2	11	-1.6	44
Namibia	29	1.1	12.1	8	-8.6	63	0.1	27
Bolivia	30	1.1	0.3	64	3.9	14	-0.4	31
Panama	31	1.0	5.2	23	3.9	13	-3.4	58
Mali	32	0.8	0.3	62	-0.4	36	1.9	17
Indonesia	33	0.8	2.7	44	-1.6	46	1.2	20
Bangladesh	34	0.8	5.1	24	-6.9	58	2.6	15
Morocco	35	0.7	4.0	36	5.3	10	-3.8	62
Cambodia	36	0.3	-0.9	69	0.7	33	0.7	25
Colombia	37	0.2	0.3	63	5.4	9	-3.1	54
Pakistan	38	0.0	5.3	22	-7.7	60	3.8	11
Tanzania	39	-0.1	1.6	52	-1.4	45	-0.3	30

Table 30: Inclusive Development Index, Developing Economies: Trend

## References

Abraham, Arthur, and Habib Sesay (1993). “Regional Politics and Social Service Provision Since Independence.” In C. Magbaily Fyle, ed. *The State and the Provision of Social Services in Sierra Leone Since Independence, 1961–1991*. Oxford, U.K.: Codesaria.

Acemoglu, Daron (2005). “Politics and Economics in Weak and Strong States.” *Journal of Monetary Economics* 52: 1199–226.

Acemoglu, Daron, Davide Cantoni, Simon Johnson, and James A. Robinson (2010). “From Ancien Régime to Capitalism: The Spread of the French Revolution as a Natural Experiment.” In Jared Diamond and James A. Robinson, eds. *Natural Experiments in History*. Cambridge, Mass.: Harvard University Press.

Acemoglu, Daron, Simon Johnson, and James A. Robinson (2001). “The Colonial Origins of Comparative Development: An Empirical Investigation.” *American Economic Review* 91: 1369–1401.

(2005b). “Institutions as the Fundamental Cause of Long-Run Growth.” In Philippe Aghion and Steven Durlauf, eds. *Handbook of Economic Growth*. Amsterdam: North-Holland.

Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pablo Querubín (2008). “When Does Policy Reform Work? The Case of Central Bank Independence.” *Brookings Papers in Economic Activity*, 351–418.

Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pierre Yared (2008). “Income and Democracy.”

(2009). “Reevaluating the Modernization Hypothesis.” *Journal of Monetary Economics* 56: 1043–58.

Acemoglu, Daron, and James A. Robinson (2000a). “Why Did the West Extend the Franchise? Growth, Inequality and Democracy in Historical Perspective.” *Quarterly Journal of Economics* 115: 1167–99.

Daron Acemoglu and the political scientist James A. Robinson. “Why Nations Fail, The Origins of Power, Prosperity and Poverty” 2012.

Koske, I. et al. (2015), “The 2013 update of the OECD's database on product market regulation: Policy insights for OECD and non-OECD countries”, OECD Economics Department Working Papers, No. 1200, OECD Publishing.

World Economic Forum, The Inclusive Growth and Development Report 2017.

Andrews, Dan, Chiara Criscuolo, and Peter N. Gal. "Frontier Firms, Technology Diffusion and Public Policy: Micro Evidence from OECD Countries." The Future of Productivity: Main Background Papers. OECD, 2015. Available at <http://www.oecd.org/eco/growth/Frontier-Firms-Technology-Diffusionand-Public-Policy-Micro-Evidence-from-OECD-Countries.pdf>.

Baldwin, Richard. The Great Convergence: Information Technology and the New Globalization. Cambridge, MA: The Belknap Press of Harvard University Press, 2016.

United Nations Environment Programme. "Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication." UNEP, 2011. Available at <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=126&menu=35>.

United Nations Population Division. "World Population Prospects, the 2015 Revision." 2015. Available at <https://esa.un.org/unpd/wpp/>.

"World Trade Report 2015: Speeding Up Trade: Benefits and Challenges of Implementing the WTO Trade Facilitation Agreement." WTO, 2015. Available at [https://www.wto.org/english/res\\_e/booksp\\_e/world\\_trade\\_report15\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/world_trade_report15_e.pdf).

"World Trade Report." WTO, 2013. Available at [https://www.wto.org/english/res\\_e/booksp\\_e/wtr13-2b\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/wtr13-2b_e.pdf).

World Bank Data. Available at <https://data.worldbank.org/>

Web research at Wikipedia, available at: [https://en.wikipedia.org/wiki/Main\\_Page](https://en.wikipedia.org/wiki/Main_Page)

The Heritage Foundation. Available at <https://www.heritage.org/index/>

Geography and Economic Development, 1998, by Jeffrey D. Sachs, John Luke Gallup, Andrew D. Mellinger.

Evolution, consequences and future of plant and animal domestication, 2002, by Jared Diamond.

Robbins L. (1935). An Essay on the Nature and Significance of Economic Science.

Thomas Kincaid McCraw (September 1940 - November 2012) from his book "Prophet of Innovation: Joseph Schumpeter and Creative Destruction", 2007.

