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GLOBALIZATION AND INEQUALITY IN ITALY AND EUROPE

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INTRODUCTION

In recent decades, the topic of globalization has become increasingly important and contemporary. We are aware of the importance and epochal scope of such a phenomenon, which invests and influences almost all aspects of our lives, we feel its presence, although we often fail to grasp its dynamics totally. And we are even less aware of its effects, and how truly globalization can and does affect workers' wages, companies' profits, and our purchasing power. Globalization is blamed for all ills, even those that have internal causes in individual countries.

As the thesis shows, globalization and the integration of the world economy is a complex phenomenon, which produces articulated and sometimes unclear effects, and thus not lending itself to unambiguous judgment.

One of the main objectives of this thesis is to understand whether and to what extent globalization is responsible for the increase in inequality in the Western world, relying on different kinds of measures.

Another key question that inspired the work was to understand how various countries (particularly developed countries and especially Italy) can mitigate or avoid the negative aspects produced by the global economic integration that weighs on their respective economies, as well as on their own industries. It was also described what, on the other hand, are the most appropriated policies to derive the greatest advantages and benefits in terms of growth and welfare. Finally, there will be an analysis of what we should expect in the future, the forthcoming economic outlooks.

The thesis is organized as follows:

Chapter I opens by focusing on the main issues facing countries in the contemporary economic environment, defines the concept of economic globalization and proposes a methodology for its measurement.

Chapter II, after defining the concept of inequality and illustrating its recent development, explains the evolution GDP as a way to evaluate wellbeing and the alternative indexes that exist to measure inequality in terms of happiness, human development, gender equality and poverty.

Chapter III illustrates how the gains of globalization have been unevenly distributed in the global society, analyses Italy's positioning within the dynamics that characterize world trade as well as the level of integration and the ways in which our country participates in the global value chain, highlighting its strengths and weaknesses in comparison with the major European competitors. The second part of the chapter is devoted to the evolution over the past two decades of income inequality in Italy, taking into particular account the differences in performance between the various deciles of income. Thirdly, the chapter provides an analysis of the trade and industrial policies that various states, and Italy in particular, can adopt to better manage global competitive dynamics, and an unravelling of some social policies aimed at mitigating the negative effects of globalization, especially in terms of income inequality. Finally, there will be an assessment of the impacts that the COVID pandemic had on inequality in the last two years and future projections based on official data.

CHAPTER I

GLOBALIZATION

1.1 Globalization: Definition

Globalization is mostly talked about in economic terms, but the phenomenon goes far beyond pure economics. In fact, according to one of the most widely used definitions (Treccani), globalization is "the diffusion of trends, ideas and issues on a global scale, thanks to new means of communication." Such a generic definition inexorably ends up affecting also the economic aspect, but there are still many, too many misunderstandings about the latter.

The term "globalization", in the economic environment, started being used in the 1990s, meaning, in the aftermath of the fall of the Berlin Wall. In those years, the phenomenon of globalization was seen as a great business opportunity, especially for companies in more developed countries. However, it gradually revealed its complexity as well as its negative and controversial aspects. In fact, the beginning of contemporary globalization ("reglobalization") can be traced back to China's opening to American goods, after the demise of Mao. Indeed, the Asian giant, in 1978 started a vast program of reforming and overcoming the socialist economy, which gradually liberalized the domestic economy and encouraged international trade.

However, the first phase of the globalization phenomenon goes back many centuries and basically coincides with the advent of colonialism. The first modern protectionist policies can be identified in some former British colonies, as a response by governments to limit the effects produced by globalization (e.g., the United States as their first policy measures after gaining independence.)

In the second half of the 19th century, the spread of new means and technologies of transportation as a result of the industrial revolution, and the consequent lowering of transportation rates, gave strong impetus to the worldwide integration of the market for agricultural products and manufactured goods. In addition, we can identify a new phase of European imperialism in Africa and Asia, the gradual opening of European economies (led by Britain) to international trade and the adoption of policies of free trade and lowering of

tariffs. The peak of world trade, as a percentage of output, was reached in 1914 and was not equalled for two generations.

Let us analyse the controversial aspects that can be determined at the micro and macro levels due to the hyper globalization of our days. Globalization in the economic sense is first and foremost *industrial competition and downward pressure on costs*. We can regard the *convergence of input prices at a global level* as a synonymous of economic globalization.

The resulting wage impact is heavy, especially for more developed countries and those with the highest incidence of welfare on labour costs. Globalization lowers the level of wages of certain social classes in more developed countries simply because it increases the supply of labour on a global scale and, moreover, does so faster than the increase in the supply of capital, which, instead, takes several years. The result of all this is that free trade strengthens the bargaining position of capital over that of labour. This is all the more true when it is combined with the increasing international mobility of capital and the entry into capitalism of large former socialist nations such as India and China. This allows individuals, who earn most of their income from capital, to profit, while those who produce their income using labour tend to lose. According to the "Stolper-Samuelson Theorem" (developed within the standard neoclassical theory represented by the Heckscher-Ohlin model) greater trade liberalization raises the profit from the most abundant factor of production (capital in more developed countries) and reduces that of the scarcest factor (labour, in developed economies)[1], with clear distributional and political consequences within countries. Of course, the impact of international competition on different categories of workers is different and hits hardest those most easily replaced by foreign labour. Conversely, more specialized workers, those most hardly replaceable, are not penalized at all, but rather, in some cases, are even advantaged. Therefore, the most affected classes are those who are less schooled, because little educated is also the foreign worker who can replace them (often Asian).

This represents another paradox, because in the face of an increasing volume of trade (and consequently of exports) in more developed countries, the wages of some workers decrease (instead of growing) and this is precisely due to the opening of borders, in form of mobility of capital. However, it should also be considered that there is a cost to be paid

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[1] W. F Stolper (1941), P.A. Samuelson, *Protection and Real Wages*, Review of Economic Studies.

by the emerging country that "steals" labour from the more developed one, because the cost of labour will also tend to increase in the former. The industrial capital which is more mobile, looks in developing countries for workers who are cheap, not based on their special skills. But there is more. The fact that low labour costs can lead to a low trade deficit means that there are several poor countries in the Third World that have a very balanced international trade, but whose average wages are not competitive.

When it comes to international trade, one of the controversial points concerns the effectiveness of the so-called monetary adjustment of trade imbalances. For, normally, it is thought that the country in debt must necessarily see its currency undervalued against that of the state in credit. This is only partially true. The case of the United States is significant in this regard. While often experiencing significantly negative trade values, the U.S. is very attractive as a financial centre, which realigns at the level of equilibrium of payments, its negative trade balance. Those with a positive balance tend to accumulate finance, those with a negative balance tend to need it. Think of the huge surpluses accumulated by Arab countries in recent decades, or the vast inflow of resources towards China, which devotes an enormous amount of it on investments, including military ones. Paradoxically, this precise item of spending, which for geopolitical reasons cannot but be of concern, is the one that tends to rebalance Beijing's accounts. The opposite scenario can also occur, namely that of an emerging country with a strong trade surplus but which does not attract capital, perhaps because of high local inflation or other circumstances that lead to financial instability. In this case, its currency remains rather weak despite any attempt to appreciate it. This elasticity can also cause damage, because it can allow a poor or unstable country to borrow even more than would be necessary to finance a simple trade deficit. The consequences, in the long run, can be catastrophic. But then there is also another problem; a part of these financial surpluses accumulated by emerging countries is reinvested not in Western companies located in the West, but in real estate (as when Japanese investors bought Rockefeller Centre in 1989), that is, in assets produced in previous years, and therefore unable to create employment, except for simple maintenance. The fortune of the more developed countries is that, despite the delocalization of their businesses, investments in structures of emerging countries require a huge amount of Western goods and services. However, every point of delocalized GDP is, also, one less point of growth for the developed countries.

Another problem created by globalization concerns the environment. The most developed countries are introducing increasingly stringent regulations on the environmental impact of industry and transportation. The same thing is not happening in countries such as China and India, which indeed refuse to comply with these international standards in the face of ever-increasing production (and thus consumption of resources).

Among the undesirable effects of globalization there is also a political one and that is making the so-called nation-state less relevant. This phenomenon has been caused by the emergence of multinational corporations, which established particularly in the oil industry, when Western companies had to associate/trade with the governments that owned the oilfields. The modern products are they themselves "multinationals," in the sense that they incorporate parts produced in various nations. That is why there are those who believe that globalization is, in a sense, a symptom of the decline of American economic dominance.

Further consequence of globalization is deflation or, at any rate, low inflation. Today it seems incredible that in the 1970s inflation was seen as a cancer almost impossible to fight. In fact, it demonstrated extraordinary resistance to restrictive monetary policies. The reason for the frequent failure of the latter was the fact that these policies were local, while a large part of inflation was of exogenous derivation, i.e., imported through energy prices. It was thus like treating a human body continually subject to the aggression of new bacteria and viruses. Now, however, the pressure on production costs, especially that on labour costs, prevents asset prices from growing excessively, partly because, as we saw previously, it takes purchasing power away from large segments of potential Western consumers.

However, globalization poses a risk also for the countries that benefit most from it. Countries with huge trade surpluses, actually, produce for the rest of the world.

This means that their level of invested capital, i.e., the size of their plants, is outsized compared to their real capacity to absorb local demand, with possible negative consequences in the medium and long term: if exports were to go into crisis, these countries would not be able to absorb surplus production, thus incurring in particularly violent recessions.

One thinks of what happened in Japan in the 1980s/90s, as well as what is about to happen currently in Germany, especially in the automotive sector. The latter, beyond the tariffs

imposed by the U.S. administration in the face of the enormous technological revolution of hybrid and electric cars, has decided to bask in the myth of "German quality," which markets are rapidly proving to be overrated. Adding to this, is Germany's policy of fiscal austerity, which, furthermore, also condemned other EU countries to a growth far below their potential and now undermines the very ability of the German industry to reabsorb excess production.

The result could be that of a "Japanese syndrome," namely, an excessively stagnant growth for at least a decade (in Germany but also in Europe). From such a situation, as Japan teaches, one can only get out through a long and painful process of industrial reconversion and stimulation of domestic consumption, but perhaps before that happens, a deepening of the crisis is necessary.

1.2 Globalization: Measurement

Globalization indexes are very effective tools for categorization and aggregation of a multitude of data on globalization and, even more important, on the level of globalization (or integration) achieved by countries, regions, and the World as a whole both at the aggregate level and by specific spheres of interest (e.g., politics, economy, ...). In this section we will present four globalization indices: the Index of Globalization, the KOF index, the CSGR Globalization Index and the A.T. Kearney/Foreign Policy Globalization Index.

1.2.1 Index of Globalization

There is no single measure of globalization. Among the various proposals, one that proves interesting is the one developed and presented in the report *The Index of Globalization*, a research conducted in collaboration with Whirlpool EMEA, in 2017[2]. The authors constructed an Index of Globalization based on three macro-indicators:

1) countries' exposure to global trade;

2) countries' ability to attract or generate foreign direct investment;

3) countries' degree of connectivity and their participation in global markets for knowledge.

The Index analyses 39 states among the members of the G20 and the European Union over a period of twenty-two years (1994-2015). The way it is constructed, the Index can be interpreted as a measure of distance from the frontier, where the frontier is constructed as a hypothetical country that, on each indicator used, took the lowest values observed of all the countries in the sample over the entire period considered. Real countries will score higher depending on how far they deviate from this minimum.

The trend of the index (which is reported in Figure 1) shows that, corresponding to the economic crisis, an expansionary phase of globalization was succeeded by a phase of slowdown in trade and investment. This is in part due to macroeconomic dynamics, but, to a non-trivial extent, can also be attributed to the protectionist reaction many nations had to the economic and employment difficulties they faced. Paradoxically, this reaction has exacerbated, rather than alleviated, the impacts of the crisis.

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[2] R. Bitetti, O. Darova e C. Stagnaro (2017), *Globalization Index*, Whirlpool EMEA.

Figure 1 – Index of Globalization IBL, calculated from 1994 to 2015
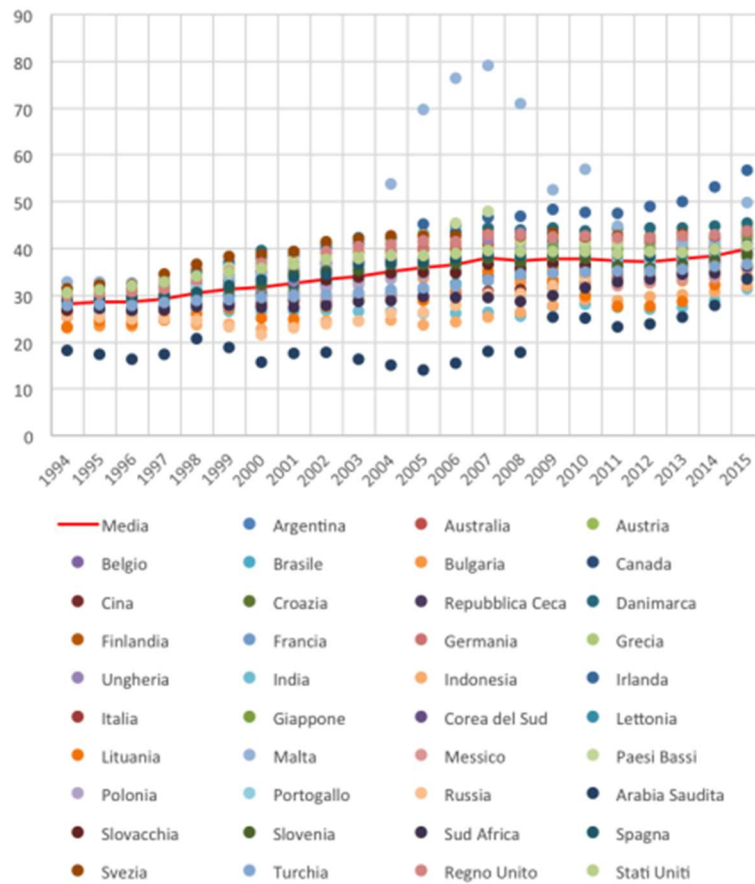
Here, it is possible to observe how the average level of globalization had a moderately increasing trend before the start of the great recession, and then became almost stationary in the years after 2008, with a slight recovery in the last two years. Unfortunately, however, the reduction in international trade relations can only aggravate the economic crisis that has affected so many nations.

The study authors then subjected the index to a series of tests to verify its accuracy. During the assessments, they found that this indicator correlated positively with GDP per capita, gender equality in access to education and environmental quality, while it correlated negatively with unemployment (particularly youth and female unemployment) and inequality. In other words, the countries with a higher rating in the Globalisation Index (i.e. those furthest from the minimum value in all three components of the Index) tend to have higher GDP per capita, greater social equity, better environmental quality, less unemployment and less inequality. In this perspective, the role of multinational firms appears central, as, not only do larger firms tend to generate more stable and better-paid

employment, but they are also a vehicle for transfer of technology, investment and, ultimately, of globalization culture.

Globalization has not only affected the wealth (and poverty) of individuals and nations, it also had consequences on the distribution of income. Thanks mainly to the transformation of a vast mass of the "poor" into an emerging "middle class," globalization reduced inequality, at least at the global level (Milanovic 2016). This result is not accidental, but it is the result of a trend that is destined to last. Based on the most widely accepted estimates of economic and demographic trends, Hellebrandt and Mauro (2015) found that inequality will continue to decline. Specifically, the Gini Index for incomes - a common measure of inequality - has fallen from a value of 69 in 2003 to 65 in 2013 (Figure 2). The trajectory is expected to continue and reach a level of 61 in 2035, thanks mainly to the development of emerging countries.

Figure 2 - Frequency diagram of global income distribution in 2003, 2013 and 2035
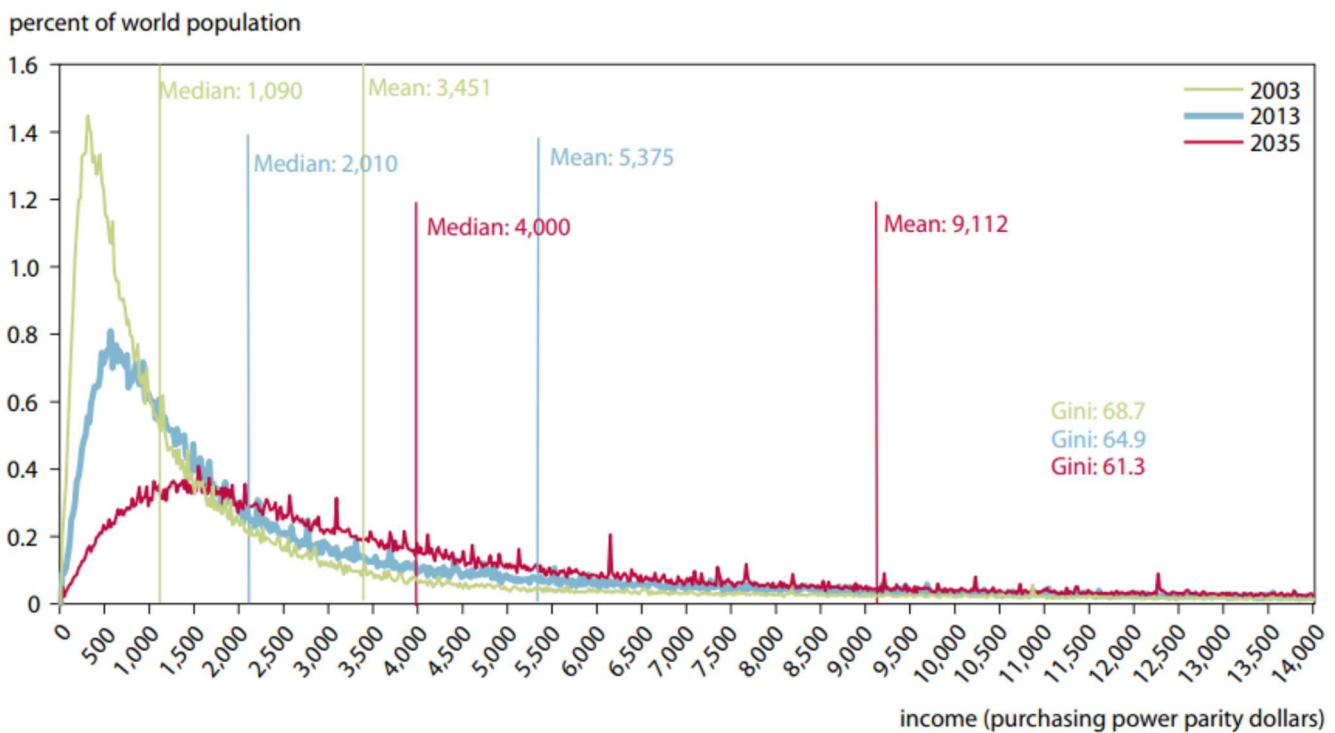
Italy is far from the top positions in the ranking, despite being in the first half, and observing a relative improvement over time. Italy can thus be considered as a country which is relatively open to globalization, nonetheless it still has considerable room for improvement. The median position that our country maintains throughout the entire period, with modest fluctuations, captures a contradiction: a country strongly devoted to

international trade, but still unable to fully exploit its potential to become a global production platform.

Figure 3 presents the results of a more specific analysis carried out on Italy, which appears to be a very globalized country if we look at the interchange (Trade), but not very globalized if we consider foreign direct investment (FDI). In terms of connectivity (Connectivity), Italy occupies an average position. This suggests that our country would have great room for improvement if it introduced reforms that would make it more attractive and generate investment, growth and employment. In fact, Italy's difficulties are largely attributable to the component of the index related to investment (while, record results have been observed in recent years with regard to trade in goods, particularly exports). These difficulties require even more serious consideration about the issue of structural reforms.

Figure 3 – Index of Globalization in Italy
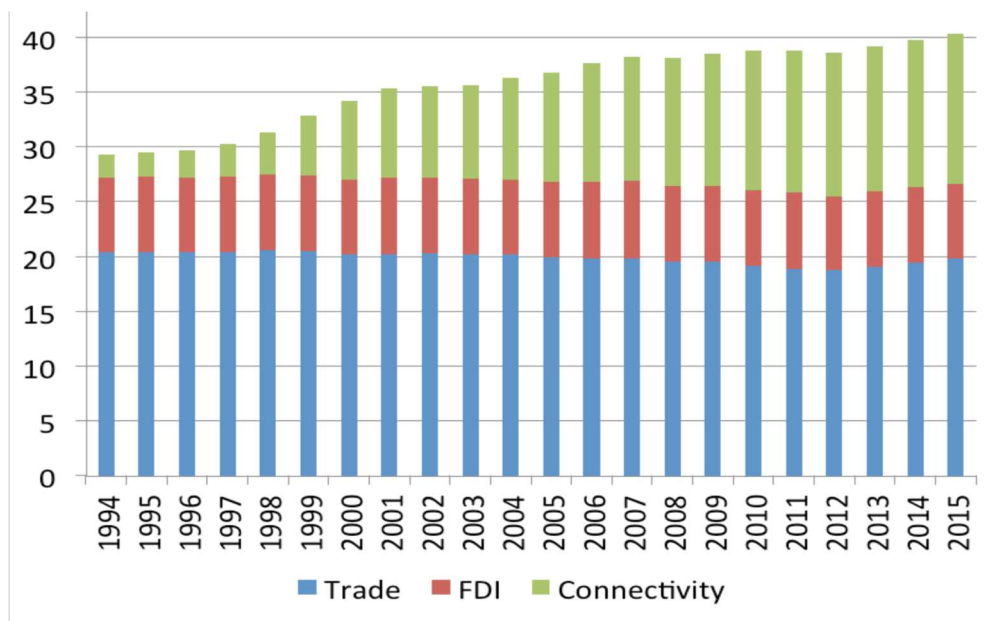
Source: R. Bitetti, O. Darova e C. Stagnaro (2017), *Globalization Index*, Whirlpool EMEA.

1.2.2 KOF Index

The KOF globalization index was developed by Prof. Dr. Axel Dreher, head of the KOF Swiss Economic Institute, starting in 2002 and then developed and updated in 2008.

The index is available on an online site[3] that provides data, graphs and maps, at an aggregate and unbundled level, of 122 countries for a period from 1970 to 2019. The KOF is extremely complex and comprehensive, analysing primarily three dimensions of globalization: economic, social and political.

Underlying the KOF index is the definition of globalization, here understood as "the process of creating new networks of connections among actors at multi-continental distances, through a series of flows that include people, information and ideas, capital and goods. Globalization is conceived as a process that erodes national boundaries, integrates national economies, cultures, and technologies, and produces relationships of mutual interdependence."[4] The KOF index, as mentioned, takes into account three macro variables, or dimensions, of globalization, namely political, economic, and social, producing a globalization index for each and then producing an overall globalization index.

For **economic globalization**, the index mainly considers two variables: trade globalization and financial globalization (de facto & de jure). These two indicators together construct the aggregate index of economic globalization. It is, therefore, an approach that not only analyses a country's propensity to be integrated into the international economy, but also the restrictions a country may place on it. International economic flows, or as they are defined in the index *de facto trade and financial globalization,* examine data on: international trade in goods and services (exports and imports of a country), portfolio investment and foreign direct investment, international debt and income payments. Restrictions, on the other hand, refer to obstructions to the international economy coming from import barriers, subsidized interest rates, tax impositions on international trade, and investment restrictions. The economic globalization index, therefore, analyses a country's general attitude towards globalization and its level of integration into the international economy. This factor, as we shall see, is of central importance to the construction of the overall globalization index.

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[3] http://globalization.kof.ethz.ch/
[4] Gygli, S., Haelg, F., Potrafke, N. et al. *The KOF Globalisation Index – revisited*. Rev Int Organ 14, 543–574 (2019). https://doi.org/10.1007/s11558-019-09344-2

The sources used to develop the two sub-variables of economic globalization come from credible institutions whose data are generally used in the political economics.

The second constituent dimension of the KOF index is **social globalization**. This dimension analyses a country's level of social integration. This dimension is structured on three variables**:** interpersonal, informational, and cultural globalization (de facto & de jure)**.** The indicator on interpersonal contacts aims at recording direct interaction between people living in different states. The indicator includes international traffic in telecommunications, the level of touristic flows to which a country, and its population, are subjected to. Foreign workers and outbound citizens are also included in the calculation, with the aim of analysing the percentage of interactions with other countries.

Data on information flows is used to estimate the potential flow of ideas, images, that might reach a country, as opposed to the interpersonal indicator which measures, as seen, the level of personal interaction of the population with foreigners. This indicator includes the number of Internet users, the percentage of televisions' owners, the trade of international newspapers. This sub-variable, in conclusion, measures the number of ideas that can access - and circulate - in a country from abroad. Finally, the last sub-variable of social globalization is represented by cultural globalization. This is the most difficult variable to analyse, and tries to grasp the level of cultural exchange - or rather, integration - present in a country, in terms of cultural beliefs and values.

Finally, the last dimension examined for the development of the KOF index is related to **political globalization**. This dimension looks at the level of political integration achieved by a country, investigating various factors that affect and influence political positions.

To understand a country's level of political globalization, the number of embassies existing in a country, the number of international organizations of which a country is a member, and the number of United Nations peacekeeping missions in which it participates, are taken into consideration. Since 1945, the number of international treaties signed by a country with one or more counterparts are also included in the analysis. This variable is mostly important for understanding the political level of integration of a country with respect to the rest of the world[5].

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[5] OECD. (2008). *MEASURING SUSTAINABLE DEVELOPMENT*. United Nations.

Summarizing, we offer in Table 1 a comprehensive overview of the variables and sources used, taken directly from the KOF globalization index document, and concerning the sources and definitions of the model. We emphasize that this index is particularly effective in illustrating the level of globalization achieved by a country.

Table 1- Overview of all variables used to construct the KOF Globalisation Indices

Indices and variables	Sources	Definitions
Economic Globalisation (KOFEcGI)		
Economic Globalisation, de facto (KOFEcGIdf)		
Trade Globalisation, de facto (KOFTrGIdf)		
Trade in goods	World Bank WDI (2017)	Sum of exports and imports in goods as share of GDP.
Trade in services	World Bank WDI (2017)	Sum of exports and imports in services as share of GDP.
Trade partner diversification	Own calculations based on IMF DOTS (2017)	Herfindahl-Hirschman concentration index for trade in goods. Constructed as the average of the sum of squares of trade partner shares in total exports and imports (inverted).
Financial Globalisation, de facto (KOFFiGIdf)		
Foreign direct investment	IMF IIP (2017) / historical data from EWN	Sum of stocks of assets and liabilities of foreign direct investments (% of GDP).
Portfolio investment	IMF IIP (2017) / historical data from EWN	Sum of stocks of assets and liabilities of international equity portfolio investments (% of GDP).
International debt	IMF IIP (2017) / historical data from EWN	Sum of inward and outward stocks of international portfolio debt securities and international bank loans and deposits (% of GDP)
International reserves	IMF IIP (2017) / historical data from EWN	Includes foreign exchange, SDR holdings and reserve position in the IMF (% of GDP)
International income payments	IMF IIP (2017) / historical data from EWN	Sum of capital and labour income to foreign nationals and from abroad (% of GDP)
Economic Globalisation, de jure (KOFEcGIdj)		
Trade Globalisation, de jure (KOFTrGIdj)		
Trade regulations	Gwartney et al. (2017)	Average of two subcomponents: Prevalence of non-tariff trade barriers and compliance costs of importing and exporting.
Trade taxes	World Bank WDI (2017)	Income from taxes on international trade as percentage of revenue (inverted).
Tariffs	Gwartney et al. (2017)	Unweighted mean of tariff rates.
Financial Globalisation, de jure (KOFFIGIdj)		
Investment restrictions	Gwartney et al. (2017)	Prevalence of foreign ownership and regulations to international capital flows.
Capital account openness 1	Chinn, Ito (2017)	Chinn-Ito index of financial openness.
Capital account openness 2	Jahan, Wang (2016)	Jahan-Wang index of openness of the capital account.
Social Globalisation (KOFSoGI)		
Social Globalisation, de facto (KOFSoGIdf)		
Interpersonal Globalisation, de facto (KOFIpGIdf)		
International voice traffic	ITU (2017)	Sum of international incoming and outgoing fixed and mobile telephone traffic in minutes per capita.
Transfers	World Bank WDI (2017)	Sum of gross inflows and outflows of goods, services, income or financial items without a quid pro quo per capita.
International tourism	World Bank WDI (2017)	Sum of arrivals and departures of international tourists as a share of population.
Migration	World Bank WDI (2017)	Number of foreign or foreign-born residents as percentage of total population.
Informational Globalisation, de facto (KOFInGIdf)		
Patent applications	Own calculations based on World Bank WDI (2017)	Patent applications by non residents filed through the Patent Cooperation Treaty procedure or with a national patent office (stocks as % of population)
International students	UNESCO (2017)	Sum of inbound and outbound number of tertiary students (% of population)
High technology exports	World Bank WDI (2017)	Exports of products with high R&D intensity as share of total merchandise exports.

Cultural Globalisation, de facto (KOFCuGIdf)		
Trade in cultural goods	UN Comtrade (2017)	Sum of exports and imports of cultural goods as defined in UNESCO (2009).
Trademark applications	World Bank WDI (2017)	Applications to register a trademark with a national or regional Intellectual Property (IP) office by non residents in percent of all applications.
Trade in personal services	IMF BOPS (2017)	Sum of exports and imports in personal services.
McDonald's restaurant	Various sources.	Number of McDonald's restaurants (per capita).
IKEA stores	IKEA	Number of IKEA stores (per capita)
Social Globalisation, de jure (KOFSoGIdj)		
Interpersonal Globalisation, de jure (KOFIpGIdj)		
Telephone subscriptions	World Bank WDI (2017)	Fixed telephone and mobile subscriptions as percentage of population.
Freedom to visit	Gwartney et al. (2017)	Percentage of countries for which a country requires a visa from foreign visitors.
International airports	ICAO (2017)	Number of airports that offers at least one international flight connection (per capita).
Informational Globalisation, de jure (KOFInGIdj)		
Television	World Bank WDI (2017)	Share of households with a television set.
Internet user	World Bank WDI (2017)	Individuals using the internet (as % of population). Internet users are individuals who have used the internet in the last three months.
Press freedom	Gwartney et al. (2017)	Numerical scores evaluating the legal environment for the media, political pressure that influence reporting and economic factor that affect access to news and information.
Internet bandwidth	ITU (2017)	Total used capacity of international internet bandwidth in bits per second per capita.
Cultural Globalisation, de jure (KOFCuGIdj)		
Gender parity	UNESCO (2017)	Ratio of girls to boys enrolled in primary education level in public and private schools.
Expenditure on education	UNESCO (2017)	General government expenditure on education (current, capital and transfers) per capita.
Civil freedom	Gwartney et al. (2017)	Quantification of aspects on freedom of expression and belief, associational and organizational rights, rule of law and personal autonomy and individual rights.
Political Globalisation (KOFPoGI)		
Political Globalisation, de facto (KOFPoGIdf)		
Embassies	Europe World Yearbook (various years)	Absolute number of embassies in a country.
UN peace keeping missions	Department of Peacekeeping Operations, UN	Personnel contributed to U.N. Security Council Missions per capita.
International NGOs	Union of International Association (various	Number of international oriented nongovernmental organisations (NGO) with members in that country or territory.
Political Globalisation, de jure (KOFPoGIdj)		
International organisations	CIA World Factbook (various years).	Number of international inter-governmental organisations in which a country is member.
International treaties	United Nations Treaty Collection.	International treaties signed between two or more states and ratified by the highest legislative body of each country since 1945.
Number of partners in investment treaties	UNCTAD (2017)	Number of distinct treaty partners of a country with bilateral investment treaties.

The complexity of the model, the variety and effectiveness of the variables used, in addition to the broad spectrum of countries analysed and the time dimensions considered (1970-2012) make the KOF globalization index effective in expressing levels of globalization among countries. Moreover, unlike other indexes of globalization, which focus overwhelmingly on the economic dimension, this index also appropriately includes the

socio-cultural and political dimensions of globalization. The two most "original" variables probably, concern the number of MacDonalds and Ikeas taken into account in the de facto cultural globalization.

It should be remembered, however, in this regard, that one of the most famous essays on cultural globalization is the work of George Ritzer by which he takes as an example the impact of MacDonald as an innovative consumer factor having a global impact both at the economic and cultural level[6]. Therefore, it can be indeed considered an appropriate variable for the analysis of cultural globalization.

Based on the variables presented here, KOF, firstly, examines the indices of globalization taken under consideration, and then develops a general index expressing a country's overall level of globalization (on a scale of 0-100, where 0 is the minimum level of globalization and 100 the maximum attainable level).

The methodology used by the KOF globalization index involves a weighted approach, which weighs differently the variables considered in the aggregate composition of the dimensional indices and the overall index.

As it can be seen from Table 2, both for a specific dimension (economic, cultural, political) and for the composition of the overall index, different weights are given. In particular, for the economic composition, a balance is maintained between the two macro variables trade globalization de facto and trade globalization de jure, both estimated at 50 percent of the economic globalization index; within them we can find different weights in relation to the relative importance of the constituent variables. The social globalization dimension has three macro-variables, again equivalent (33.3%) with then different subdivisions of weights for each variable.

Finally, in the political dimension there is substantial equality of weight among the various variables that form the political globalization. The only variables with relatively higher weights are those relating to membership in international organizations and international NGOs.

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[6] Ritzer, George. The Mcdonaldization Thesis. Explorations and Extension. London-Thousand-Oaks-New Dehli, Saqge publications, 1998.

Ultimately, in the development of the overall globalization index, equal weights are given to the economic, social, political dimension. Below we can observe the full methodology of the calculation used by the KOF globalization index.

Table 2 - Structure of the KOF Globalisation Index

Globalisation Index, de facto	Weights	Globalisation Index, de jure	Weights
Economic Globalisation, de facto	*33.3*	*Economic Globalisation, de jure*	*33.3*
Trade Globalisation, de facto	*50.0*	*Trade Globalisation, de jure*	*50.0*
Trade in goods	38.8	Trade regulations	26.8
Trade in services	44.7	Trade taxes	24.4
Trade partner diversity	16.5	Tariffs	25.6
		Trade agreements	23.2
Financial Globalisation, de facto	*50.0*	*Financial Globalisation, de jure*	*50.0*
Foreign direct investment	26.7	Investment restrictions	33.3
Portfolio investment	16.5	Capital account openness	38.5
International debt	27.6	International Investment Agreements	28.2
International reserves	2.1		
International income payments	27.1		
Social Globalisation, de facto	*33.3*	*Social Globalisation, de jure*	*33.3*
Interpersonal Globalisation, de facto	*33.3*	*Interpersonal Globalisation, de jure*	*33.3*
International voice traffic	20.8	Telephone subscriptions	39.9
Transfers	21.9	Freedom to visit	32.7
International tourism	21.0	International airports	27.4
International students	19.1		
Migration	17.2		
Informational Globalisation, de facto	*33.3*	*Informational Globalisation, de jure*	*33.3*
Used internet bandwidth	37.2	Television access	36.8
International patents	28.3	Internet access	42.6
High technology exports	34.5	Press freedom	20.6
Cultural Globalisation, de facto	*33.3*	*Cultural Globalisation, de jure*	*33.3*
Trade in cultural goods	28.1	Gender parity	24.7
Trade in personal services	24.6	Human capital	41.4
International trademarks	9.7	Civil liberties	33.9
McDonald's restaurant	21.6		
IKEA stores	16.0		
Political Globalisation, de facto	*33.3*	*Political Globalisation, de jure*	*33.3*
Embassies	36.5	International organisations	36.2
UN peace keeping missions	25.7	International treaties	33.4
International NGOs	37.8	Treaty partner diversity	30.4

Source: Gygli, S., Haelg, F., Potrafke, N. et al. *The KOF Globalisation Index – revisited*. Rev Int Organ 14, 543–574 (2019). https://doi.org/10.1007/s11558-019-09344-2

The globalization index is therefore calculated based on this model, along with the specific indexes of economic, social, and political globalization for more than 200 countries. The index for de facto trade globalisation, for example, is based on the variables trade in goods (in % of GDP), trade in services (in % of GDP) and trade partner diversity. De jure trade globalisation, on the other hand, is calculated using variables for the prevalence of trade regulations, trade tax revenues, average tariff rates and the number of trade agreements concluded[7].

In developing the ranking, all three dimensions are included, ordering countries from those with the highest score, down to those with an inferior score. It all results, then, in comparative tables of the level of globalization achieved, at the aggregate and at the disaggregated level, by over 200 countries using the same time period.

Offered below is a clipping of the 2019 KOF Globalization Index, divided among overall, de facto and de jure GI.

Table 3 – KOF Globalization Index

2021 KOF Globalisation Index
Rankings for the year 2019

Rank	Country	Globalisation Index, overall		Rank	Country	Globalisation Index, de facto		Rank	Country	Globalisation Index, de jure
1	Netherlands	90.91		1	Switzerland	90.38		1	Sweden	92.82
2	Switzerland	90.45		2	Netherlands	90.12		2	Luxembourg	92.80
3	Belgium	90.33		3	Belgium	89.68		3	United Kingdo	92.25
4	Sweden	89.44		4	Ireland	87.58		4	Finland	91.74
5	United Kingdo	89.31		5	Austria	87.19		5	Netherlands	91.69
6	Germany	88.73		6	Germany	86.57		6	Belgium	90.97
7	Austria	88.61		7	United Kingdc	86.37		7	Germany	90.89
8	Denmark	87.80		8	Singapore	86.26		8	France	90.61
9	Finland	87.68		9	Sweden	86.06		9	Spain	90.57
10	France	87.63		10	Denmark	86.03		10	Switzerland	90.52
11	Spain	85.87		11	Malaysia	85.08		11	Austria	90.03
12	Ireland	85.75		12	France	84.66		12	Denmark	89.58
13	Norway	85.40		13	Norway	84.24		13	Czech Republi	88.79
14	Portugal	85.22		14	Finland	83.52		14	Portugal	88.62
15	Czech Republi	84.85		15	Hungary	82.49		15	Estonia	88.29

Source: Gygli, S., Haelg, F., Potrafke, N. *et al.* The KOF Globalisation Index – revisited. *Rev Int Organ* **14**, 543–574 (2019). https://doi.org/10.1007/s11558-019-09344-2

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[7] Haelg, Florian. "The KOF Globalisation Index – *A Multidimensional Approach to Globalisation* "Jahrbücher für Nationalökonomie und Statistik, vol. 240, no. 5, 2020, pp. 691-696.

Secondly, we find the GI for the top 15 more globalized countries for the year 2019 and we can observe the contribution of both the de facto and de jure index to the overall KOFGI.
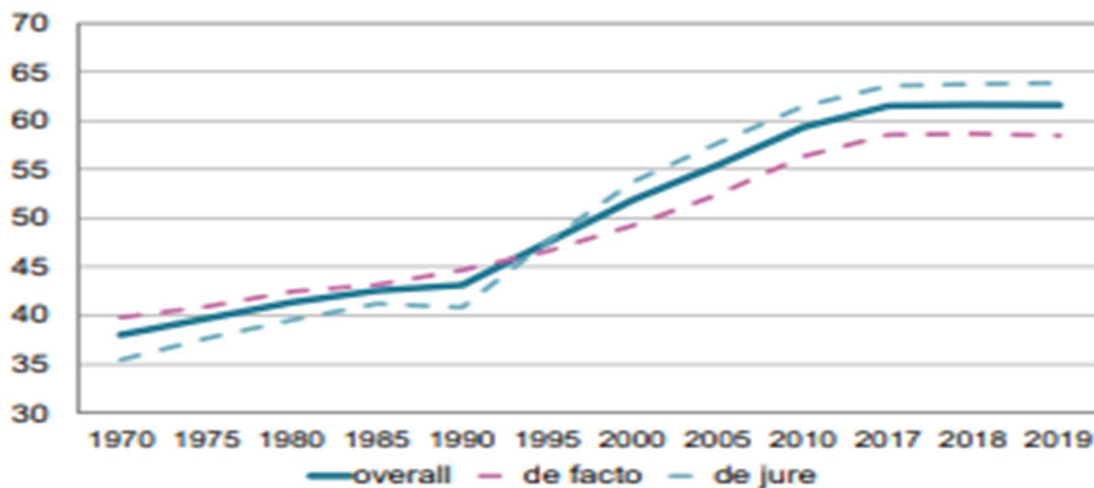
Figure 4 - KOF Globalisation Index of the Top 15 Countries.
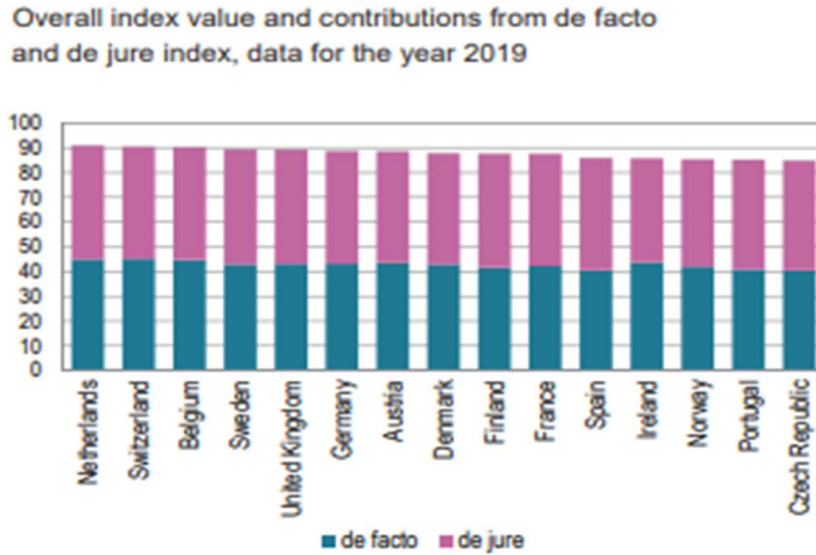
Overall index value and contributions from de facto and de jure index, data for the year 2019

Figure 5 illustrates the world average of the overall KOF index from 1970 to 2019. The picture is clear, in almost 50 years the average grew from around 40% to more than 60%.

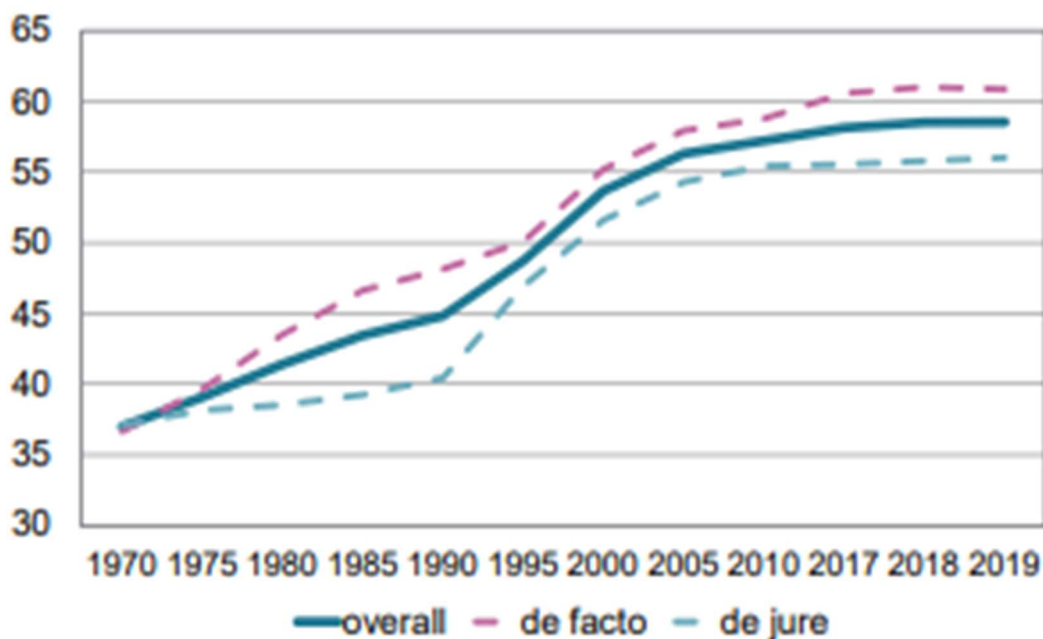Figure 5 - KOF Globalisation Index: World Average (1970–2019).

To conclude, considering the structure, composition, and methodology of the KOF Index, we can observe that we are in the presence of a deep globalization process which takes into consideration all components of human actions, and that this development had a large boost since the end of the 1990s. If we observe Figure 5, in correspondence with the years 1991-1992, we can notice how the curve grew considerably – at the global level.

If from 1970 to 1990, the level of overall globalization was calculated to be around 35-43% - a growth of around 10 percentage points, since 1990 we recorded such a progress in only ten more years: in fact, in 2000 we registered a level of overall globalization above 50 points. From 2000 to 2010 there was an additional progress of 10 percentage points.
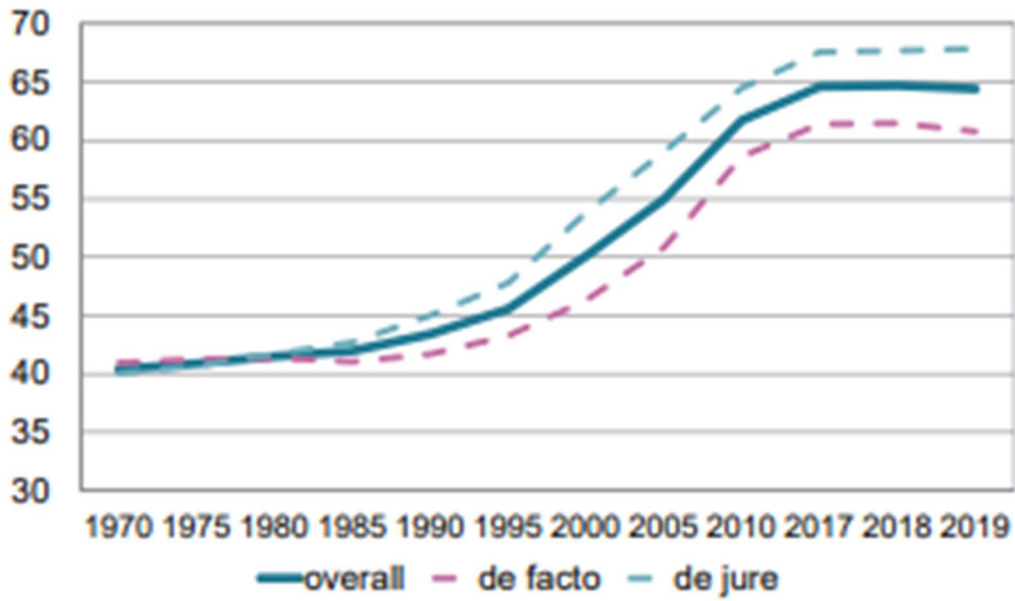
Analogous are the results calculated for the different dimensions of globalization. In the next page the specific figures for economic, social, and political globalization can be found. One can, specifically, observe the change of pace registered around 1990 and 1991, that is known as the "genesis" of the modern process of globalization.

Figure 6 – KOF Economic Globalization: World Average (1970-2019).
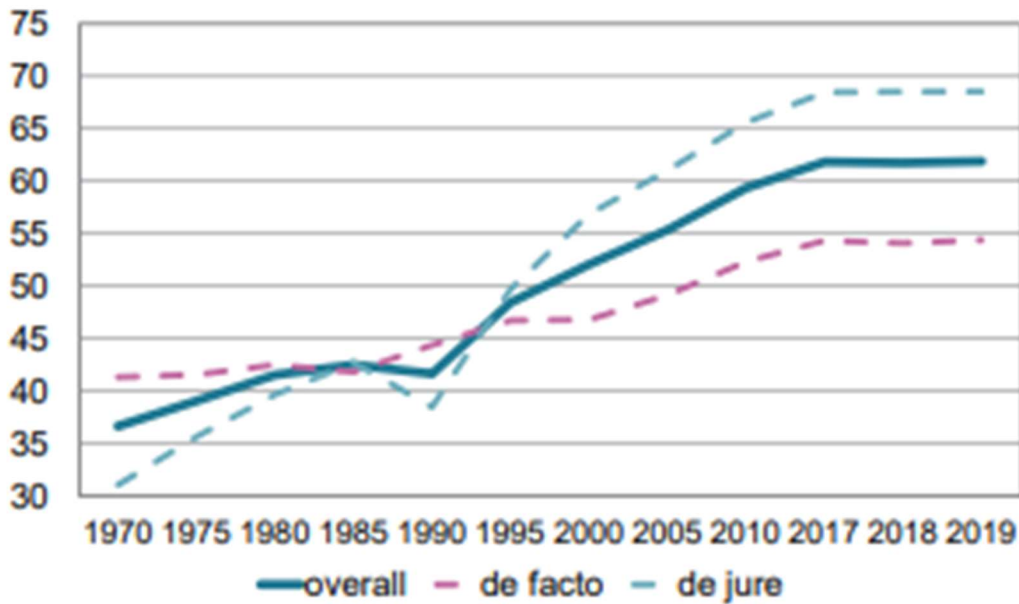

Source: Gygli, S., Haelg, F., Potrafke, N. et al. The KOF Globalisation Index – revisited. Rev Int Organ 14, 543–574 (2019). https://doi.org/10.1007/s11558-019-09344-2

Figure 7 – KOF Social **Globalization**: World Average (1970-2019).

Figure 8 – KOF Political Globalization: World Average (1970-2019).

1.2.3. CSGR Globalization Index[8]

The CSGR *(Centre for the Study of Globalization and Regionalization)* globalization index is a measure of globalization developed by the University of Warwick, very similar, to the KOF Index. The CSGR Index, in fact, analogously to KOF, is structured into three large sections: economic, social, and political. The index offers both an overall measure and different sub-indexes related to the economic, social, and political globalization. The time frame analysed starts from 1982 to 2004, for a relevant number of countries, more than 200 (even if some indexes are not registered due to missing data). Furthermore, different aggregations of globalization levels are present based on geographical areas. This index, too, allows for comparative analyses between countries and historical analyses of the globalisation levels detected.

Economic globalisation is constructed on the basis of four variables, which are respectively foreign trade, foreign direct investment, portfolio investment and income (employee compensation paid to non-resident workers, investment income from overseas assets owned by domestic residents, and employee compensation provided to resident workers who work abroad, all expressed as a percentage of GDP.)

Social globalisation consists of nine variables, divided into two macro-variables: people and ideas. The variables inherent to people are: the stock of foreign population as a percentage of the country's total population, the flow of foreign workers as a percentage of the total population, the payment remittances of foreign workers as a percentage of GDP, the number of tourists as a percentage of the population.

The variables concerning ideas are outgoing international calls (in minutes), internet users as a percentage of the population, the number of films imported and exported, the value of newspapers and other print media imported and exported, the number of international letters sent and received per capita.

Finally, **political globalisation** consists of three variables: the number of embassies in the country, the number of UN peacekeeping missions in which the country participates and the number of international organisations of which it is a member. Table 4 below shows

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[8] Ben Lockwood, Michela Redoano, (2005), *The CSGR Globalisation Index: An Introductory Guide*, Centre for the Study of Globalisation and Regionalisation Working Paper 155/04.

the sources from which the general index and the specific globalisation indices are constructed.

As it can be seen, there is a strong similarity between the KOF globalisation index and this of Warwick University, at least from the point of view of the conceptual construction, the variables used and the sources from which the data is obtained. The construction of the indices, in this case, however, is more difficult, and in the author's opinion less comprehensible and immediate. Moreover, this index does not allow to have aggregated and disaggregated data in an immediate manner, and does not offer other types of tools such as maps and graphs for the different levels of globalisation.

Table 4- Data sources.

Sub-Index	Variables	Source
Economic Globalisation	Trade	World Bank- World Development Indicators - Latest issue
	FDI	World Bank- World Development Indicators - Latest issue
	Portfolio Investment	IMF- International Financial Statistics- Latest issue
	Income	World Bank- World Development Indicators- Latest issue
Social Globalisation	People	
	Foreign Stock	World Bank- World Development Indicators- Latest issue
	Foreign Flow	World Bank- World Development Indicators- Latest issue, and Mitchell, B. R. 1998. International Historical Statistics. New York: Stockbridge Press and London: Macmillan.
	Worker Remittances	World Bank- World Development Indicators- Latest issue
	Tourists	World Bank- World Development Indicators- Latest issue
	Ideas	
	Phone calls	International Telecommunication Union (ITU) World Telecommunication Indicators Database (www.itu.int)
	Internet users	International Telecommunication Union (ITU) World Telecommunication Indicators Database (www.itu.int)
	Films	UNESCO -1999 Statistical Yearbook (www.unesco.org)
	Books and newspapers	UNESCO-1999 Statistical Yearbook (www.unesco.org)
	Mail	Universal Postal Union (www.upu.int)
Political Globalisation	Embassies	Europa World Yearbook- various years. (Latest issue available on line for subscribers at (http://www.europaworld.com.))
	UN Missions	CIA- World Factbooks, various years. (Latest issue available on line at (http://www.cia.gov/cia/publications/factbook/)) United Nations Website (www.un.org)
	Organisations	CIA- World Factbooks, various years. (Latest issue available on line at (http://www.cia.gov/cia/publications/factbook/))

Source: https://warwick.ac.uk/fac/soc/pais/research/csgr/index/guide2.pdf

The methodology used in the estimation of globalisation levels is similar to that of the KOF index: variables are identified, data, both qualitative and quantitative, is detected and used to construct quantitative measures, which are normalised within established parameters and subjectively weighted by the model. Finally, the score resulting from this process is used to determine country rankings. Importantly, the overall globalisation index is the unweighted average of the scores of the three globalisation indices (economic, social, political). The weights assigned to the variables are expressed in the table below.

Table 5 – Weights.

Sub-Index	variables	weight
Economic Globalisation	Trade	0.418
	Fdi	0.092
	Portfolio	0.220
	Income	0.270
Social Globalisation	People	0.331
	Foreign Stock	0.266
	Foreign Flow	0.629
	Worker Remittances	0.079
	Tourists	0.026
	Ideas	0.669
	Phone calls	0.004
	Internet users	0.303
	Films	0.061
	Books and newspapers	0.577
	Mail	0.054
Political Globalisation	Embassies	0.378
	UN Peace Missions	0.357
	International Organisations	0.266

Source: https://warwick.ac.uk/fac/soc/pais/research/csgr/index/guide2.pdf

The results are then used to create comparative rankings of the overall globalisation levels and of economic, social, and political globalisation. The rankings are done on a scale and are shown in Figure 9. Table 6 shows the top 15 overall globalised countries on average over three decades.
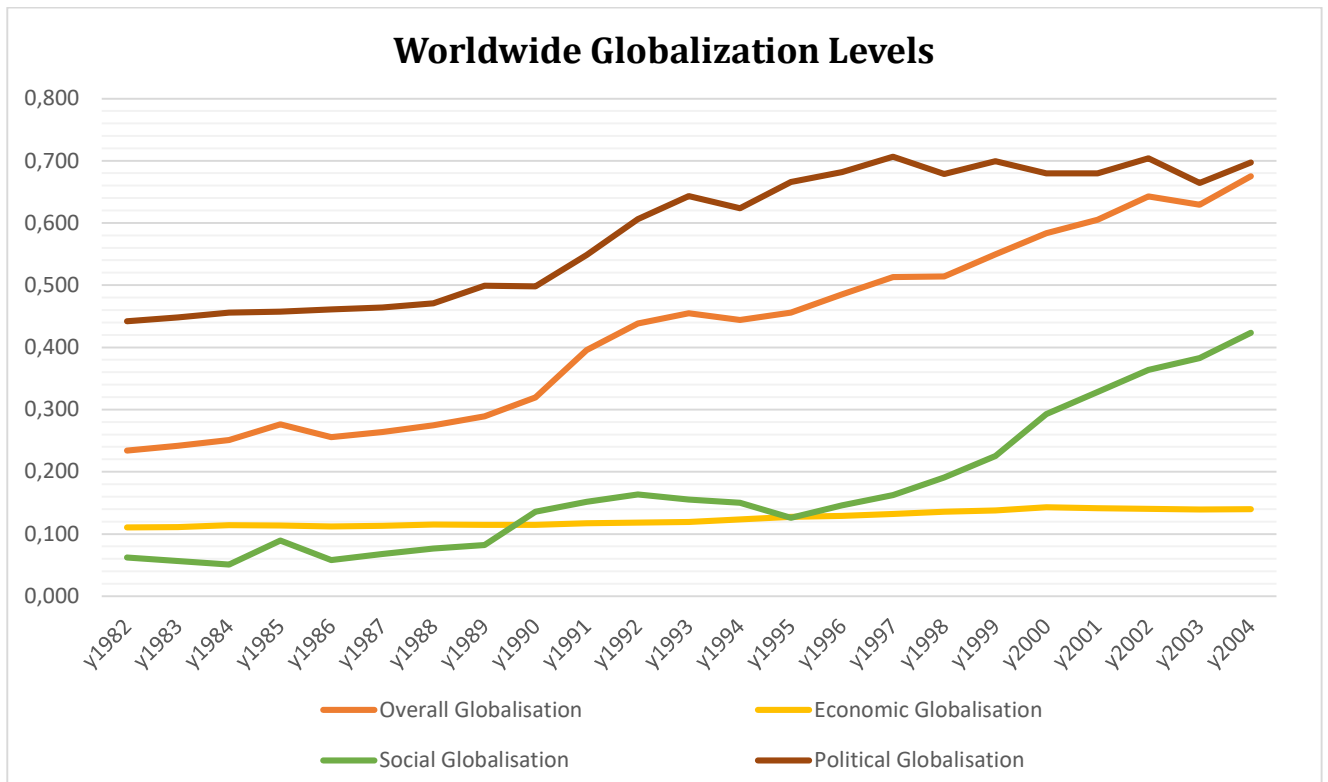
Figure 9 – World Globalisation Index (score)

Worldwide Globalization Levels

Legend:
— Overall Globalisation
— Economic Globalisation
— Social Globalisation
— Political Globalisation

Table 6 – Top 15 Overall Globalised Countries

Rank	80'	90'	2000'
1	Belgium	Belgium	Belgium
2	Switzerland	Canada	Singapore
3	Singapore	Switzerland	Canada
4	Canada	Singapore	Austria
5	France	USA	United Kingdom
6	United Kingdom	France	USA
7	Netherland	United Kingdom	Switzerland
8	USA	Sweden	Sweden
9	Sweden	Ireland	Ireland
10	Denmark	Russia	France
11	Italy	Denmark	Denmark
12	Finland	Germany	Germany
13	Ireland	Netherland	Italy
14	Australia	Finland	Finland
15	New Zealand	Italy	Netherland

If we look at the top 15 countries for the year 2004 the results are pretty different.

Table 7 - Top 15 Globalised Countries in 2004

Ranking	Overall Globalisation	Economic Globalisation	Social Globalisation	Political Globalisation
1	Singapore	Luxembourg	Bermuda	France
2	Belgium	Netherlands Antilles	Singapore	United States
3	Canada	Singapore	Hong Kong, China	Russian Federation
4	United Kingdom	Hong Kong, China	Switzerland	China
5	United States	Ireland	New Zealand	United Kingdom
6	Austria	Malaysia	Austria	Canada
7	Sweden	Belgium	Canada	Belgium
8	Switzerland	Guyana	Netherlands Antilles	Egypt, Arab Rep.
9	France	Swaziland	Sweden	Germany
10	Denmark	Thailand	Denmark	Italy
11	Ireland	Angola	United Kingdom	Sweden
12	Germany	Bahrain	Malta	Austria
13	Italy	Hungary	Iceland	India
14	Malaysia	Malta	Belgium	Poland
15	Finland	Philippines	Australia	Malaysia

Source: https://warwick.ac.uk/fac/soc/pais/research/csgr/index/top20/2001

Table 8 allows for a smaller view of globalization based on world regions. North America results to be the most globalized overall, while West Europe appears to be the best from an economic point of view. Africa, instead, is placed in the last rankings of all categories.

Table 8 - Region Ranking in 2004

Ranking	Overall Globalisation	Economic Globalisation	Social Globalisation
1	North America	West Europe	North America
2	West Europe	South Asia	West Europe
3	East Asia and Pacific	East Asia and Pacific	East Asia and Pacific
4	South Asia	North America	Sub Sahara Africa
5	East Europe and Central Asia	East Europe and Central Asia	Middle East and North Africa
6	Middle East and North Africa	Sub Sahara Africa	East Europe and Central Asia
7	Latin America and Carribbean	Latin America and Carribbean	Latin America and Carribbean
8	Sub Sahara Africa	Middle East and North Africa	South Asia

Source: https://warwick.ac.uk/fac/soc/pais/research/csgr/index/top20/2001

1.2.4 A.T. Kearney/Foreign Policy Globalization Index

Another famous index on globalisation is the one developed by the consultancy firm A.T. Kearney and the academic journal Foreign Policy. The index examines, in its 2007 edition, 62 countries, which together account for 92% of the world's GDP and 88% of the planet's population. The index examines four major dimensions of globalisation, each composed of different variables: economic integration, personal contacts, technology, and political engagement.

The first dimension is economic integration. Four variables are used for the analysis of this dimension: foreign trade, portfolio investment, foreign direct investment flows and return on investment. This dimension thus investigates the magnitude of international integration achieved by a country. For the construction of this dimension, and for the sources, please refer to the table below.

	Foreign Direct Investment	*Trade*	*Portfolio Investment*	*Investment Income*
Sources & Construction	FDI inflows, outflows, total flows, and total flows as a percentage of GDP. The data is taken from UNCTAD databases.	Takes into consideration imports of goods, exports of goods, imports of services. exports of services, total exports, total imports, total exports as a % of GDP and total imports as a % of GDP. The data is taken from the IFS (International Finance Statistics).	No source given	No source given

The second dimension relates to personal contacts. It is a dimension concerning the mainly cultural and social sphere of globalisation. The variables considered for the construction of this dimension are mainly three: the telephone traffic, PC users and money transfers. As far as telephone traffic is concerned, incoming, outgoing, and total traffic is considered, both on an absolute level and in relation to the total population of the country. The data are developed from the ITU World Telecommunications Indicators. The data on PCs are also taken from the ITU World Telecommunications Indicators and refer to the total number of users in an absolute sense and as a percentage of the population. Finally, remittances and personal transfers, which refer to outgoing monetary transfers made by foreigners residing in the country and incoming transfers made by compatriots abroad, both taken in absolute terms and as a percentage of GDP, are developed from the IMF Balance of Payment Statistics (BOPS) data.

The third-dimension concerns technology. In the construction of this sub-index, three globalisation variables are used: internet users, internet hosts and secure servers. The data on internet users and internet hosts are taken from the ITU World Telecommunications Indicators, while data on the number of secure servers comes from the Netcraft Secure Server Survey.

Finally, the fourth-dimension concerns what is referred to as political engagement (or participation). This dimension is constructed on the basis of four indicators: the number of

international memberships the country has, the number of peacekeeping missions it participates in, the number of signed treaties and governmental transfers. The data is taken from the Central Intelligence Agency Factbook, the United Nations Peacekeeping Department, data from open sources and BOPS, respectively.

In structuring the index as can be seen in Table 7, countries are ranked for each variable, assigning positions according to the magnitude of the data found. A country therefore reaches 1st, 2nd 3rd position and so on. This is done for each variable that makes up a dimension of globalisation. With these results, then an aggregate ranking of the various countries' positions is calculated for each dimension of globalisation. Ultimately, based on the rankings developed from these four dimensions, the overall globalisation ranking for the year in question is derived.

We can see here that Italy only ranks 25th in the global scale.

Table 9 – 2004 GI Rankings

2004 GI Rankings		Change from 2003	Economic	Personal	Technological	Political	Economic Integration				Personal Contact			Technology			Political Engagement				2003 GI Rankings
							Trade	Portfolio	FDI	Investment Income	Telephone	Travel	Remittances and Personal Transfers	Internet Users	Internet Hosts	Secure Servers	International Organizations	U.N. Peacekeeping	Treaties	Government Transfers	
1	Ireland	0	1	2	14	11	3	1	1	1	3	5	4	24	16	7	23	5	9	26	1
2	Singapore	2	2	3	10	40	1	6	7	2	1	6	48	3	10	9	59	21	44	38	4
3	Switzerland	-1	9	1	7	33	18	8	18	3	2	2	2	19	11	5	13	60	44	10	2
4	Netherlands	1	3	11	8	14	9	2	5	6	6	16	43	4	3	15	12	17	44	8	5
5	Finland	5	7	15	4	12	28	4	6	12	14	11	39	6	2	8	11	14	30	16	10
6	Canada	1	18	5	3	20	25	30	12	20	4	20	61	9	9	3	4	23	30	31	7
7	United States	4	56	35	1	28	61	26	39	38	19	33	56	5	1	1	3	25	60	44	11
8	New Zealand	8	35	10	2	3	35	21	47	17	5	23	57	8	6	2	32	1	9	20	16
9	Austria	-1	13	6	13	1	13	3	25	11	11	3	28	14	15	13	9	3	1	4	8
10	Denmark	-4	12	8	6	10	19	19	13	9	7	19	16	10	4	10	8	10	30	9	6
11	Sweden	-8	10	12	9	8	21	23	9	8	9	13	35	1	8	11	4	13	9	14	3
12	United Kingdom	-3	20	13	11	7	46	18	35	5	10	17	41	15	14	6	2	12	9	19	9
13	Australia	8	26	28	5	13	52	13	16	24	12	30	52	12	5	4	32	4	30	37	21
14	Czech Republic	1	6	4	24	29	5	22	4	25	25	1	17	25	20	25	26	40	9	27	15
15	France	-3	16	19	21	2	47	11	10	16	18	12	34	22	19	19	1	6	9	11	12
16	Portugal	-2	15	17	22	4	31	7	14	13	21	15	18	18	24	23	14	2	9	6	14
17	Norway	-4	23	27	12	21	29	5	29	18	22	24	29	7	13	12	18	18	9	22	13
18	Germany	-1	24	23	16	5	30	14	28	14	13	21	45	13	17	14	4	9	9	13	17
19	Slovenia	6	11	18	18	23	10	53	8	45	23	10	21	16	22	18	55	22	1	24	25
20	Malaysia	-2	8	14	26	46	2	42	17	15	28	7	12	20	36	35	32	43	30	45	18
21	Slovak Republic	6	5	38	31	18	4	36	2	47	30	32	26	30	25	34	37	8	1	54	27
22	Israel	-3	31	7	19	44	23	34	30	26	8	27	5	21	18	17	61	24	61	3	19
23	Croatia	-1	14	9	28	37	11	20	11	31	15	8	10	28	34	22	53	47	1	21	22
24	Spain	-4	19	22	25	16	41	10	15	21	17	18	38	27	27	20	15	19	9	17	20
25	Italy	-1	34	25	23	6	49	29	31	19	16	22	40	23	30	24	4	15	9	12	24
26	Hungary	-3	21	16	29	26	6	33	40	30	29	4	37	29	21	31	23	36	1	34	23

Source: https://foreignpolicy.com/2009/10/29/measuring-globalization-rankings/

1.3 Final Considerations

As it can be seen from the proposed analysis, there is a very strong similarity between the four indices taken into consideration, which constitute, in any case, the four main globalisation indexes to date, recognised, in terms of quality and completeness, even by the European Statistics Department (EUROSTAT). In particular, we have seen how all indices recognise that globalisation is a complex process, affecting all spheres of human life. What is most important is the fact that these indices all identify the relevance and existence of globalisation, with strong economic, social, and political components. Too often, in fact, attention is given to economic globalisation, which certainly is one of the fundamental and most powerful components of globalisation, but it is definitely not the only component in a process that, again, is extremely complex and 'complete'.

The four measures therefore use a broadly similar structure, variables, and sources. The differences between these four indices are minimal, and mainly concern the methodological aspect of structuring the index, the calculation and weighting of the variables used. They also differ in the final result: the Index of Globalisation and the A.T.Kearney/Foreign policy only propose a ranking, for the year in question, of the various positions reached by a country in the various dimensions and overall globalisation; the KOF and CSGR index offer, in addition to the ranking, the possibility of having time series for very long time periods, they also investigate a larger number of countries than the other indexes, and, more importantly, allow scores to be displayed by single variable, dimension and for globalisation in general.

Although questionable, there is no doubt that the KOF index is extremely more indicative than the others, in absolute and comparative terms, to understand the level of globalisation of - or among - different countries, because of the quality of the variables, sources and calculation procedure used.

1.4 Conclusion

In conclusion, this Chapter sought to offer a framework for defining globalisation, through a study of the academic approaches that provided the background and an empirical analysis of the actual existence of the process of globalisation in all areas of interest.

It is therefore possible to state that globalisation exists and is a relevant process of transformation of social reality that entails increasing integration at all levels and in all dimensions of societies.

Once globalisation has been defined, and its relevance verified, especially for the field of social sciences, a methodology was sought so that it would make it possible to "quantify" the levels of globalisation achieved by various countries.

Globalisation indices, although having limitations, represent, at the moment, the most useful tool to be able to understand at an indicative level 'how much' a country is globalised, and to make comparisons between different levels of globalisation by country as well as by sector (economic, political, socio-cultural globalisation) and time frame.

Obviously, it would be appropriate to develop globalisation indices in greater detail which would allow more sophisticated analyses to be developed: in general, we can state that ad hoc globalisation indices should be developed in virtue of a particular need.

CHAPTER II
INEQUALITY

2.1 Inequality: Definition

The concept of economic inequality can be expressed as the disparity between a certain percentage of the population and the percentage of primary resources, e.g., income, possessed by that population. Inequality grows as this disparity increases: if only one individual possesses the total amount of available resources, inequality is at its highest; conversely, if all people possess the same percentage of available resources, inequality will be at its lowest.

When speaking of inequality, reference is always made to the distribution of primary resources within a population: within this frame of reference, one can consider inequalities on a global, international, intra-national level. In the first case, we consider the distribution of global resources among all the inhabitants of the world; in the second, the resources are always global, but the reference population is identified by different states; finally, in the third, we restrict the analysis to the resources and inhabitants of a specific country.

Economic inequality refers, therefore, to inequality in the distribution of income among members of a society and is strongly connected to the concept of equality of opportunity, which means the absence of impediments to economic, political, and social participation.

One of the main problems in defining the concept of inequality stems from its inherent subjectivity, as it can be interpreted differently by various scholars, especially with regard to the level of acceptability.

Many factors contribute to increasing inequality within a society and the degree of correlation between them is very strong. The main ones are inequality in compensation and wages, concentration of wealth, labour market, education, and gender.

The term inequality refers to the difference in well-being resulting mainly from inequalities in income levels, consumption, access to health care, education, and life expectancy.

One of the most important studies on income inequality was conducted by the French economist Thomas Piketty in his book 'Capital in the 21st century'[9], in which he analyses the main factors determining economic inequality. One of the main causes of inequality, according to Piketty, stems from the way in which economic and social justice is perceived and interpreted by the main political, social, and economic actors and the power they have and the collective choices that result; the interaction between these actors and the decisions they make determines a certain level of inequality.

Wealth distribution is a dynamic process, and from this process it is possible to identify mechanisms that drive convergence or divergence of wealth per adult within and between individual countries.

The forces of convergence are those that reduce inequality, the main ones being the diffusion of knowledge and investment in training and skills; the diffusion of knowledge leads to an overall growth in productivity and a reduction in inequality within and between countries, but this diffusion depends on educational policies, access to training and the acquisition of appropriate skills, and associated institutions.

The main forces of divergence identified by Piketty are: the ability of higher income earners to distance their wages from those of the rest of the population, and the fact that the rate of return on capital is higher than the rate of GDP growth. If the ratio of capital to national income rises, it means that wealth becomes more and more concentrated in the people holding the capital and less and less in the workers.

At the end of the 19th century in Europe, the ratio of private wealth to national income was very high; in the first half of the 20th century, however, due to the World Wars and the ensuing economic depressions, there was a reversal of this ratio, which has been rising again since 1950 as a consequence of the end of the Second World War and the subsequent economic growth process; today it seems that the ratio of private wealth to national income has returned to pre-1914 levels. The return to a high ratio of private capital to national income is mainly due to the slow pace of economic growth. In addition, in Western European economies, inherited wealth is of high importance in the process of dividing up national wealth, as a small amount of savings considerably increases the wealth one possesses. This further underlines the shift from a real economy to a financial economy,

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[9] Thomas Piketty, *Capital in the Twenty-First Century,* The Belknap Press of Harvard University Press 2014.

which translates into less investment, less disposable income, and less consumption; essentially, people with more wealth no longer invest in the manufacturing sector, creating jobs and fuelling the country's economy, but invest in the financial sector where they accumulate additional wealth for themselves.

Countries with high levels of inequality are of greater concern as the concentration of capital also erodes the political system by causing the people with the most wealth to pass laws in their favour and against most of the population, resulting in a weakening of democracy, social cohesion, and the disappearance of equal opportunities.

2.2 Inequality: Measurement

If one decides to measure inequalities between or within countries, there are four fundamental aspects to consider: the economic variable, the demographic unit of analysis, the reference time frame, the statistical indicator.

- o *Economic Variable*: Inequality can be studied and measured under different dimensions. Depending on the variable chosen, one will arrive at a measure of economic inequality in the narrow sense, or socio-economic inequality. The first concept refers to inequality in the distribution of economic resources; the second, on the other hand, refers to inequality in the distribution of economic and social resources: not only incomes and wages, but also education, employment, health, in short everything that contributes to well-being. The dimension of inequality that really counts, especially in order to be able to make judgements on social equity, is well-being, but to date there is no generally agreed definition and measurement of this concept. In practice, therefore, the most frequently used variables are: consumption expenditure (usually abbreviated to 'consumption'), wealth, but mainly income (usually disposable household income). There is no unanimity on which of these is more appropriate. The assumption of income as a relevant variable is justified by the influence of income on well-being but above all by the availability of data and the ease of measurement. The Stiglitz-Sen-Fitoussi commission[10] pointed out, however, that the relationship between income and well-being is controversial: after all, 'income is only one of the means by which a decent life is

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[10] J.E. Stiglitz, A. Sen, J.-P. Fitoussi, *Report by the Commission on the Measurement of Economic Performance and Social Progress,* 2009.

ensured' (Sen, 2006). Income can be defined differently: market income in a certain year is the sum of income from work, whether self-employed or employed, income from savings and investments, and retirement income of all household members; adding private transfers we arrive at gross household income; net income, or disposable income, is obtained by starting from gross income and subtracting private transfers, tax levies, contributions, and any property taxes. One form of specific income often used in distributional analyses is individual labour income. Wealth, which according to some is more representative of the economic dimension of inequality than income, is used less often due to problems of definition, detection, and measurement (Guiso et al.,2002) (Davies and Shorrocks,2000). Only recently have reliable and internationally comparable measures appeared: in 2007, the LWS (Luxembourg Wealth Study) was created, a new repository that collects information on wealth distribution for those countries that have provided it. Consumption is defined as disposable income minus accumulated savings. The distribution of consumption appears to be more equal than that of income, as the propensity to consume decreases with income. The welfarist approach favours consumption for measuring economic welfare and performing distributional analyses, since it is consumption that enters into the utility function of economic agents. This approach is not universally accepted: if economic inequality is defined in terms of access to economic resources rather than the actual exercise of this power, then income will be preferred to consumption.

o *Demographic Unit of Analysis*: Income, consumption, wealth can refer to a family unit or an individual. What is of interest for the purposes of distributional analyses is a population of individuals, but the available data usually refer to family units. In the case of labour income, there is a clear link between income recipients and benefiters; when we talk about disposable income, which is certainly a more appropriate and complete measure, we have data at the level of households, but it is not possible to observe the actual distribution within these, and in addition family units differ in structure and composition. Per capita income is not a solution to the problem: it does not consider the fact that adults and children may have different needs and that larger households may enjoy economies of scale in consumption. It is preferable to use equivalence scales that, adjusting for household composition and size, give each individual what is known as equivalent household income. In this

way, household incomes are transformed into comparable individual incomes. There is no single equivalence scale: the OECD assigns a value of 1 to the first adult in each household and then 0.7 to each additional adult and 0.5 to each minor; ISTAT adopts an equivalence scale that normalises everything with respect to a two-adult household.

o *Reference Time Frame*: The choice of the time span over which inequality is to be measured is important because, other things being equal, lengthening this period usually reduces inequality (S. Jenkins, 2008). If the period of analysis is large, on the one hand, temporary fluctuations are eliminated and this makes the analysis more truthful, on the other hand, since people's ability to cope with temporary fluctuations depends to a large extent on their wealth, there is a risk of obtaining measures that reflect poorly on access to resources. Another issue is that in the long run the characteristics of individuals or the household under consideration may change. The above considerations are valid not only for income but also for consumption: expenditure in a very short period might not represent actual consumption, since stocks exist; on the contrary, expenditure might not immediately turn into consumption, especially when it comes to durable goods.
The Expert Group on Household Income Statistics (The Expert Group on Income Statistics,2001) suggests using the year as the reference period, since it represents the reference unit of time for a large number of income sources.

o *Statistical Indicator:* Inequality can be defined as the dispersion of income or some other indicator of well-being (Litchfield,1999). There are many indices to measure inequality. Before choosing which one to use, one must ask oneself whether particular properties are required such as robustness, comparability, and which indicator makes best use of the available data.

According to the axiomatic approach, there are axioms[11], or desirable properties that any index should respect:

- Pigou-Dalton transfer principle: a progressive transfer (from rich to poor) should reduce inequality, a regressive transfer (from poor to rich) should increase it.

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[11] Bourguignon, Francois. *"Decomposable Income Inequality Measures." Econometrica, vol. 47, no. 4*, 1979, pp. 901–20. JSTOR, https://doi.org/10.2307/1914138.

- Independence from the mean: the inequality index must not change if there is a proportional change in all incomes (or in the welfare indicator used).
- Independence from population: the inequality measure must be neutral to population duplication: if each income (or other welfare indicator used) is replicated k-times or two equal datasets are merged, the index must not change.
- Principle of decomposability by groups: having divided the population by groups, an inequality index is said to be decomposable if it can be expressed as the sum of inter-group inequality and intra-group inequality.
- Principle of anonymity: The identity of the subjects must be irrelevant. The inequality indicator must be independent of any characteristics of individuals other than their income (or the measure of well-being used).

Any inequality indicator that satisfies these properties belongs to the class of Generalised Entropy Inequality Measures (Cowell,1995).

The most common inequality indices[12] are:

- **Range**: is perhaps the simplest measure of inequality (Sen,1997). It is simply obtained by dividing the difference between the highest and lowest income by the average income. If income is distributed perfectly equally it takes the value 0, if one person has all the income it takes a value equal to n, i.e., the number of individuals in the population. Certainly, easy to understand and measure, this indicator considers only two observations, does not assign different weights to different observations, is not robust to inflation and inclusion of extreme values in the calculation.
- **Percentile ratio**: After sorting the population by income and dividing it into percentiles, one divides the mean income value of a given percentile by the mean value of another, lower percentile, or alternatively, one can ratio the upper limits of the two quantiles. Any pair of percentiles can be considered; however, the most commonly used ratios are P90/P10 which ratios the incomes of the 90th and 10th percentiles of the distribution; the P90/P50 which considers the 90th and 50th percentiles and therefore the upper part of the distribution; the P50/P10 which focuses on the lower part of the distribution. The higher the

value obtained, the greater the distributional inequality. The percentile ratio is a very easy measure to understand and calculate, it is robust to inflation and the presence of extreme values. On the other hand, it only considers two groups within the population.

- **Relative average**: this is an indicator that, unlike the previous ones, does not consider only two observations or two subgroups. It is calculated by summing the absolute values of the deviations of each value from the mean and then dividing everything by the total income. When there is perfect equality, it takes the value 0, when all income is in the hands of one individual it equals 2(n-1)/n, where n is the number of individuals considered. The main problem with this indicator is that it does not respect the Pigou-Dalton transfer principle.

- **McLoone Index**: is calculated by dividing the sum of all incomes below the median by the product of the median value and the number of observations below this value. It is a rather intuitive indicator that gathers information on the entire lower part of the distribution. An index of .95 or greater indicates that the bottom half of a distribution is equitable (Verstegen, 2013) It ignores, however, all observations above the median.

- **Variance**: measures the mean of the deviations from the mean squared. Thus, it does not consider the absolute value of the deviations as in the relative mean deviation, but their square. This index incorporates all data, is robust to inflation, satisfies the axioms of anonymity, population independence, Pigou-Dalton transfer principle and decomposability into groups. It does not respect the principle of degressive transfer, i.e., it gives equal weight to all transfers, regardless of the income level of the recipients. It also has the drawback of not being scale-independent and requiring individual-level data. There is no variance value that unambiguously expresses an acceptable level of inequality.

- **Coefficient of Variation**: is calculated as the ratio of the mean square deviation to the mean. It is part of the Generalised Entropy Inequality Measures. It satisfies the axioms of anonymity, independence from the population, independence from the mean, Pigou-Dalton transfer principle, it is decomposable by groups but like the variance it does not comply with the principle of decreasing transfer. It considers all observations, is robust to inflation and if the observations are weighted, is not distorted by the presence of outliers. On the other hand,

individual-level data are needed to calculate it and there is no universal value that expresses an acceptable level of inequality.

- **Variance of Logarithms**: is calculated in the same way as variance but the deviation considered is between the logarithm of the individual observation and the logarithm of the mean. It is sometimes preferred to use the geometric mean rather than the arithmetic mean to calculate this indicator. This indicator is part of the Generalised Entropy Inequality Measures: it satisfies the principles of decreasing transfer, independence of the mean and population, anonymity but not the Pigou-Dalton transfer principle. Although the logarithmic transformation reduces deviations from the mean and thus reduces the strength with which inequalities are reflected, this indicator is useful if one wants to highlight differences at the bottom of the income distribution.

- **Lorenz curve**: Although part of the concentration indices, the Lorenz curve is not a synthetic index but rather a relative measure of inequality. To construct it, individuals are ordered in ascending order with respect to income and the cumulative income distributions are calculated; a graph is constructed by placing the percentage of population in the abscissa and the percentage of income in the ordinate and then a curve is drawn associating each given percentage of population with the respective cumulative share of income. In the case of a perfectly egalitarian distribution, the curve will be a 45° straight line, the so-called diagonal of equality: at each point, the cumulative share of population equals the cumulative percentage of income; if, on the other hand, the concentration is maximum and only one individual possesses all the income, the Lorenz curve will coincide with the horizontal axis up to the last individual at which point it will jump to the point (100,100). In reality, the Lorenz curve lies somewhere between these two extremes: the closer it is to the bisector, the more equal the income distribution will be, and vice versa. The Lorenz curve satisfies the principles of transfer, anonymity, scale, and population independence. There are, however, problems of comparability: if the two curves do not intersect, the one closer to the bisector has an unambiguously fairer distribution; if, on the other hand they intersect at least once, it is neither immediate nor unambiguous to establish which income distribution is more

equal and the comparison remains indeterminate. This is precisely why numerical indices of inequality are preferred.

- **Gini index**: is a statistical indicator of concentration. Intuitively the Gini index is equal to twice the area between the Lorenz curve and the diagonal of the equality, mathematically there are several formulas that can be used to calculate it. The Gini index, by construction, varies between 0, a situation where the Lorenz curve coincides with the diagonal of equality, and 1, a situation of maximum inequality where one individual holds all the income. In reality, values between 0.20 and 0.30 are measured for countries with a low degree of inequality and between 0.50 and 0.70 for those with high inequality. The Gini index enjoys the properties of anonymity, independence from the population, independence from the mean, Pigou-Dalton transfer principle, takes into account all observations, provides an immediate measure of inequality and always allows a comparison of two distributions. It does not, however, satisfy the principle of decreasing transfer and the principle of perfect decomposability between groups. In addition, it requires individual-level data, and its calculation can be complex.

The World Bank data, although fragmentary, photographs a rather clear reality. Inequality reaches maximum values in Africa, with average indices above 0.50. The record is held by South Africa with 0.63. At a slightly lower level of inequality is the large area of Latin America, where values are between 0.40 and 0.50 with peaks in Colombia (0.542) and Belize (0.533). The United States of America boasts an uninspiring 0.415, barely higher than Malaysia (0.411). In the block between 0.30 and 0.35 we find, among others, Egypt, Thailand, Bangladesh, and Tunisia. Over the past thirty years, Europe has seen a halt to the narrowing of income gaps that began at the beginning of the 20th century. Inequality has also become highly concentrated on a territorial level: the worst performer is Bulgaria (0.403) followed by Lithuania (0.353). The area of lowest inequality, on the other hand, is the central-northern region, with the lowest European index in Slovenia (0.246), followed by the Czech Republic and Slovakia (0.25) and a patrol of Belgium, Denmark, Finland, Croatia, Hungary and the Netherlands, whose indices range between 0.272 and 0.297. Our country has a Gini index of 0.352 (latest data from the World Bank and the Bank of Italy updated to 2018),

which unfortunately places us at the top of the continental ranking of inequality: worse than us are only Bulgaria, Romania, Lithuania, and Luxembourg. Since 2007, the Italian index has been on a rising trend, having passed from a more 'egalitarian' 0.329 to the current official figure. After all, if in 1995 in Italy the richest 10% of the population concentrated about 50% of the wealth in their hands, in 2016 that same share of the population gathered more than 60%. It should be noted, however, that the official figures predate major world events, such as the pandemic and the war in Ukraine, which have significantly worsened the situation.

Figure 10 – Gini index 2022

Source: https://worldpopulationreview.com/country-rankings/gini-coefficient-by-country
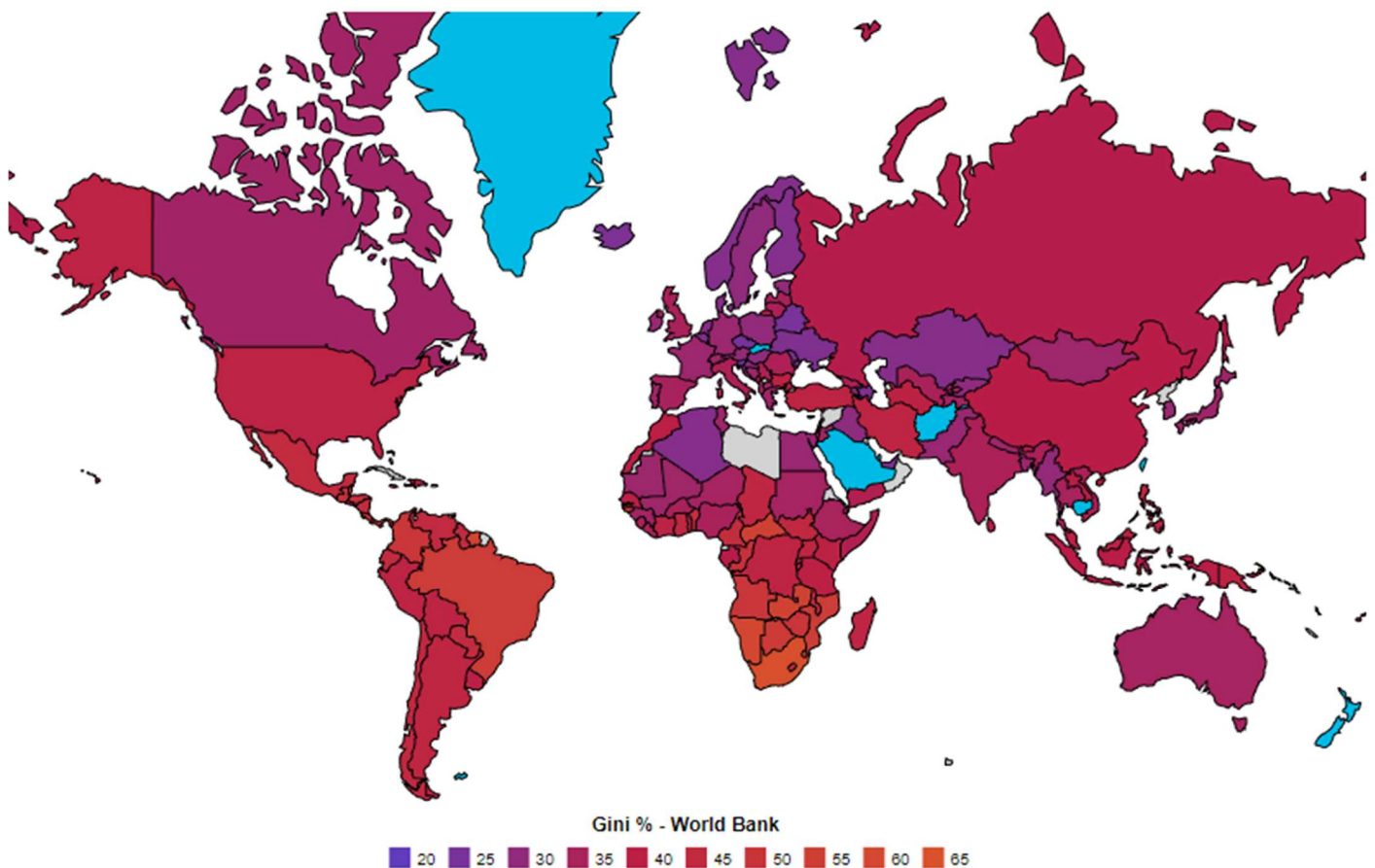
- **Theil's Index**: In 1967, Henry Theil in his book "Economics and Information Theory" proposed a measure of inequality based on the concept of generalised entropy. This is an unintuitive measure that nevertheless possesses certain properties that make it superior to the others. Theil's approach is based on the

concept of entropy in information theory: the underlying idea is that unexpected events are more valuable in terms of information than predictable events. If there is perfect equality in income in the population, it is easy to predict the income level of a randomly chosen individual. Theil's index is part of the Generalised Entropy Inequality Measures and satisfies all of the above axioms (Collier,1999). In the case of perfect equality, it takes the value 0, in the opposite case it is equal to the logarithm of the number of individuals: its upper limit therefore depends on the size of the population. One of the striking features of Theil's index, and of the entropy indices more generally, is that it is perfectly decomposable into the components within and between groups. Theil's index has the undoubted advantage that it can be constructed from aggregate data if individual data is not available, but it is rather complex to calculate and does not allow a comparison between populations with different size or structure.

- **Atkinson Indices**: this name refers to a family of indicators that are very useful for determining which part of the distribution contributes the most to the observed inequality. They take values between 0, if there is perfect equality, and 1, if there is maximum inequality. An innovative element is that an inequality aversion parameter (e) is included in the formula: the value taken by this parameter defines the different indices, and the higher the value of e, the greater the inequality aversion and thus the importance accorded by the index to the lower part of the distribution.

2.2.1 Can Gross Domestic Product represent an Inequality Measure?

The Gross Domestic Product is a measure often used to compare countries' economies and societies. The GDP is an economic indicator through which it is possible to measure the wealth produced by a country or in a certain geographical area, over a specific time period, conventionally referred to as the year.

GDP can be measured in three different ways which highlight its functionality. The first approach, on the demand side, is achieved by summing up all the components of final demand, i.e., expenditure and investments made by consumers, businesses, and government.

This system is frequently used to derive information on the purchasing power of households and the investment capacity of businesses, which is relevant data for the setting of interest rates by central banks. The second method, focusing on supply, involves calculating the sum of the value added at each stage of the production process. The data collected can be useful for developing a detailed analysis of the composition of the national product by type of industry. Finally, since the GDP remunerates the factors of production, it can be calculated as the sum of compensation of employees and the gross operating surplus of the economy, also taking into account taxes on production and VAT, net of production subsidies, and also including the parts of the output generated by the shadow economy.

GDP effectively summarises economic trends: its growth at constant prices quantifies the positive performance of an economy. Fluctuations in economic activity can be detected by its percentage changes: when real GDP declines for at least two consecutive quarters, the economy is considered to be in recession. Gross Domestic Product represents, therefore, a measure of the economic size of countries, which can easily be used in international comparisons through the use of exchange rates for the reference period.

Furthermore, from GDP other significant indicators are easily deduced. For example, to obtain a representation of the relative degree of development of different states, the GDP measure can be divided by the amount of population, obtaining the GDP per capita.

From Figure 11 we can observe the division of the world by Gross Domestic Product per capita.

As an example, Figure 12 shows GDP per capita data between the years 2000 and 2021 in four different European countries: Germany, France, Italy, Spain (Eurostat). In the four nations, a decline can be noted in conjunction with the 2007-2008 financial crisis that firstly hit the United States and then the rest of the global economy, with a subsequent upturn from 2009. In the same manner, one can notice that all four states had a decline in GDP per capita right before the start of the COVID pandemic, with a successive recovery in 2021.

Figure 11 – GDP per capita (2020).

No data $0 $1,000 $2,000 $5,000 $10,000 $20,000 $30,000 $40,000
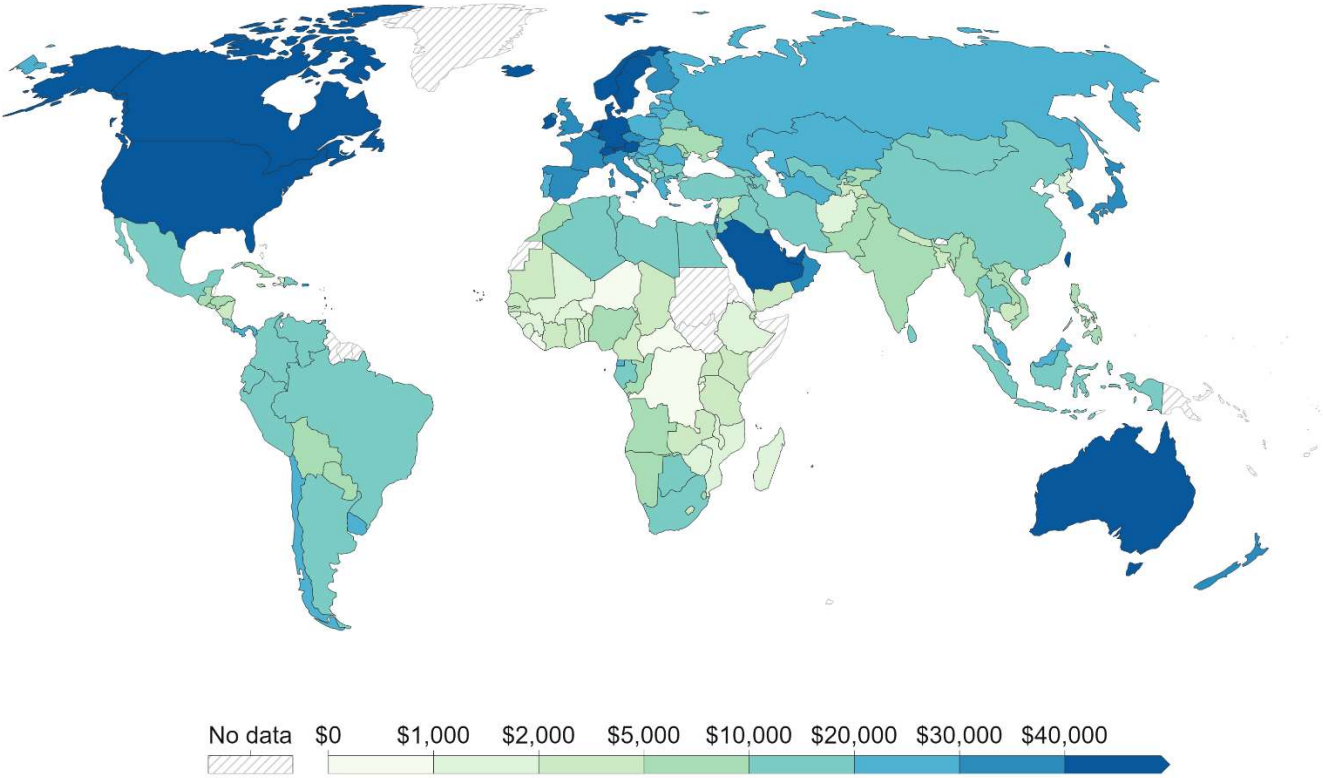
Source: Maddison Project Database 2020 (Bolt and van Zanden, 2020)

Figure 12 – GDP per capita of Italy, Germany, France, and Spain over the last 20 years
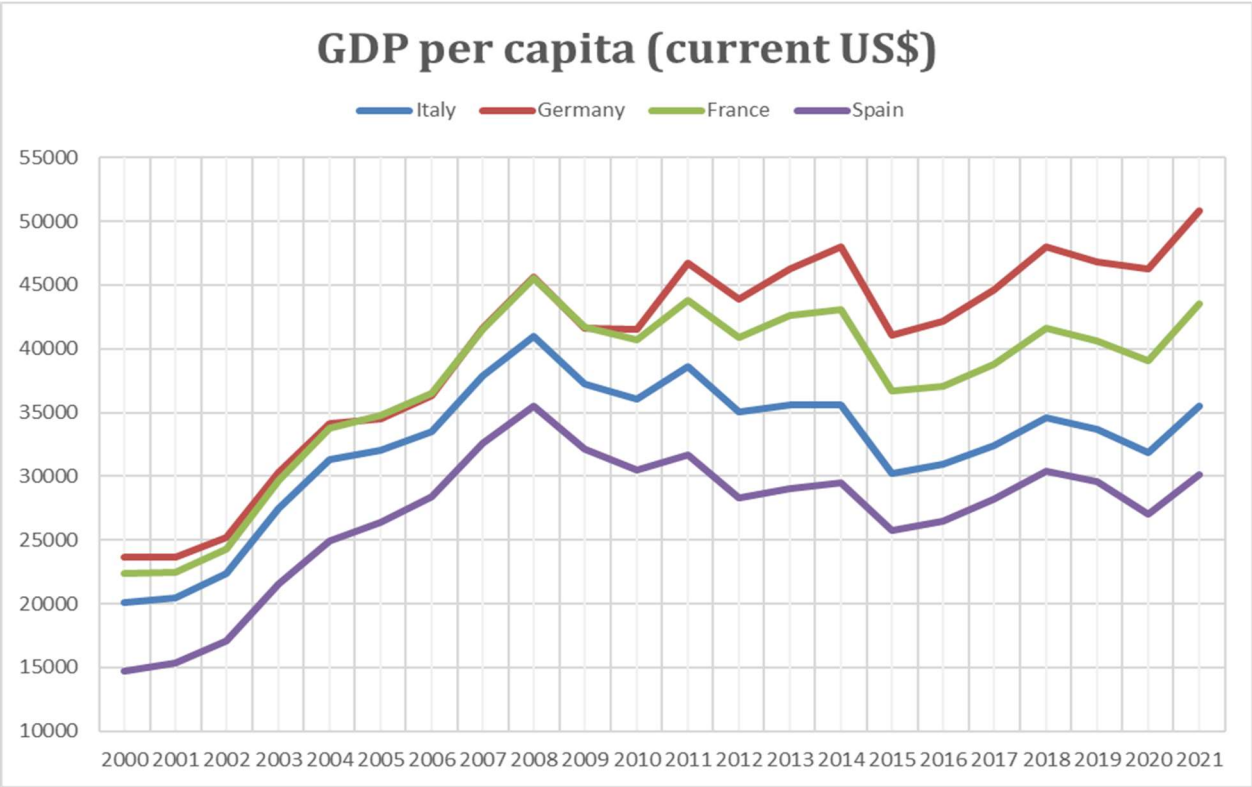
Source: World Bank

Dividing nominal GDP by real GDP results in the GDP deflator, an expression of the change in the prices of all goods produced. The simplicity and significance of the Gross Domestic Product have made it the main tool of global macroeconomic policies. It is currently the main economic indicator commonly used internationally. However, recent historical and economic developments have highlighted its weaknesses, opening the door to a debate on its usefulness for measuring the well-being of individuals and society as a whole and to the development of new indicators that can fill the gaps and remedy the contradictions and distortions found in GDP.

Although media attention is currently focused on 'economic recovery', the instability caused by the economic crisis and the relentless deterioration of the environmental condition have shown that traditional approaches are no longer appropriate. A debate is underway on which depends the fate of the current development model, based on economic growth and its number: GDP.

The International Monetary Fund has found that informal economies account for 44% of incomes in developing countries, 30% in transitioning countries and 16% in developed ones. The informal economy, which often forms the backbone of the formal economy includes, for example, household, voluntary and non-profit activities. These activities, crucial for the livelihood of millions of people, are neglected in the calculation of GDP. The latter does not measure many factors that contribute to the well-being of society, but which do not give rise to market exchanges, such as direct transactions between subjects. GDP has reduced the complexity of society to a series of numerical measurements, giving exclusive importance to market principles, completely neglecting social and ecological issues. The accumulation of wealth led to the creation of inequalities, exploiting common resources, and generating the ecological disaster we face. Its principles contributed to the division of countries into two categories: the 'developed' and the 'underdeveloped', dominated by informal economies, subservient to the GDP ideology. The father of GDP himself, Kuznets, made it clear that his invention was limited to the quantification of market transactions rather than an overall assessment of production in an economic system, effectively neglecting goods produced outside a formal economy. Furthermore, the distinction between proper market activities and other activities that are nonetheless useful for the economy is influenced by a number of factors related to culture, institutional conditions and political conceptions that vary, limiting the application of this method when comparing

countries over time. In fact, the lower nominal growth of economies of the past is caused not only by the greater limitation in productive capacity, but also by the many social functions that were not managed by the market, such as family farming and locally shared services.

In Europe, the Continental Statistical Office, Eurostat, proposed the inclusion of profits from prostitution and the sale of soft drugs in the GDP. The aim is to make statistics more comparable, since in some countries these activities are included in the calculation of the indicator, as they are legal, while in others they are not. However, many experts have raised the suspicion that this is an attempt to remedy drastic drops in GDP during periods of recession[13]. Italian GDP has seen the highest growth in the international scenario due to the inclusion of 'illegal' activities: it grew by 1% in 2011. GDP, being an average of income and production, is based on the assumption that a physical increase in production corresponds to an increase in consumption and thus in welfare. This statement, however, does not consider distributive inequalities in terms of income within society. GDP, in fact, does not indicate the level of equity within the country. A country in which the rich get richer and richer, while the poor get poorer and poorer, can easily have high levels of growth, but low levels of equity in the distribution of wealth.

In a report titled Growing Unequal, the OECD found that inequality has increased disproportionately in the major industrial countries, at least since the 1980s. The same trend emerged with regard to data of developing countries, showing that GDP performance and inequality were growing in tandem[14]. The literature often refers to how the level of income inequality in a society is strongly correlated with a number of health and social outcomes, such as life expectancy, mortality rates, obesity, teenage pregnancies, the prevalence of psychiatric illnesses, homicide and violence rates, quality of social relations, educational performance, and social mobility[15]. Therefore, States with similar levels of GDP can be very different in terms of income distribution and well-being of the population.

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[13] Josh Zumbrun, *Sex, drugs and GDP: the challenge of measuring the shadow economy*, in "The Wall Street Journal", 2014.

[14] OECD, *Growing unequal: income distribution and poverty in OECD countries,* Paris 2008; *Divided we stand: why inequality keeps rising,* Paris 2011.

[15] R.G. Wilkinson, K.E. Pickett, *The problems of relative deprivation: Why some societies do better than others*, Social Science & Medicine 65 (2007) 1965–1978.

Kuznets also observed that GDP growth in industrialised countries could be higher than its actual level due to the inclusion in the calculation of goods and services whose purpose is to mitigate the undesirable effects of industrialisation.

The pollution of water resources, for example, leads to an increase in the sale of bottled water, traffic accidents can trigger a boom in the purchase insurance policies, and the increase in crime can drive people to buy weapons, armoured doors, and other security systems. GDP does not distinguish between activities that contribute to an increase in the well-being of society and those that decrease it but considers all transactions that take place in the market as positive, painting a distorted picture of reality. Activities that are linked to negative externalities, such as pollution and natural disasters, or activities that arise from illegality, such as money laundering, contribute equally to increasing the value of GDP.

In the definition of GDP, reference is made to the market value of all finished goods and services produced within the borders of a nation, over a given period of time. However, this implies a rough measure of market production, as it does not take into account the consumption of capital goods and the stock of natural capital, such as raw materials and forests, which represent a cost. Kuznets gave relevance to the important difference between net and gross product. Net product is a more accurate measure since "the value of the production of goods and services is reduced by the consumption of goods used in the production process "[16] by subtracting the loss of value from the final product.

In contrast, gross product does not consider the goods consumed. Despite this important distinction, measuring capital consumption would have been time-consuming and would have posed numerous difficulties. For these reasons, GDP prevailed. Similarly, the GDP does not reflect the stress and fatigue of workers: people are considered exclusively as consumers and not also as producers of goods and services, which can be 'consumed' by labour.

Moreover, in Nordhaus and Tobin's (1972) critique of GDP, some expenditures by consumers and government are instrumental, i.e., they do not add utility to individuals, such as the cost of transport to work or national security services and defence. In some

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[16] S. Kuznets, *National income, and capital formation, 1919-1935,* National Bureau of Economic Research, New York 1937,

cases, these expenditures represent utility losses, as they create inconvenience to consumers, and therefore, conceptually, should be excluded from the measurement of the well-being and progress of a nation, as GDP is proposed to be. Nevertheless, its calculation includes these costs. Not only that: according to Nordhaus and Tobin, from the early 1930s to the mid-1960s, at the peak of the economic boom, these expenses constituted over 16% of GDP[17].

The opposite problem arises with regard to the quality of goods and services placed on the market: although in the most advanced and complex societies this constitutes an important aspect of the measurement of income and real consumption on which the level of well-being of society depends, it is not part of the parameters for measuring GDP. A clarifying example is the services that the State and Public Administration provide, particularly services of an individual nature, such as health or education, as they significantly influence living standards. GDP measures the value of these services in terms of costs at market prices, such as the cost of medical personnel and medical equipment, but not in terms of the outcomes achieved, such as the type of diseases treated and the outcomes and quality of services. A healthcare system which is considered inefficient but very expensive increases GDP but not consumer utility. In contrast, an efficient one, creating a large amount of utility to consumers, produces little growth in GDP, due to low prices. Prices are the cornerstones of GDP calculation. In theory, prices should correspond to the utility that goods and services provide to consumers. However, there are many prices that are not influenced by consumer preferences, such as those of financial instruments.

Financial intermediation proves wrong the logic that places price as an index of utility for the buyer, since the risk rate and preferences are no longer selected by the owners of capital, but by the managers of funds. The calculation of government expenditure in the calculation of GDP presents a similar problem: in theory, the prices of goods and services provided by the government should contribute to national wealth in proportion to the utility generated for consumers. In fact, GDP assesses this contribution on the basis of the cost to the government, which is not fixed by the market. Moreover, productivity and technological progress make indicator prices unreliable. Fewer inputs and less labour force required to produce a better result than in the past, have significantly reduced prices. In order to avoid the penalisation of technologically advanced economies, where costs

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[17] W.D. Nordhaus, J. Tobin, *Is growth obsolete?* 1971.

decrease as performance increases, GDP must be adjusted by taking into account performance and product quality.

Furthermore, the economy becoming even more digital: with technologies such as Skype or WhatsApp it is possible to communicate from anywhere for free, with applications such as Airbnb it is possible to book flights and accommodation, allowing one to organise a holiday at half the cost necessary if one went through an agency. This leads to an increase in consumer utility but reduces GDP and growth. Thus, GDP proves to be a highly anachronistic indicator, ignoring the fact that production processes have changed over time, along with the roles attributed to people, markets, and the State as economic agents. It accepts market prices as accurate representations of the intrinsic value of goods and services, despite the fact that they are bad units of measurement, manipulated by the market and political interests.

In the age of multinational corporations, the pitfalls that GDP can hide increased. Because of this, it does not attribute a multinational's profits to the State where it is based, but to the State where the factory or business is located. However, in reality, the host country enjoys the benefits of relocation, to the detriment of the host country, which is burdened with the negative externalities associated with the presence of the foreign business (pollution, child and resource exploitation). In many cases, the host country will see an increase in GDP, without having benefited, but rather, having suffered the consequences of the foreign presence.

In the era of globalisation and large multinational industries, the increase in production and consumption has to come to terms with an increasingly worrying scarcity of resources along with environmental degradation which plagues the planet. According to F. Hirsch[18], GDP growth is a self-feeding destructive force. For example, the use of air-conditioning systems cools the inside of homes while emitting heat to the outside. This forces neighbours to suffer the increase in temperature and to remedy they end up buying more air conditioning systems, generating a chain effect[19]. In China, pollution has induced the spread of filtration and air-conditioning systems, generating GDP growth, while at the same time contributing to the pollutant emissions responsible for climate change.

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[18] F. Hirsch, *The social limits of growth*. Harvard University Press, 1976.
[19] A. Antoci, S. Bartolini, *Negative externalities as the engine of growth in an evolutionary context,* Working Paper n83/99, 1999.

GDP growth thus creates a vicious circle.

Another factor that is not contemplated is the depletion of resources that could compromise future consumption capacity. In 1972, a book entitled *The Limits to Growth*[20] provided a prediction of the potentially irreversible damage of GDP growth: growth corresponding to that experienced until the 1970s would certainly increase inequality, widening the gap between rich and poor nations, and would cause a global shortage of resources between 2050 and 2070.

When the Gross Domestic Product was developed in 1934, Simon Kuznets, presenting it to the US Congress, declared that "the well-being of a nation cannot be easily deduced from an index of national income". Since the mid-20th century, a small number of studies have shown that there is no correlation between increasing GDP and happiness.

In Figure 13 we can see that life satisfaction is high but decreasing in many European countries, despite growing wealth. India's GDP per capita has increased by 80% in the past ten years but average happiness has fallen considerably. If we look at Venezuela, we can see that its economic collapse has caused widespread misery.

Figure 13 – Relation between Happiness and GDP per person (2019).
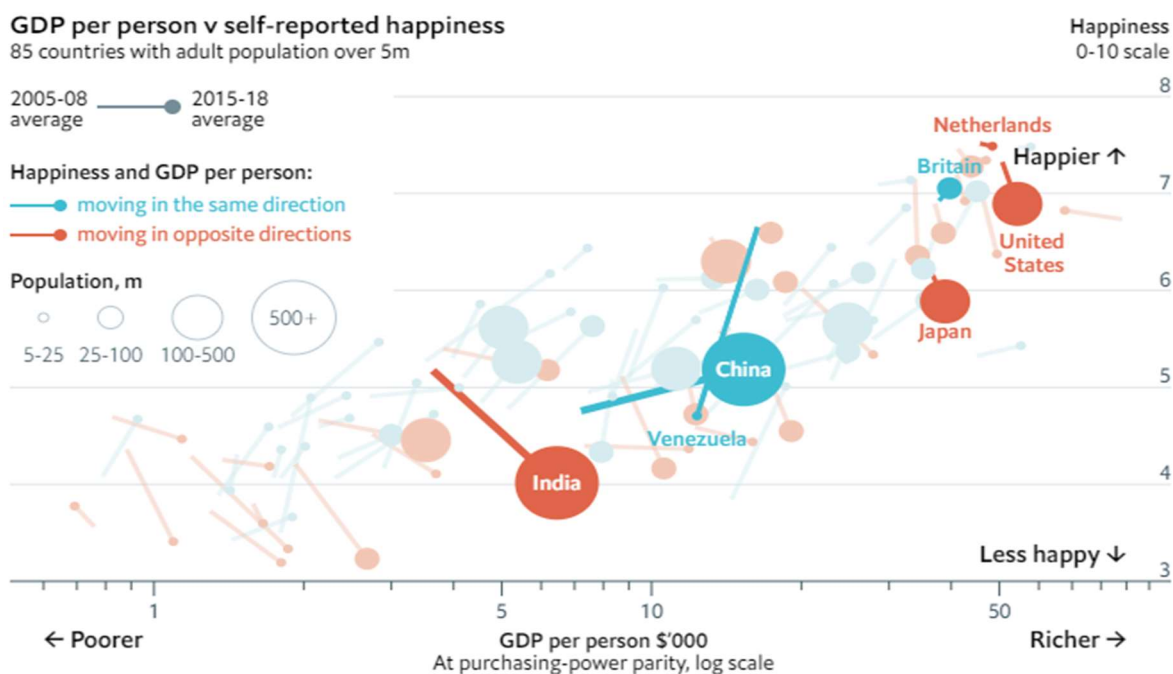
Source: World Happiness Report, 2019.

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[20] Donella H. Meadows, Dennis L. Meadows; J. Randers; William W. Behrens III, *The Limits to Growth*, New York 1972, Universe Books.

Economist Richard Easterlin proved that after reaching a certain income level, happiness does not increase with GDP. After conducting the first empirical analysis of the effects of national wealth on individual happiness, in a famous article in 1974, Easterlin concluded that "economic growth does not bring society to a state of abundance. On the contrary, the process of growth creates new desires that produce increasing scarcity"[21]. Two decades later, Easterlin reached the definitive conclusion that happiness varies directly with one's income and inversely with that of others. Increasing everyone's income, according to Easterlin, does not increase everyone's happiness, because the positive effect of higher income is cancelled out by new social demands and norms created by the growth process itself[22]. The so-called "Easterlin Paradox" has been confirmed by opinion polls all over the world: "If richer and poorer countries are compared at a point in time, life satisfaction increases with the absolute amount of GDP per capita, but at a diminishing rate".

Figure 14 - Diminishing Marginal Utility of Income
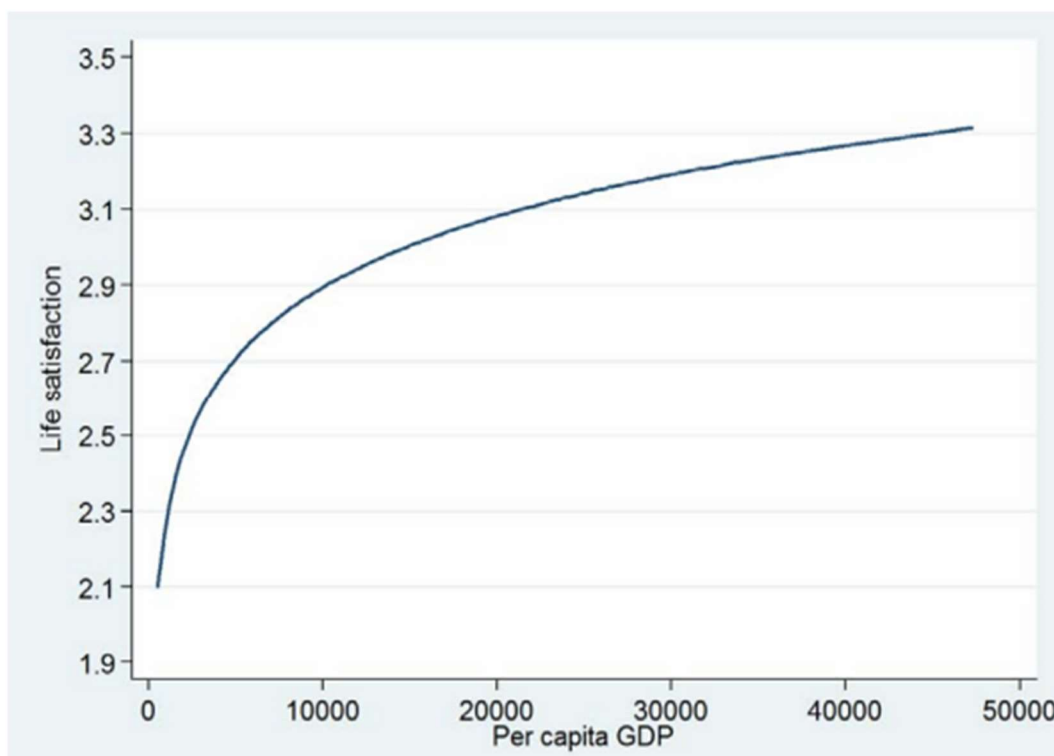
Source: Richard A. Easterlin Laura Angelescu, *Happiness and Growth the World Over: Time Series Evidence on the Happiness-Income Paradox,* 2009

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[21] R.A. Easterlin, *Does economic growth improve the human lot? Some empirical evidence,* in P.A. David, M.W. Reder,, Academic Press, New York-London 1974, p.121.

[22] R.A Easterlin, *Will raising the income of all increase the happiness of all?* in "Journal of Economic Behaviour and Organization", 27, 1995, pp. 35-36.

For example, in 1994, the election campaign in the United States highlighted the fragility of GDP: the indicator showed a growing economy, productivity and employment rates were high, inflation was under control, and the World Economic Forum in Switzerland declared that the United States had regained its leadership as the most competitive economy in the world. Nevertheless, American voters were not satisfied. This gap between what economists had found and what citizens actually experienced became the official campaign conundrum. "Paradox of '94: Gloomy Voters in Good Times" headlined the New York Times.

Gross Domestic Product has become the symbol of a model of society, influencing economic processes but also political and cultural ones. It directs the macroeconomic policies of governments, setting priorities in the social field. However, "What we measure influences what we do. If the measurements are wrong, we end up making the wrong decisions."[23]

2.3   Alternative Measures of Inequality

After analysing the Gross Domestic Product, in its traditional sense, and the criticisms that have been levelled at it as a measure of well-being, this third subchapter describes some of the alternative, more accredited indexes: the Human Development Index, the Gross National Happiness Index, the Better Life Index and the Index of Sustainable Economic Welfare/Genuine Progress Indicator.

All of these indicators aim to measure social welfare through the use of many different variables.

- The Human Development Index is measured through the use of three different variables: GDP per capita, literacy rate and life expectancy.
- Gross National Happiness Index, on the other hand, is based on the use of four parameters: protection of the environment, preservation of culture, good governance, and economic and eco-sustainable development.
- The Better Life Index on the other hand consists of 11 categories: social relations, education, environment civic engagement, health, housing, income, work, life satisfaction, security, work-life balance.
- The Index of Sustainable Economic Welfare, on the other hand, is measured by summing personal consumption, non-defence public spending, capital formation

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[23] J.E. Stiglitz, A. Sen, J.-P. Fitoussi, *Report by the Commission on the Measurement of Economic Performance and Social Progress,* 2009.

and domestic labour services from which private defence spending, environmental degradation costs and natural capital depreciation must be subtracted.

The reason why these specific indices have been analysed lies in the fact that the elements around which revolves the concept of well-being of our generation and future generations are: development, happiness, progress, but, above all, the sustainability of the choices we make.

What we want to make clear with the analysis of these alternative indices is that inequality of wellbeing is not only an economic concept but must cover several aspects. What each index represents is the difference between countries and geographical areas and thus see how the world is divided and the inequality between geographical regions.

2.3.1 Human Development Index

The Human Development Index (HDI) is a macroeconomic development indicator that represents a different way of assessing the well-being of a nation, because it studies not only GDP per capita, but also other societal factors, including life expectancy at birth, the amount of food calories available per capita, the availability of drinking water, the literacy rate and schooling rate of the population, access to health services and the degree of political freedom.

The Human Development Index was first introduced in 1990 by Pakistani economist Mahbub ul Haq. It is used today by the United Nations (UN) as an indicator of the quality of life of different countries. Since 1990, the Human Development Report has been published every year discussing different themes. The countries belonging to the UN, currently 193, are ranked according to their human development index and the report is published by the United Nations Development Programme.

"People are the true wealth of nations." With these words, the first Human Development Report, published in 1990, introduced a vigorous argument for a new way of conceiving development. That the ultimate goal of development should be the creation conditions necessary for each individual to lead a long, healthy, and productive life may seem obvious today; but it was not always so. Over the past two decades, a central objective of the Human Development Reports has been to emphasise that development is primarily and essentially about people.

As said before, the premise on which the Human Development Index was founded was based on the notion that the development of a nation should be measured not only by national income, as was customary, but also taking into account life expectancy and literacy rates, factors for which comparable data already existed for most countries (UNDP). This index can also be used to question national policy choices, and study how countries with the same level of GDP per capita can achieve two different human development outcomes.

It also represents a measure of the average level achieved in the key dimensions of human development: living a long and healthy life, acquiring knowledge, and being able to enjoy a decent standard of living. As already mentioned in this paper, it is worth emphasising once again that this indicator is not an alternative measure to GDP but can be seen as a complement to it. It is in fact, based mainly on three factors: GDP per capita, access to culture and education (represented by the degree of literacy) and the possibility of leading a long and healthy life, the unit of which can be life expectancy. Each of these three factors has the same weight for the calculation of the index, and until 2009 this calculation was founded on the arithmetic mean using a logarithmic basis that generated a value from 0 to 1. Since 2010, the measure of access to knowledge is linked to the education index (which includes the average and expected years of to education), which is indexed using a geometric mean.

The Human Development Index, as well as most economic and social indicators used globally, has been the subject of numerous criticisms. Among these is one prompted by the United Nations Development Programme (UNDP) itself, because the data used to make the calculation, is not collected by the organization itself, but is collected by other statistical institutes, such as ISTAT in Italy for GDP per capita, or comes from reports of other UN agencies. Furthermore, most countries devote themselves to the collection of data related to the economic sphere, neglecting data on indicators such as education and health, which are therefore not always available. Furthermore, an additional problem is that extensive time lags can elapse between the moment of data collection and the moment in which it is delivered to the UNDP.

Thus, this can result in the index being calculated with data that is not up-to-date and also makes comparison between countries difficult, as the data used may belong to different time periods.

As of 2010, the methodology for calculating the index has changed and currently the simple arithmetic average of the three previously mentioned components is used, i.e., GDP per capita, life expectancy and level of education. In such a way, as previously mentioned, equal weight is given to each factor. It is precisely on this aspect that the second criticism is based: using the simple arithmetic mean, the average value of the resulting index may indicate very different qualitative levels of human development. This means that if we consider two countries, A and B, which were assigned the same index, they may have a different distribution of their components. Country A, in contrast to country B, might have a high GDP and high life expectancy, but a low level of education. Country B, on the other hand, with the same Human Development Index, might have a high level of education and life expectancy but not a very high GDP.

So, the arithmetic average does not do justice to information that is not easily deductible from the index itself and which, instead, might find greater consistency in the weighted average.

A further criticism was made by Nobel Prize winner in economics Amartya Sen, the same who contributed to the drafting of the 'Stiglitz Report[24]', according to which, in the calculation of the index of human development, some important factors are not taken into account, such as freedom of elections, an independent press, a multi-party-political system, guarantees of freedom and expression. Furthermore, the index does not contain indicators relating to technological development, culture, and environmental sustainability.

Table 10 shows the value of the Human Development Index in the Top 10 countries of the last 6 years. They represent the top 10 countries having very high human development, with values ranging from 0.925 to 0.962. As we can see in the next table, Table 11, USA, Italy, Spain, and France only rank 21, 30, 27, 28 respectively, still in the ranking of very high human development. Pakistan (161) and Iraq (121), instead, fall in the category of low human development and medium human development respectively, with values ranging from 0.53 to 0.69. It is also possible to look at the map below to see the division of the world in different categories.

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[24] See page 34.

Table 10 – HDI for the Top 10 Countries (2015 to 2021)

Human Development Index (HDI)									
		Value							
HDI rank	Country	2015		2018		2019		2020	2021
1	Switzerland	0,954		0,959		0,962		0,956	0,962
2	Norway	0,953		0,962		0,961		0,959	0,961
3	Iceland	0,945		0,959		0,960		0,957	0,959
4	Hong Kong, China	0,935		0,949		0,952		0,949	0,952
5	Australia	0,933		0,941		0,941		0,947	0,951
6	Denmark	0,936		0,942		0,946		0,947	0,948
7	Sweden	0,937		0,942		0,947		0,942	0,947
8	Ireland	0,925		0,937		0,942		0,943	0,945
9	Germany	0,938		0,945		0,948		0,944	0,942
10	Netherlands	0,932		0,939		0,943		0,939	0,941

Source: Human Development Report 2021-2022

Table 11 – HDI between 2015 and 2021

Human Development Index (HDI)									
		Value							
HDI rank	Country	2015		2018		2019		2020	2021
27	Spain	0,889		0,901		0,908		0,899	0,905
28	France	0,892		0,901		0,905		0,898	0,903
21	United States	0,920		0,927		0,930		0,920	0,921
30	Italy	0,882		0,893		0,897		0,889	0,895
161	Pakistan	0,534		0,545		0,546		0,543	0,544
121	Iraq	0,675		0,692		0,696		0,679	0,686

Source: Human Development Report 2021-2022

Figure 15 – Human Development Index 2020
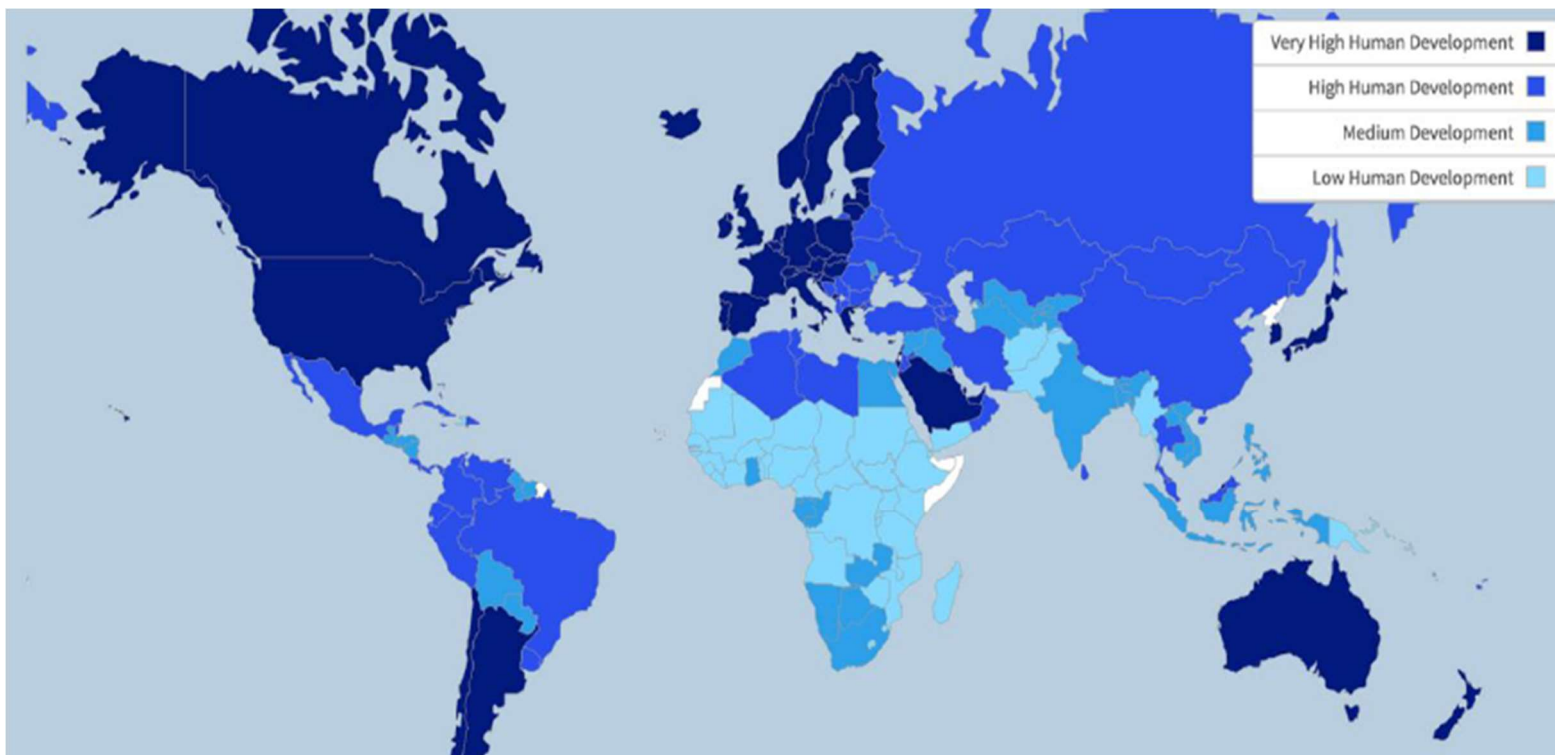
In 2010, the UNDP, through the 'Human Development Report 2010', introduced three new indices, representing a new version of the Human Development Index, which attempt to address some of the criticisms that have been directed at the HDI, using more relevant indicators to assess future progress (UNDP, 2010). The first of these is the Inequality-Adjusted Human Development Index (IHID), which is a measure of the level of human development of people in a given society, given the level of inequality.

It follows that when there is no disparity between people, IHDI is equal to HDI.

In delving into the subject of inequality, which is particularly important, it must be noted that it also originates from the different conditions in which women and children find themselves. We, then, introduce a second index with the aim of highlighting the differences in the distribution of 'gender' resulting in the three dimensions of health, education, and the labour market. Through the use of the Gender Equality Index (GEI), therefore, it was possible to find that:

- gender inequality varies considerably across countries.

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[25] UNDP (United Nations Development Programme). 2020. *Human Development Report 2020: The Next Frontier: Human Development and the Anthropocene*. New York.

- countries with an unequal distribution of human development also have a high level of inequality between men and women, and countries where this level is high also usually have an unequal distribution of human development. This means that these two concepts are closely related to each other.

Figure 16 - Global GEI, 1995-2019.

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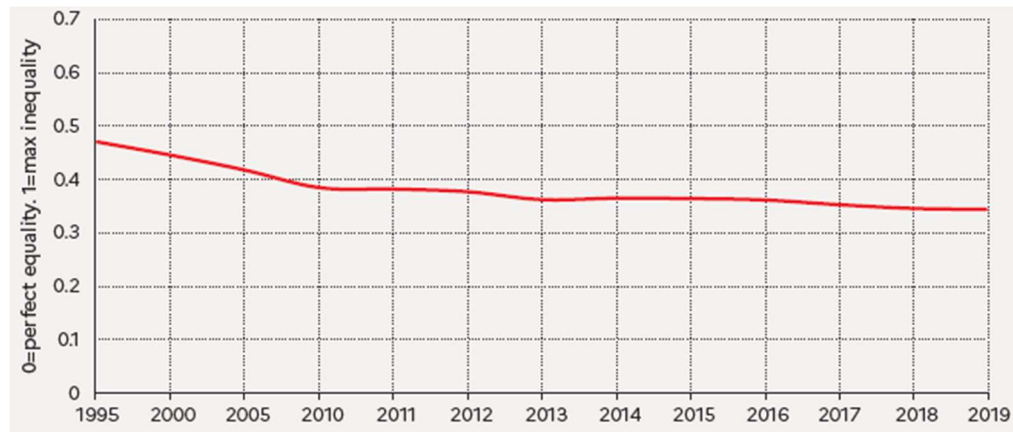
Figure 17 – Gender Equality Index 2022.
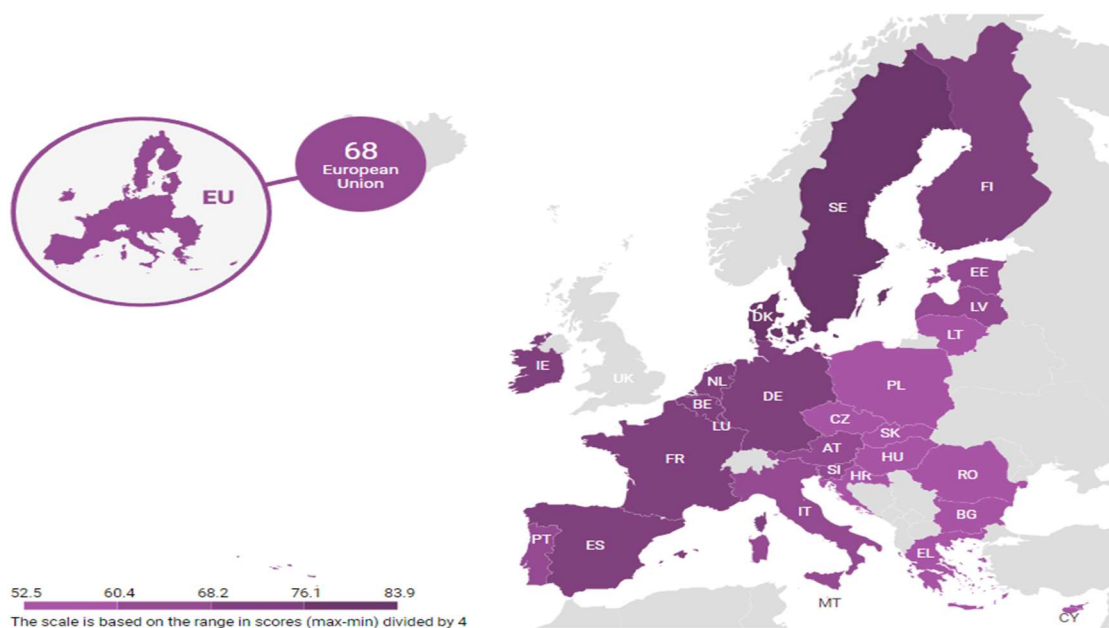
Figure 16 reveals that, overall, between 1995 and 2010, gender equality improved, but then stabilized. Prior to 2010, improvements in health and school access (with women nearly at parity in average primary enrolments) were the key drivers of progress. The reason why,

despite some advancements at the regional and national levels, the global female labour income share has not increased more quickly since the 1990s is due to the persistence of strong inequality in access to good jobs and good pay as well as the negative trajectory observed in large countries over the past decades (such as China). Women of working age continue to earn roughly half as much as men in the early 2020s.

Finally, the third index introduced is the Multidimensional Poverty Index (MPI). As development, poverty is also multidimensional, but this aspect has often been ignored by official statistics. This index identifies and takes into account the different forms of deprivation that can be found in the three dimensions of health, education and standard of living, measuring the number of poor people and the number of deprivations affecting households. Among the results that were obtained in the 104 countries that were analysed is the fact that around 1.75 billion people, about one third of the total population, live in multidimensional poverty. And as we can see the concentration is based in regions like Africa, Asia and South America.

Figure 18 - Multidimensional Poverty Index
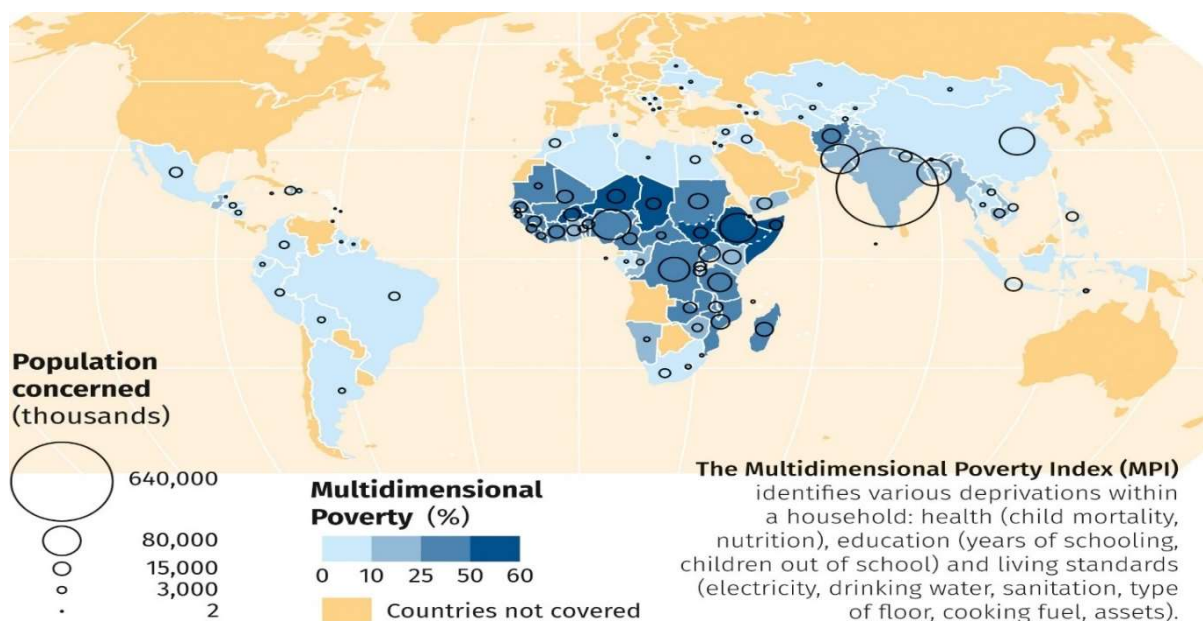
Source: S. Alkire and U. Kanagaratnam, "Multidimensional Poverty Index-Winter 2017-2018: Brief Methodological Note and Results", Oxford Poverty and Human Development Initiative, University of Oxford, "OPHI Methodological Notes 45", 2018.

2.3.2 Gross National Happiness Index: The Case of Buthan

Buthan is a small state in Asia, with a population of about 740,000, located in the Himalayas. It is in this small mountainous state that the first happiness ecovillage was established in 2012.

It is the first country in which the well-being of the population is not measured using GDP, but rather through the Gross National Happiness Index (GNHI). As a media and communication director of the Bhutan Studies centre[26], puts it: "Happiness is a measure that is usually linked to the individual person, an individual value that makes us say what makes us happy and what does not. We are a small country, in the Himalayas, and we have created the concept of gross national happiness, which does not replace GDP, but complements it with a new perception, through 33 indicators and 124 variables. In practice, according to our concept, development should promote collective happiness. Happiness is multidimensional and is based on the principle of interdependence. The objective is to seek a balance between the cultural, spiritual, and economic needs of the Bhutanese citizens. The GDP concept is somewhat fallacious because it fails to include concepts such as happiness, which must be considered a public good. In Bhutan we have developed four pillars: eco-sustainable economic development, preservation and promotion of culture, the conservation of the environment, and a good governance of the country".

In order to measure the well-being of the population therefore, as stated by Phuntsho Rapten, four main criteria are used: the protection and preservation of the environment, the safeguarding and promotion of culture, good governance and finally sustainable economic development that includes education, social services, and infrastructure, so that every citizen can enjoy the same benefits.

Based on Buthan's strong experience with the Gross National Happiness, the first World Happiness Report was published in 2012 during a United Nations congress on happiness and well-being. This report analyses in detail global happiness data obtained by interviewing various people in various countries, which are asked to give an overall assessment of their lives, on a scale of 1 to 10. The ranking is obtained using the appropriate

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[26] Kinga, Sonam, Karma Galay, Phuntsho Rapten and Adam Pain (eds), *Gross National Happiness*, Thimphu: The Centre for Bhutan Studies, 1999.

reference indicator, linked, as mentioned, to the GNH: the Happiness Index. The parameters which are taken into consideration are numerous and on which there is now a tendency to converge, as we have already seen in this work: economic condition, health, social relations, freedom security, positive and negative emotions, corruption, and generosity. There are currently 153 countries using this index.

The report also shows, if one may say so, the 'side effects of happiness' that reflect the positive environment in which they are to be found: people live longer, are more productive, earn more, and are also better citizens. This is why, the report goes on to say, well-being should be pursued not only for its own sake, but for the effects it has on society.

One aspect that would certainly lead to a refinement of the data collection process is to understand what happiness is really influenced by. According to some scholars, one of the main aspects through which it is possible to determine whether a person is happy or not is mental health, although in the writer's opinion it is not the only one: there are an infinite number of subjective, as well as objective parameters through which such a measurement can be made, to name but a few: family serenity, job satisfaction, the right balance between work and leisure.

In taking note of this position, the search for parameters is to be included in a much. broader discourse relating to the complexity of our time.

We live in an age of extreme contradictions. On the one hand, the world follows technologies of unimaginable sophistication, on the other hand at least one billion people do not have enough food to eat every day. The world of economics is increasingly being driven towards new levels of productivity, by means of technology, which in an irreversible process, leads to the depletion of nature and its mechanisms of reproduction and regeneration. The various countries have achieved or are achieving good progress in economic development, as shown by conventional measures, but at the same time they are going down paths that have led to crises concerning obesity, smoking, diabetes, depression, and many other diseases that are closely linked to modern life.

In a nutshell, this is the great contradiction of our times: the world should increase GDP to the point where this leads to the disfigurement of the environment, even when such increases lead to almost no increase in people's happiness? Governments should invest on

advertising to 'help' both individuals and families to better understand their own motivations, desires and needs as consumers?

Should we prefer the spirit of conservation, trust, and community rather than grafting our existence on exclusive profit-driven yearnings?

There is enough evidence to believe that we need to rethink economic resources that are linked to prosperity, much more so in rich countries than in poor ones. Countries with a high income have managed to eradicate poverty almost completely, hunger and many diseases. Poor countries are trying to pursue the same goals but with the defeat of poverty, what comes next? What are the paths to follow in order to achieve prosperity when the basic economic needs will be met? What or who will lead humanity towards a sustainable future: advertising, sustainability, communication or what else?

Figure 17 - Ranking of Happiness based on a three-year-average 2019-2021
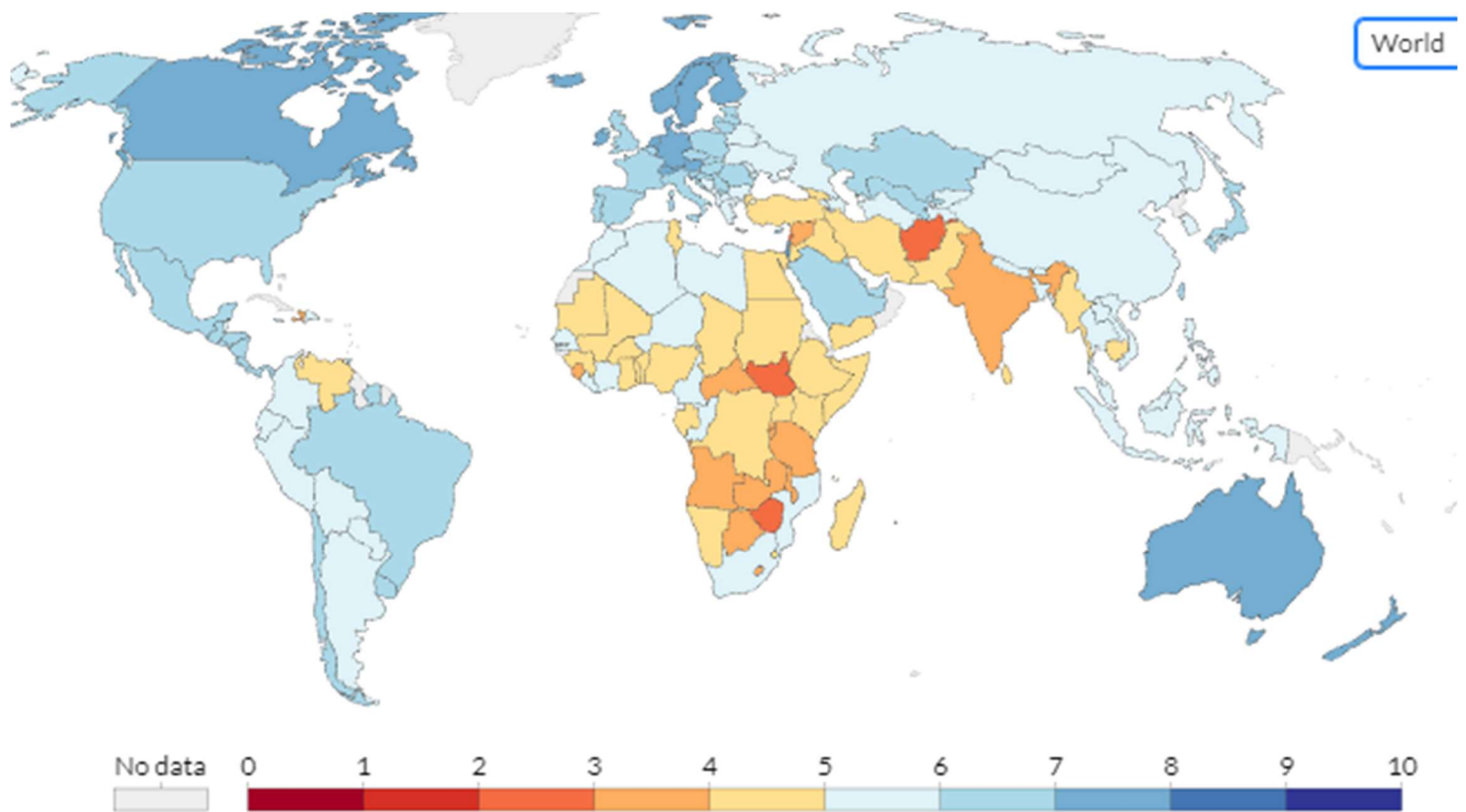
Source: World Happiness Report 2022.

We learn from the World Happiness Report 2022 that happiness differs systematically across societies and time horizons, for reasons that can be identified and even altered through the way public policies are planned and implemented.

In other words, it makes sense to pursue policies that increase public happiness, just as it makes sense to pursue policies to increase national public income.

Figure 20 shows the Happiness Index values based on a twenty-year series (2003-2020). Nordic countries[27] always appear to rank higher than European nations; Finland ranking first (7.821), while Italy ranks 31st with a score of 6.467.

Figure 20 – Happiness Ranking from year 2003 to 2020
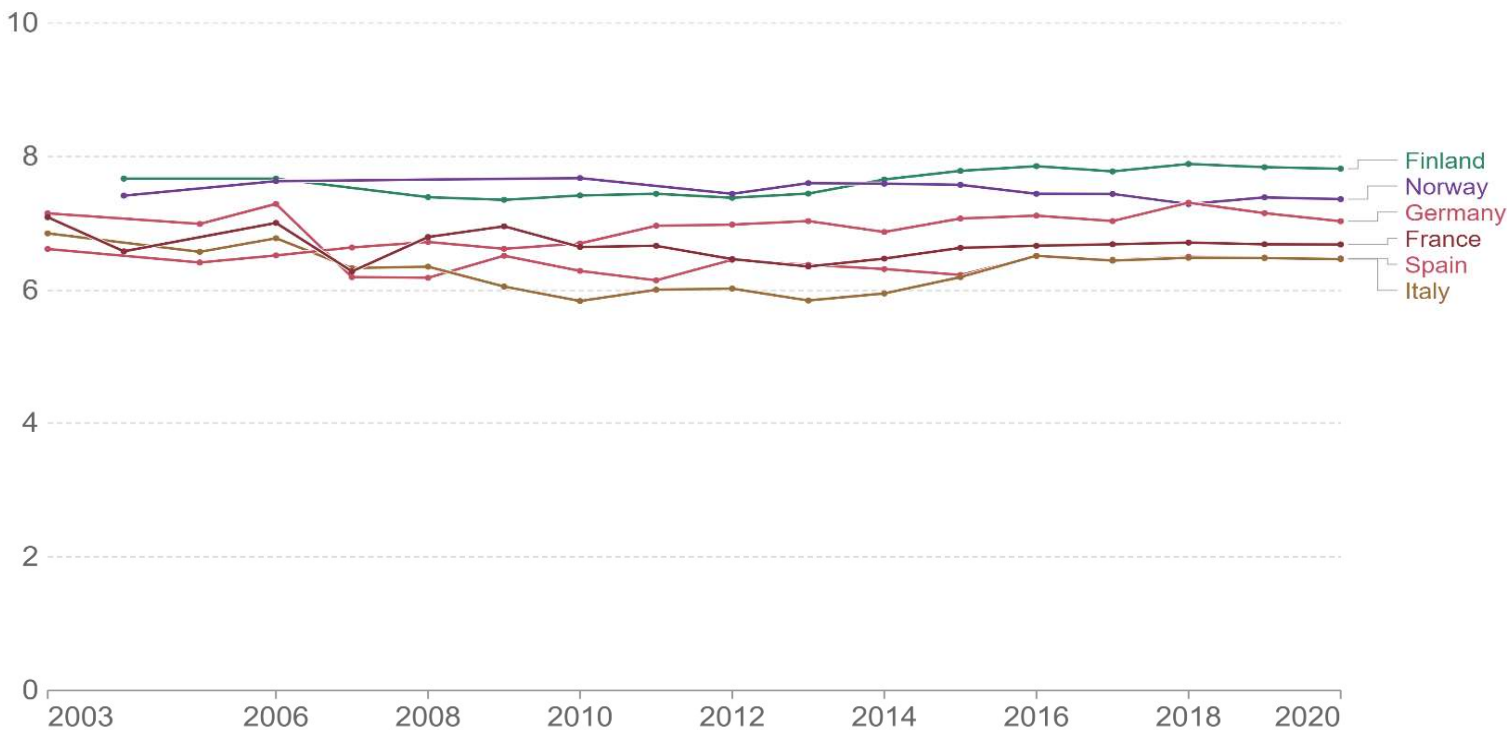
Source: World Happiness Report 2022.

Again, as the Human Development Index, if we compare it with the Figure 11 - GDP per capita of Italy, Germany, France, and Spain over the last 20 years - we can notice multiple differences. Especially with regard to Spain and Italy, where in the early 2000s, despite the Italian GDP remaining higher than that of Spain, the latter has recorded levels of happiness significantly higher than that of Italy. There was, however, a significant levelling of the two

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[27] Hunter, Marnie (18 March 2022). *"The world's happiest countries for 2022"*. CNN. Retrieved 18 March 2022.

curves since the year 2015, in which both countries scored very similar indexes. In 2020 the difference in score was only around 0.010(6.476 for Spain and 6.467 for Italy).

As far as France and Germany are concerned, on the other hand, there are no notable differences between the values of the GDP and Happiness Index values.

It's important to point out the difficulty within which the reasoning is conducted, leading to a plurality of data whose interpretation does not always appear homogeneous and whose results are not always consistent with expectations. It has been said that the measurement of quantities that are not always objective, but rather are inextricably dependent on subjective evaluations, is ultimately complex.

2.3.3 Better Life Index

The OECD, Organisation for Economic Cooperation and Development, has also been working for over a decade on issues of well-being, trying to find an additional measure that can complement the data provided by Gross Domestic Product. In 2011, the organisation launched the Better Life Initiative, an initiative aimed primarily at providing statistics to measure the aspects of life that matter most to citizens. This initiative gives birth to two main elements: the *How's life* report[28] and the *Better Life Index.* (OECD)

To define this index, the OECD draws particular inspiration from the Stiglitz Report, mentioned before. As stated on the organisation's website: "The purpose of this index is to involve citizens in the debate and to give them the means to be more informed and participate in decisions that affect the lives of all of us". The Better Life Index is an interactive web tool, an online platform, which is also created for this purpose. A curiosity that goes beyond the aesthetic aspect is the logo that represents the index: a flower consisting of 11 petals with different colours; each petal representing one of the eleven themes that are proposed and analysed by the index. The idea of the petal recalls a concept of equality for the various factors that compose it, so each contributes, with equal weight, to the measurement of the collective well-being. collective. In order to make a complete assessment of each topic, specific indicators are used, which can take on values ranging from one to four.

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[28] OECD, *How's Life? 2020*: Measuring Well-being, OECD Publishing, Paris, 2020.

The Better Life index is calculated for all 38 countries that are members of the OECD, the Russian Federation, South Africa and Brazil. In the future, the index will also be used to analyse data on China, India, and Indonesia. The data is updated on an annual basis and is available online in English, French, German, Portuguese, Russian, Spanish and, from 2015, also in Italian.

Let us have a more detailed look at some of the topics that are proposed by the index, which in the writer's opinion are the most important ones, creating the index by way of example and to enhance its simplicity and effectiveness, through the on-line platform of the Better Life Index.

Figure 21 – Writer's Better Life Index

Source: OECD Better Life Index

Let us analyse some data and try to make a few considerations. As far as the environment is concerned, the quality of it affects our health and our lives in a direct, as well as indirectly (OECD): a healthy environment can contribute to improving our mental wellbeing, decreasing stress levels and may also encourage physical activity. Two indicators are considered for this topic: air pollution and water quality.

A further relevant concept is life-satisfaction, where the only indicator used is satisfaction with one's own life (OECD). It is a particularly subjective indicator and measures the opinion individuals have of their own life, on a scale of 1 to 10. The average level expressed by people in OECD countries is 6.7.

Having a job entails not only having advantages from an economic point of view, but also allows one to keep one's social relations alive, thus keeping in touch with the rest of the society. According to statistics, in countries where there is a high employment rate, there is also more wealth. In OECD countries, around 66% of the population of working age has a well-paid job (OECD). Four indicators are used to assess employment: the employment rate, long-term unemployment rate, personal earnings and finally labour market security.

Education also plays a key role in assessing an individual's quality of life. Through teaching, it is possible to transmit the knowledge, qualifications and skills that each individual needs in order to be able to participate actively in social and economic life.

Statistics and various studies that have been done in this area have shown that those who are better educated live longer and participate more actively in the political and community in which they live, commit less crime and are less dependent on social benefits (OECD). The parameters that are used are: years of education, educational attainment and the skills of the students. On average in OECD countries, 79% of adults aged between 25 and 64 years of age, have completed upper secondary education.

The balance between work and life has always been a crucial aspect in human history, starting from the beginning of the industrial revolutions in which workers were forced into gruelling working days that could last up to 16 hours. Finding the right balance between work and life is the challenge that awaits all workers and also has its effects on families. The ability to successfully reconcile work, family commitments and personal life is important for the well-being of all members of the household. In this case, the indicators used to measure the level of work-life balance are: employees working very long hours (>50h), and the time devoted to leisure and personal care. The percentage of employees working more than 50 hours is not very high, 10,2% among the countries belonging to the OECD.

The sense of personal safety is also an important element in assessing the well-being of individuals. This has a direct negative correlation above all with the phenomena and

episodes of crime, which can cause various problems, such as the loss of material goods but also of human lives, physical suffering, as well as stress and states of anxiety (OECD). One of the main effects of crime on wellbeing is precisely the feeling of vulnerability, i.e., feeling damaged, physically and, perhaps above all, psychologically attacked. The two parameters that are used for this type of assessment are: feeling safe walking alone at night, and homicide rates. Regarding the latter, the average homicide rate in OECD countries is 2.6 homicides per 100,000 inhabitants.

Income is also one of the key factors in determining an individual's well-being, although in my opinion it is not the most important one, despite the great importance given to it in today's society. Money is an important means to achieve high standards of living, and thus to tap into a higher level of well-being. Greater economic wealth can improve access to quality education, health care and housing. It is precisely this aspect that exalts inequality.

Not all citizens, unfortunately, can enjoy the same range of services, be they public or private. The indicators used are: the net financial wealth of households and the net adjusted disposable income of households. The data on income and wealth take into account the cost of living, as the reported values are adjusted by purchasing power parity (PPP). The PPP reflects differences in the cost of living for a comparable amount of goods and services consumed by households (OECD).

The level of health is also an important element in the assessment of well-being. Enjoying good health is one of the most important factors for a person and also brings many other benefits, such as greater access to education and the labour market, increased productivity and wealth, lower health care costs, good social relations and a longer life. (OECD) Indicators linked to the level of health are: life expectancy and perceived health status. Over the past 50 years, OECD countries have seen improvements in life expectancy levels, which now reach 81 years. Women live about six years longer than men, reaching an average age of 83, while for men it is 77.

The chart below shows the ranking, by position, of the Better Life Index. At the top of the ranking, as with the other indices analysed in this study, are Norway, Iceland and Switzerland, with a score of over eight points.

The positions of Germany, France, Spain and Italy are consistent with those of the other indices analysed, with the exception of GDP,

Figure 22 – Better Life Index by rank
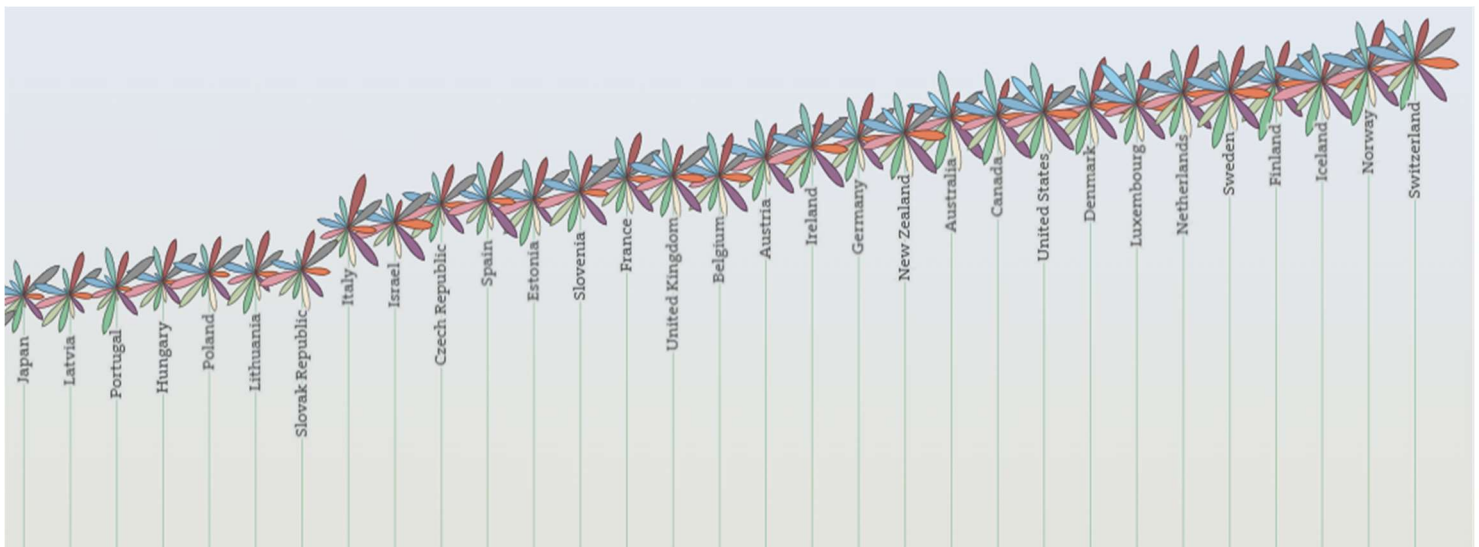
Source: OECD Better Life Index

2.3.4 Index of Sustainable Economic Welfare and the Genuine Progress Indicator

The ISEW, index of sustainable economic welfare was introduced by Herman Daly and John Cobb in 1989. It is based on two other economic indices: the MEW and EAW, respectively a measure of economic well-being and economic aspects of well-being.

The Index of Sustainable Economic Welfare (ISEW) measures the global impact of economic activities on human welfare. Rather than simply adding up all expenditures as in GDP, consumption expenditure is adjusted for other factors such as income distribution, the depletion of natural resources and economic losses due to the degradation of the environment; instead, leisure time is valued by including its economic value and an approximation of the value of unpaid domestic work. Expenditure on research and development, education and health does not contribute to the formation of the index but is an essential part of consumption.

ISEW is the sum of personal consumption, non-defence public expenditure, capital formation and domestic labour services, from which private defence expenditure, environmental degradation costs and natural capital depreciation must be subtracted.

The ISEW tends to grow over time in parallel with GDP until a certain point where it stops and begins to decline. The decreasing values of the index and its deviation from the GDP trend depend on stress factors, particularly environmental and social ones, related to

economic growth, which are identified and evaluated. This means that not all growth in the economy translates into widespread prosperity among the population, and the gap between the two curves in the figure below represents the part of growth that is not related to well-being.

Figure 23 – ISEW and GDP Trends in Italy
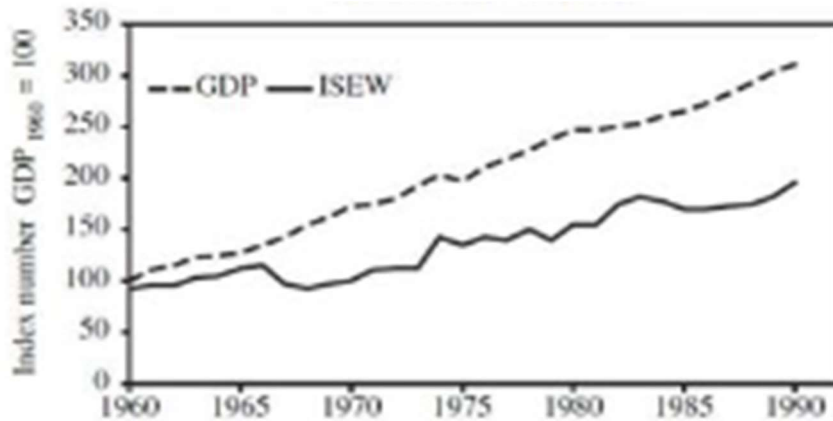
Source: Pulselli et al., 2008, The road to sustainability. WIT Press, Southampton, UK

The Genuine Progress Indicator (GPI) is the evolution of the ISEW. The GPI is obtained by subtracting all positive expenditures (such as those related to goods and services produced for people which increase their well-being) produced by the economy, from the negative ones that decrease welfare, represented for example by costs related to crime or pollution. The aim is to show whether economic progress actually generates an increase in welfare, i.e., to measure the increase in a nation's quality of life. This indicator was first used in the United States in 1990. The formula for calculating it is the sum of weighted income of private consumption, the value of welfare-generating non-market services and the increase in the stock capital, minus private defence costs and the costs of deteriorating natural resources and nature itself. If calculated as a time series, it shows how, in several countries, a level of socio-economic progress was reached that is no longer sustainable and, indeed, is often decreasing, despite the fact that the GDP of the same countries is stable or growing[29].

Finally, it should be noted that unlike more established monetary indicators, in the case of the ISEW/GPI there is a complete lack of international standards and shared statistical

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[29] Rinaldi A., Zelli R., *Misurare il benessere. La sfida degli indicatori alternativi al Pil*, 2014.

methodologies, which would certainly increase its dissemination and use as a comparable and alternative indicator to GDP.

In conclusion, it should be kept in mind that it may also be necessary not to have a single measure of social welfare, environmental impact and sustainable development. A multi-criteria analysis of multiple indicators, keeping environmental aspects separate from economic and social aspects, might better represent the actual situation.

2.4   Conclusion

In conclusion, underlying both the discussion and the profound debates that have taken place on the subject, there is a strong and now conscious need to become aware of the limits of Gross Domestic Product as a measure of a country's development and growth. As previously mentioned, GDP only takes into account, from an economic perspective, money transactions, thus neglecting free or non-remunerative transactions, therefore, not highlighting the character of the distribution of income within society. Similarly, GDP considers all transactions as positive, thus failing to distinguish which, among the counted activities, actually increase or decrease social welfare, as is the case with the aforementioned natural disasters or money laundering. From this point of view, the Gross Domestic Product limits the perception of the real dimension of well-being within a country, providing an approximate and distorted overview, due to the inability of the measure to capture its many facets. The direct result is the inability of governments to set and monitor various economic and sustainable strategies, not knowing the true extent of their impact. With this in mind, although GDP remains a symbol of economic development and growth, as well as a benchmark of primary importance in the evaluation of policies to be adopted, the need to go beyond GDP has manifested itself in numerous initiatives that, at both European and global levels, have given voice to a debate of great importance. Criticism of the Gross Domestic Product has shifted the focus away from quantitative aspects of development to elements such as equity, environmental sustainability, education, and health. It is precisely in this way that new dimensions of welfare and development have been affirmed, which have allowed the birth and succession of new indicators: the HDI, the Human Development Index, the Better Life Index proposed by the OECD, as well as the Gross National Happiness, and, lastly, the Index the Index of Sustainable Economic Welfare and the Genuine Progress Indicator.

As mentioned earlier, the term inequality refers to the difference in well-being resulting mainly from inequalities in income levels, consumption, access to health care, education, and life expectancy. The aim of the analysis of GDP and its alternative indexes as a measure of wellbeing was to show how divided is our world in terms of economic possibilities as well as happiness, gender equality, development and so on. The common results show that as far as GDP goes the United States and different European countries stand out by reaching the first positions, while Nordic countries like Norway, Finland and Sweden are far down the list. If we consider the new indicators, on the other hand, the results change considerably; USA scores decrease significantly in terms of human development and gender equality, while Nordic countries always appear at the top of the list. Other regions like Africa, some parts of Asia and South America score high in terms of multidimensional poverty, and therefore, low GDP as well as happiness and access to bare necessities. What we want to point out is that economic growth does not always translate into happiness, equality and satisfaction, but it certainly helps in the development of a society and we can see how inequality is divided in our society.

CHAPTER III

THE NEW DEVELOPMENTS

3.1 Globalization and Inequality throughout the years.

We have seen how globalisation contributes to inequalities. But to what extent? To answer we might refer to the work 'Inequality and Globalization: A Review Essay', published in 2018[30]. The article contains an interesting analysis that shows, the development of inequality within individual countries (red line in Figure 24), between countries (blue line) and globally, meaning the income inequality among all citizens of the world (green line), over the period starting from 1988 to 2012. The tool used to calculate inequality is the Theil Index that saw discussed before, which is basically the measure of the entropy of a distribution of values. The index is constructed to provide increasing values as the entropy disappears and the distribution takes on a definite characteristic.

It can be seen from Figure 24 that there is very little entropy (in this case social equality) both at the global level and in the comparison between individual countries. Apparently, inequality seems to be lower within individual states, but this should not be misleading: it is the inequality *between* countries which makes a lower disparity *within* individual states possible. In other words, if we measure social differences between countries equally, such as the United States and Vietnam, the scale effect compresses the differences within individual countries. This means that *the world is first of all globally unequal*, and then also within individual countries. This result is dramatic, because it means that the less well-off social classes in richer countries still have a standard of living unattainable even for the more privileged in poorer countries. Universal injustice is far greater than national injustice.

However, let us now consider the evolution of global inequality. After steadily increasing since the beginning of the 19th century (following the first Industrial Revolution that led to the take-off of the great economies of Western Europe) and throughout the 19th and much of the 20th century (the 'Great Divergence'), global inequality began to decline at a sustained pace from 1989 onwards, thanks to the performance of the emerging countries

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[30] Ravallion, M. (2018). *Inequality and Globalization: A Review Essay*. Journal of Economic Literature, 56(2), 620–642. https://www.jstor.org/stable/26494197

(the 'Great Convergence'). The turn of the millennium thus marks a historical reversal of world inequality (Figure 24). The gap between the growth rates of developed countries and those of developing countries, which had led to the growth in global inequality in the aftermath of the Industrial Revolution, has reversed since the last decade of the 20th century: emerging countries (especially those in Asia) are growing at higher rates than industrialised countries and this catching-up process is leading to a reduction in global inequality and inequality between countries (as it can be seen in Figure 25). Globalisation is partly responsible for the reversal of this trend: access to markets and technologies in the North has indeed played a role in accelerating the growth of emerging countries of the South.

Figure 24- Global Inequality and its Between and Within-Country Components
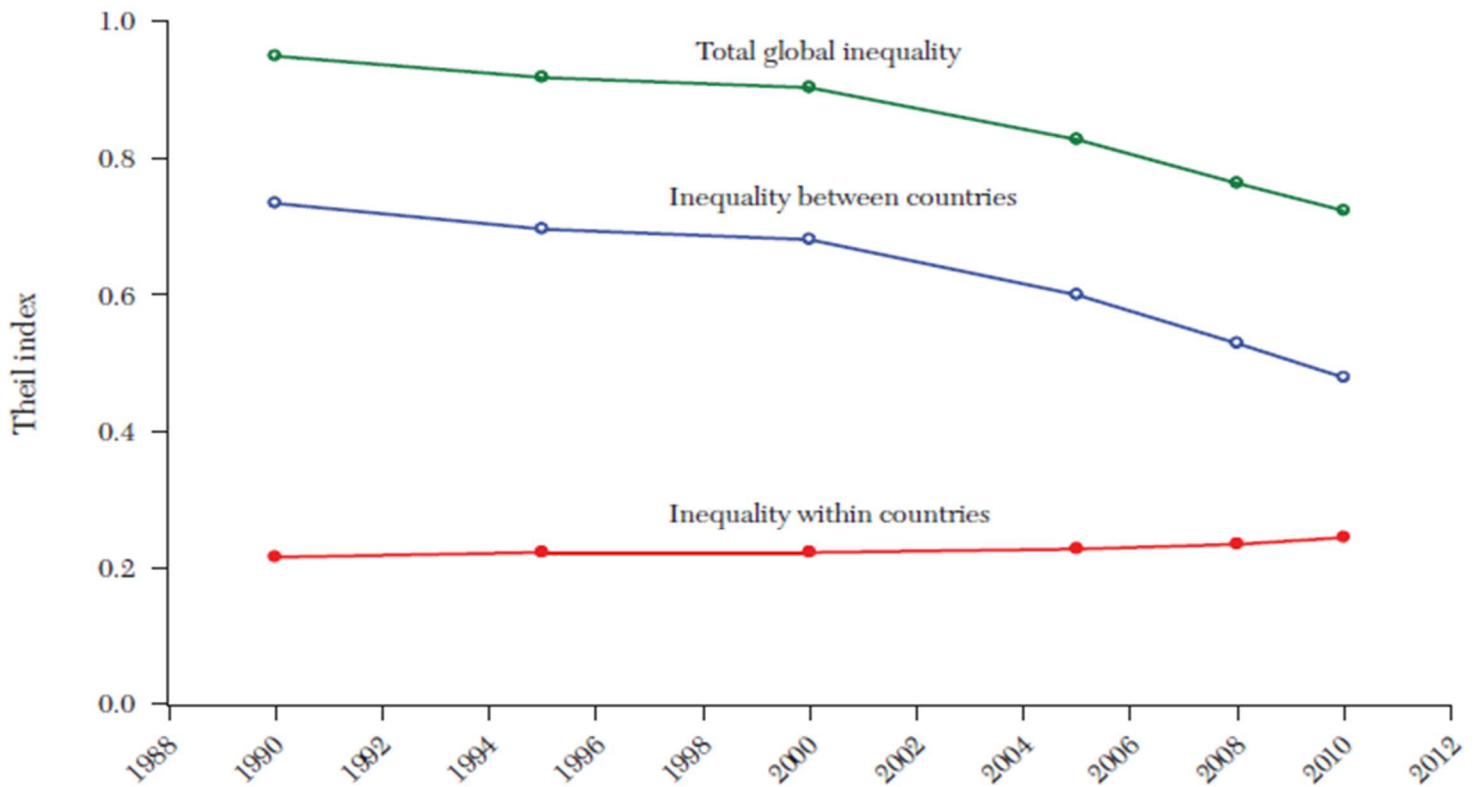
Source: Ravallion, M. (2018). *Inequality and Globalization: A Review Essay*. Journal of Economic Literature, 56(2), 620–642. https://www.jstor.org/stable/26494197

Conversely, from the 1980s onwards, average inequality within countries began, slowly but confidently, to rise after a long stationary period[31]. If one wants a more precise analysis of the distribution of wealth within individual States, the very interesting graph published in 2016 by Christoph Lakner and Branko Milanovic, later referred to as the "elephant graph "[32], which is shown in Figure 26.

Figure 25 - Evolution of World Inequality, 1820-2006 (Gini coefficient; relative gap between the richest 10% and the poorest 10%)
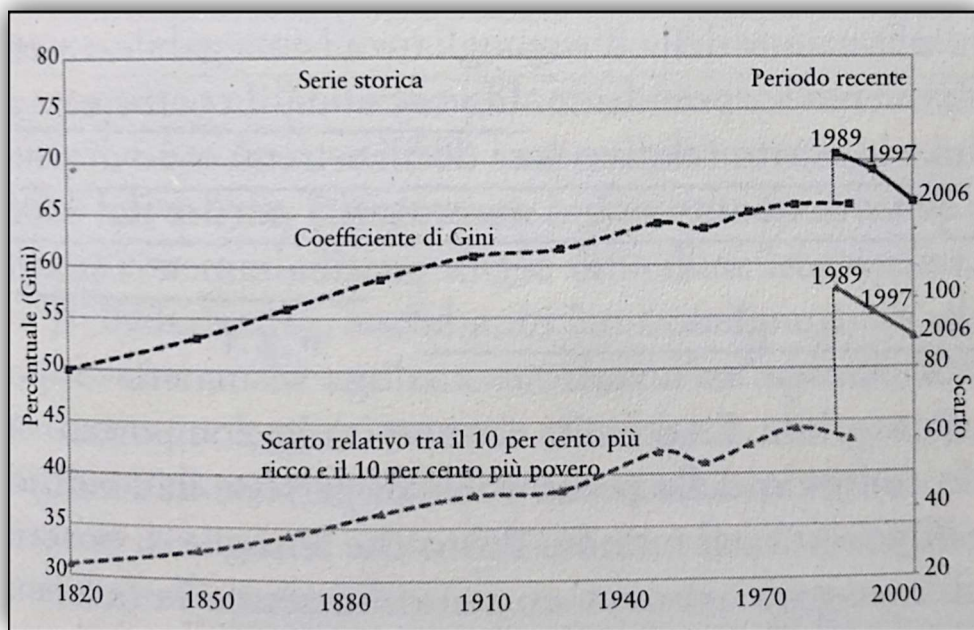
Source: Bourguignon, F. (2013). *La globalizzazione della disuguaglianza*. Codice.

Branko Milanovic, a Serbian-American economist, observed the percentage change in the real income of the world population, broken down into percentiles (from poorest to richest), over the 20-year period 1988-2008. The result is the famous elephant-shaped graph. That is, Milanovic found that there was a significant increase in real incomes in both the minor percentiles (the poorest - the back of the elephant, left-hand side of the graph) and the major percentiles (the richest - the trunk of the elephant, right-hand side of the graph); the sore point is that the middle part of the percentile distribution (the middle class - the front and the face of the elephant, the centre of the graph) has seen its real income growth plummet, or even mark a negative performance (in percentiles 75- 85).

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[31] Bourguignon, F. (2013). *La globalizzazione della disuguaglianza*. Codice.
[32] Ravallion, M. (2018). *Inequality and Globalization: A Review Essay*. Journal of Economic Literature, 56(2), 620–642. https://www.jstor.org/stable/26494197.

However, a team of economists - led by Facundo Alvaredo, Lucas Chancel, and famous inequality research trio Thomas Piketty, Emmanuel Saez, and Gabriel Zucman[33] - revealed the 2018 World Inequality Report, which extends the data to 2016. Only the graph looks pretty different. The elephant's head is substantially smaller and its trunk extends much higher in this variation. The income increase experienced by the wealthy is far higher. Although poor people in developing nations continue to thrive, their growth appears pitiful when compared to that of the top 1, at 0.1, 0.01, and even 0.001 percent. In fact, they discover that from 1980 to 2016, the worldwide top 1% enjoyed twice the growth of the bottom 50%.

Figure 26 - Percentile distribution of the change in real income (1988-2016).
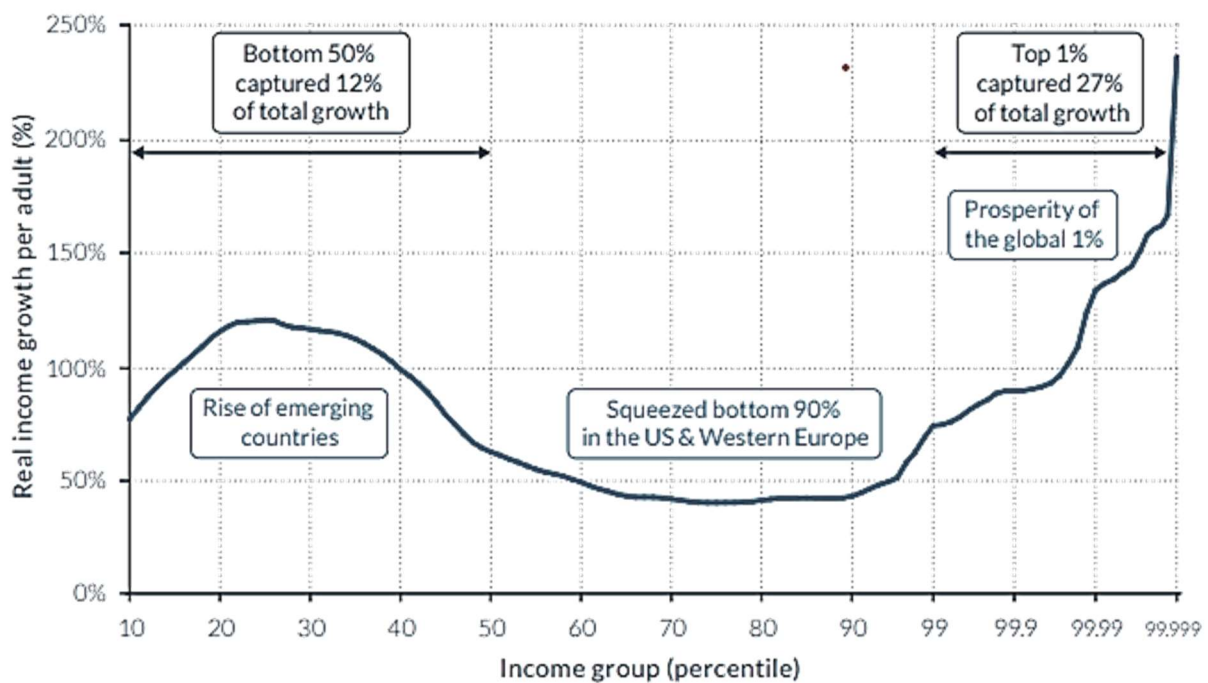
Source: F. Alvaredo, L. Chancel, T.Piketty, E.l Saez, and G. Zucman, *World Inequality Report 2018.*

This is the effect of hyper-globalisation, whose benefits - albeit in different ways and distribution - have gone to the world's poorest, many of whom have managed to free themselves from hunger, and to the richest of the planet, who have seen their wealth grow ever greater. However, it was the middle class in developed countries that paid the bill for this process, which - due to job insecurity and/or the difficulty of active professional reintegration - has seen its real income crushed, i.e., its effective purchasing power[34]. In

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[33] F. Alvaredo, L. Chancel, T.Piketty, E.l Saez, and G. Zucman, *World Inequality Report 2018.*
[34] Alvaredo, Facundo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2018. *"The Elephant Curve of Global Inequality and Growth.*" AEA Papers and Proceedings, 108: 103-08.

view of this situation, it is not surprising that precisely that middle class, which represents the largest percentage of the population in developed countries, has shown increasing discontent with the political class, demanding discontinuity in the management of the global economy. This can be clearly seen from the graph below, which summarises the data of a survey conducted by the European Union in the summer of 2022 for the Standard Eurobarometer 97. An indicative sample of citizens was asked the following question: "How would you judge the current situation in each of the following? The situation of the European economy (% - EU)". The result is clear: 51% of the population thinks that the situation of the European economy is totally bad, while only the 40% answered total good.

Figure 27 - How would you judge the current situation in each of the following?
The situation of the European economy (% - EU)

We can see that the trend actually declined since the financial crisis of 2008 where we can see that the opinions of the EU citizens were extremely bad (77% in 2011). However, we cannot consider 51% to be a satisfactory percentage as it is more than half citizens who participated in the survey.

Figure 28– Countries opinions on the situation of the European economy
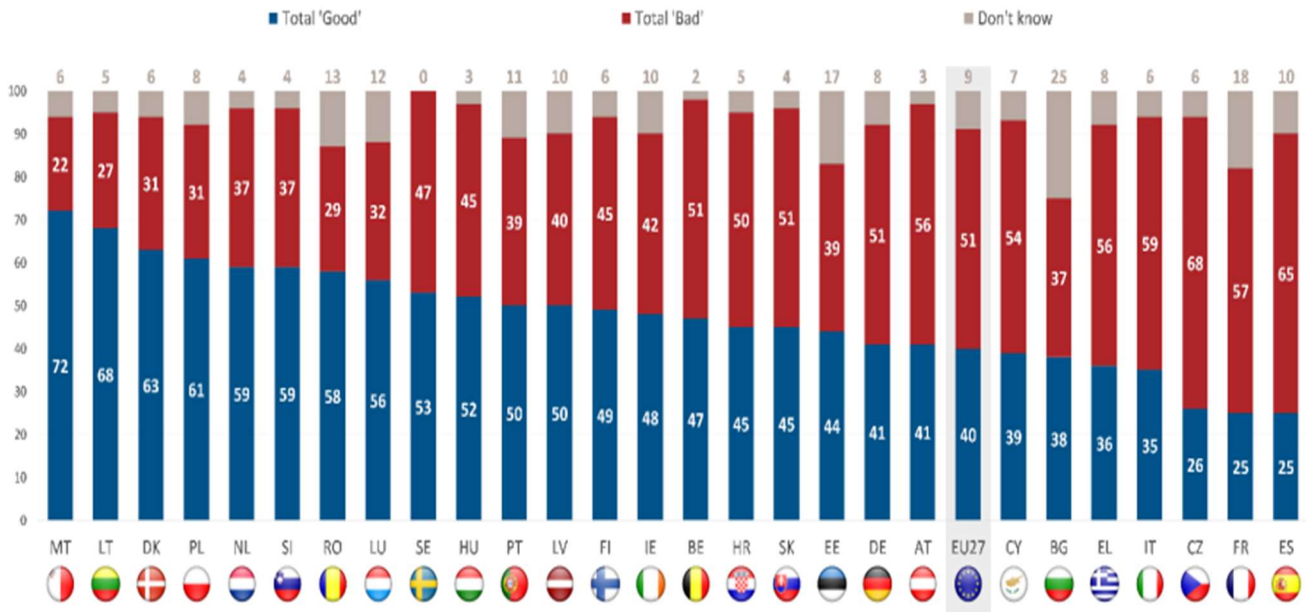
Figure 28 depicts the thoughts of the different European countries regarding the European economy: exactly half of the members have at least 50% of negative votes, with France, Spain and the Czechia having the worst opinions on the economy.

Figure 29 – Expectations for the next 12 months
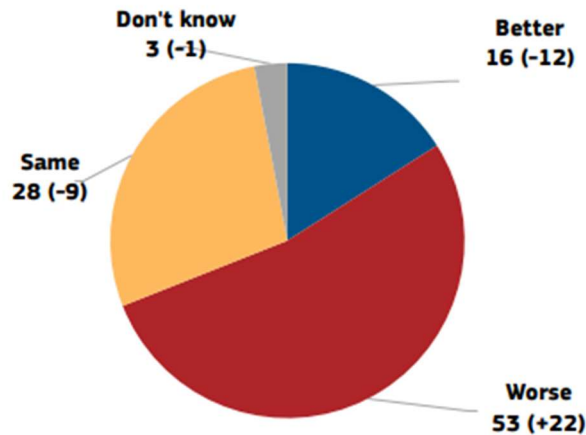
Even if we look at the future expectations, we see that a majority thinks the economic situation in their country will get worse in the next 12 months (53%), a dramatic increase (+22 percentage points) since winter 2021-2022. This is probably due to the current geopolitical situation we are facing and the concerns about COVID making a comeback.

Figure 30 - What are your expectations for the next twelve months: will the next twelve months be better, worse or the same, when it comes to...?
The economic situation in (OUR COUNTRY) (% - EU27)
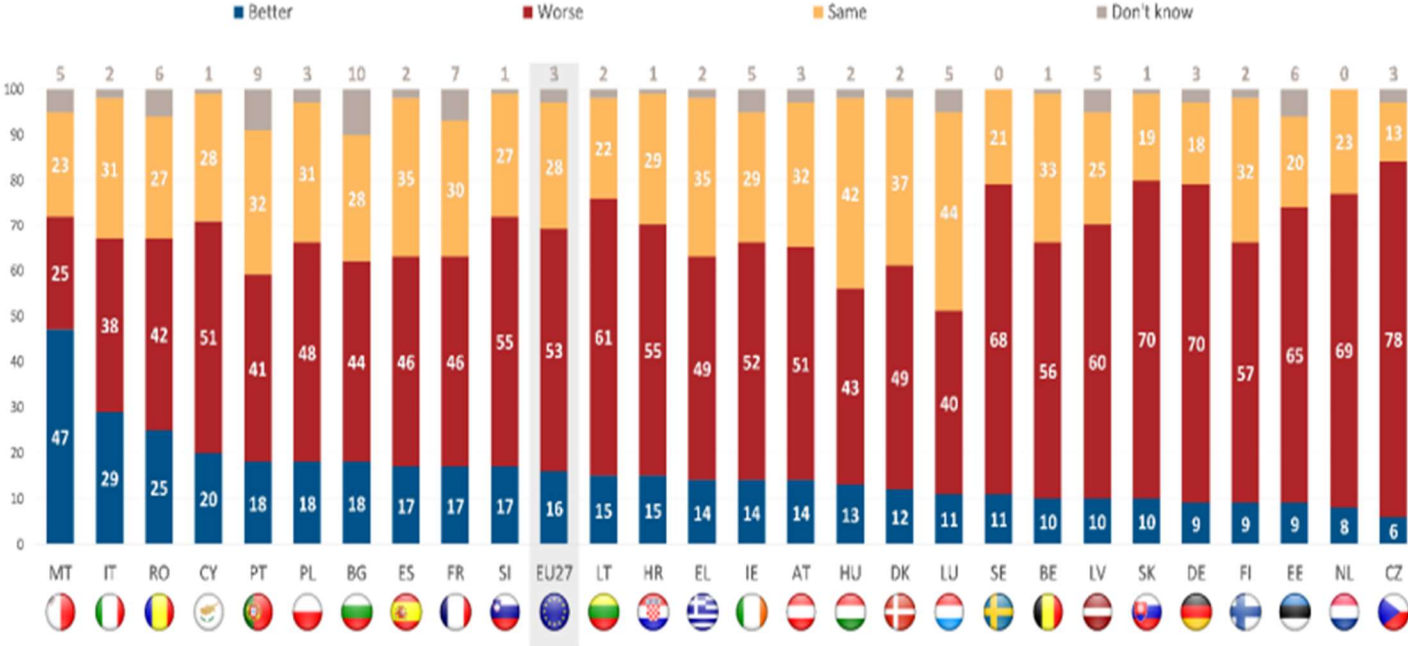
In 25 EU Member States, a majority think the economic situation in their country will get worse in the next 12 months, with the highest levels of pessimism observed in Czechia (78% "worse"), Germany, Slovakia (both 70%), the Netherlands (69%) and Sweden (68%). At least one quarter of respondents in each country think their national economic situation will get worse in the next 12 months.

Even if we must take into account the concerns about COVID and war, this is a very clear signal of rejection of hyper globalisation paradoxically not only in those countries that have suffered the most negative consequences, but also in those countries that have benefited the most from it. One could therefore consider that certain epoch-making phenomena, such as Brexit or the global affirmation of so-called populist political forces is somehow to be traced back to Milanovic's graphic elephant and a rejection of hyper globalisation.

For the moment, we must complete our study by looking at the absolute distribution of wealth, globally, by income class, a statistic which is shown in Figure 24, in which we can see that, contrary to a certain cliché, it is not so true that the rich have become even richer. Something like this indeed happened, as we have seen in Figure 24, but it cannot be said that the overall balance has shifted by much, because in Figure 31 we can see that the two

distributions, that of 1988 (in blue) and that of 2008 (in red) have remained substantially unchanged. This does not mean that during this period there were no new rich people, especially new industrial tycoons, such as the owners of the Web companies (Facebook, Amazon, Google). But globally their distribution is no different from that of the tycoons of the late 1990s. Probably the explanation for this surprising lack of change lies in the fact that globalisation has extended the business area of large corporations, but not the logic of remuneration. The capitalist system thus seems to tend to produce the same effects in different eras and in different countries. The big business leaders, the largest owners of capital, the most efficient managers continue to be the biggest beneficiaries of the wealth they produce. The lowest income earners seem to benefit somewhat from globalisation, which allows them to find employment in industries that, without globalisation, their countries would be unlikely to develop so quickly. If anything, it is the so-called "middle class" that has suffered particularly, because capital has not only been redistributed geographically, but it has also been used differently. Take, for example, e-commerce, which is marginalising from the market those traders who do not manage to adapt to it. But economic dominance was and remains with those who have access to capital more easily and to a greater extent.

Figure 31 - Lorenz Curves for Global Income 1988 and 2008
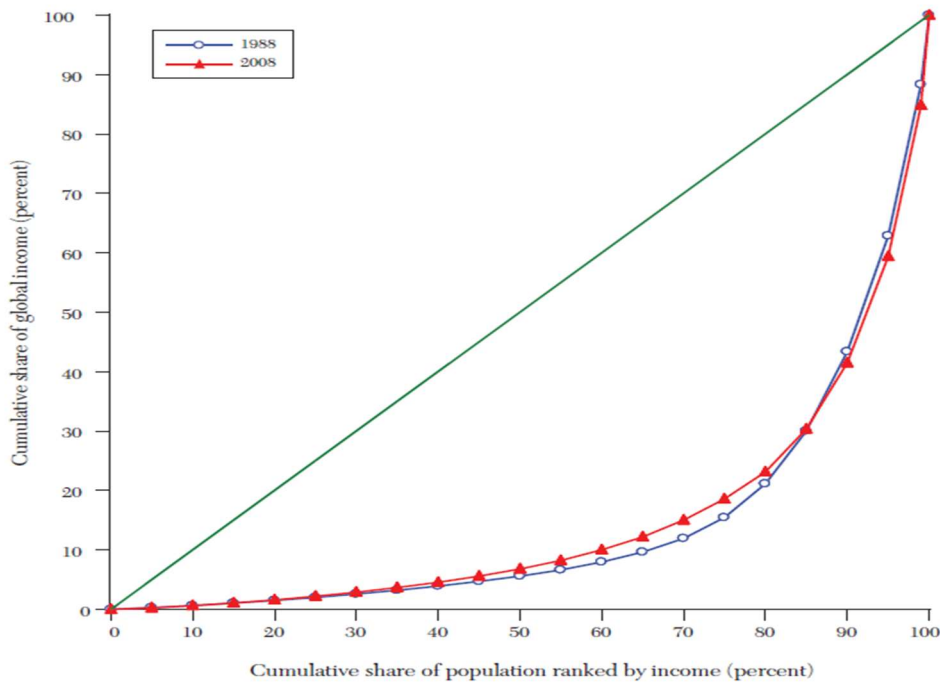
Source: Alvaredo, Facundo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2018. "*The Elephant Curve of Global Inequality and Growth*." AEA Papers and Proceedings, 108: 103-08.

3.2 Evolution of Economic Integration.

Having studied the main features of globalisation in the world and its dynamics over time, it becomes incumbent on us to analyse Italy's positioning within this global scenario. However, it must be said that most analysis, often conducted without taking into account the overall picture, tend to confuse global trends with those of our country. Certainly, Italy cannot present characteristics significantly different from those of the more industrialised countries, but nevertheless, as we will see in the course of this paragraph, our country nevertheless presents some peculiarities.

A recent study by Confindustria[35] confirms our country's strong degree of integration within the dynamics that characterise world trade. We will see that, beyond the trade balance equilibria, what integrates a modern economy into the global framework is the level and manner in which it participates in global value chains (GVCs) along both sides of the production chains, i.e., inbound and outbound. The ways of participation can be defined and measured in two ways:

1. Upstream (a monte): by calculating the value of foreign goods and services used by domestic firms and incorporated, therefore, in Italian exports;
2. Downstream (a valle): by measuring the value of Italian products which are sold to foreign companies and which are thus incorporated into the foreign trade of other countries.

The sum of these two variables, as a percentage of the value of national exports, is precisely the measure of the country's participation in the GVC.
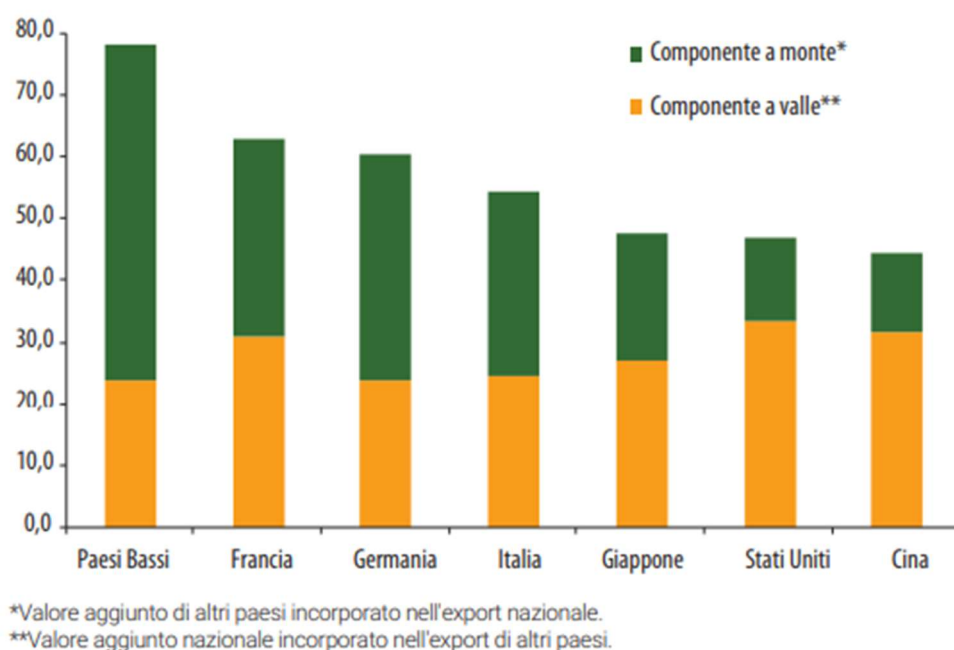
Figure 32 shows the weight of the two components in Italy and in some of the most important industrialised countries. In 2018, according to UNCTAD (the United Nations Conference on Trade and Development), the upstream component of Italian participation in the chain amounted to 30% of exports of goods and services. The downstream one was 25%. Overall, therefore, more than half of Italian exports are attributable to the global chain, a level in line with the world average. Among the main exporting countries, the degree of participation of Italy is lower than that of other European economies such as

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[35] Confindustria, *ITALIAN ECONOMIC OUTLOOK 2019-2020 AND THE GEO-ECONOMIC SCENARIOS*, 2019.

Germany, France and the Netherlands and higher, on the other hand, than that of Japan, the United States and China.

It can therefore be said that our country's competitive position is good overall, but this is not surprising, as the success of Made in Italy is well known. If anything, doubts may arise on the degree of integration, since it is well known that in our country some sectors are experiencing years of crisis, such as engineering and agriculture. Therefore, it becomes decisive to study Italy's integration in the world scenario because a good positioning would reshape the vision of a competitive Italian industrial system only partially.

Figure 32- Italian industry's participation rate in the Global Value Chain.

*Valore aggiunto di altri paesi incorporato nell'export nazionale.
**Valore aggiunto nazionale incorporato nell'export di altri paesi.

Source: Confindustria. (2019) *Dove va l'economia italiana e gli scenari di politica economica.*

The factors that determine the different degree of integration of Italy (and other countries) in the international production chains certainly depend on the structural characteristics of each economy. There are several paradigms that can offer a high degree of signalling. We list the most important ones below[36]:

- The weight of multinational industries in the economic system of each state, i.e., the propensity to relocate. Countries where the manufacturing sector has a significant weight show, on average, a higher participation in the chain, because production

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[36] Confindustria, *ITALIAN ECONOMIC OUTLOOK 2019-2020 AND THE GEO-ECONOMIC SCENARIOS*, 2019.

chains are often fragmented internationally. Thus, large companies play a major role in the international fragmentation of production. In Europe, especially Germany, which massively uses semi-finished products from other countries. It is therefore not surprising that in the German case, the upstream component, i.e., the foreign added value contained in Berlin's exports, is more significant. This component is even higher in the case of the Netherlands, which is an important maritime hub of goods that, sometimes with slight transformations, then continue their journey to their final destination. As far as Italy is concerned, the lower participation in the chain compared to the European average can be explained precisely by the reduced presence in the country of multinational manufacturers.

- The weight of the manufacturing sector, i.e., the propensity to transformation. A greater manufacturing presence tends to increase, above all, the upstream component of the participation in the value chain, because manufacturing is a transforming sector, which purchases goods and services produced by other sectors on international markets, mainly semi-finished products. Think of energy, fuels, other raw materials and services such as transport, insurance and financial services. This is particularly true for the main European countries. Italy, despite having a less integrated manufacturing sector, buys 90% of its oil and natural gas from abroad.

- The weight of the domestic market, i.e., the propensity to 'self-consumption'. Larger countries such as the United States and China, tend to have a less intense participation in the chain and concentrated downstream, namely, as suppliers of intermediate goods and services, compared to the case of smaller economies. These are countries that claim a huge domestic market, capable of absorbing a large portion of domestic production. In the case of the United States, moreover, it is low and decreasing the energy dependence from foreign countries.

- The weight of individual production stages, i.e., positioning within the value chain. Countries specialising in business services (transport, finance, insurance, information technology, etc.), such as the United States, the United Kingdom and also France, in addition to those oil suppliers, such as Russia and the Arab countries, show a greater orientation downstream, because their services add value to the products of other economies, thus constituting an important part of their import-export.

The graph in Figure 33 shows the dynamics of participation in the production chains of Italy and the main world countries over the last decade.

Figure 33 - GVC Participation Index, as a percentage of national exports
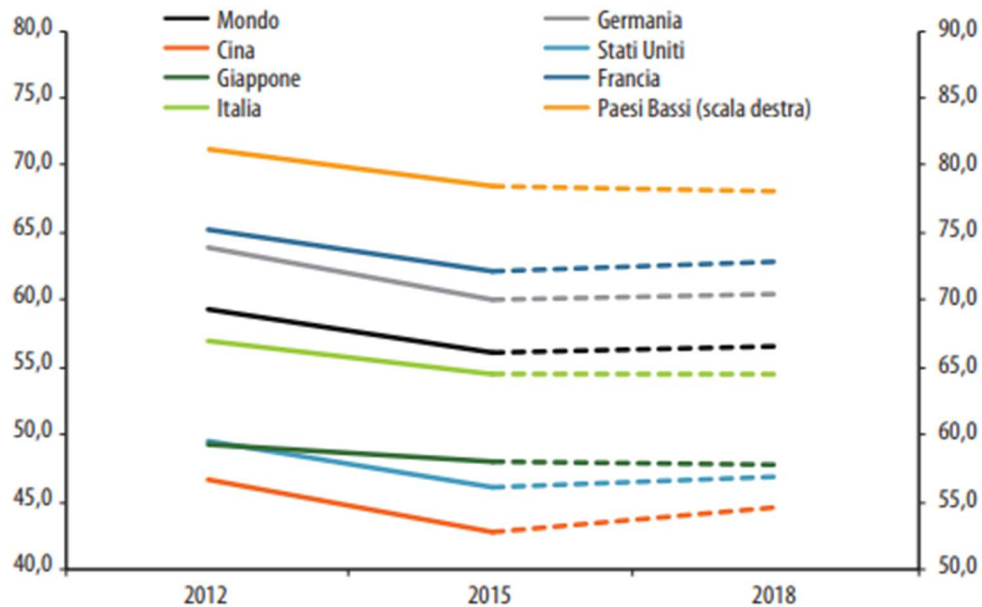
Source: Confindustria. (2019) *Dove va l'economia italiana e gli scenari di politica economica.*

The participation of various countries in the chain dropped sharply in 2009 with the global trade crisis[37]. This is not surprising, since one of the consequences of a global recession is precisely the contraction of international trade. It increased in the following three years, returning close to pre-crisis levels. Between 2012 and 2015 it fell back again, and finally seems to have stabilised in the last five years.

Italy's share in the chain has also changed pretty much in the same manner: it fell from 58% of exports in 2008 to 57% in 2012 and 55% in 2015 and 2018. The decline depends, above all, on a lower share of domestic value added contained in exports from other countries. The lower value of the participation index in recent years may be due to the weakness in the prices of oil, other commodities (including agricultural and forestry products) and various semi-finished products purchased by companies (fuels and some food and beverages). This would seem to signal a possible weakening of the Italian industry's specialisation as a supplier of intermediate goods, a circumstance that, however, also characterises the Dutch economy, which has enjoyed a significantly higher growth phase

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[37] Confindustria. (2019) *Dove va l'economia italiana e gli scenari di politica economica.*

than the Italian one. Perhaps the explanation also lies in the loss of momentum of some important economies dependent on Italian production (think of the German automotive sector), as well as the delocalisation that affected our country more sensitively than others, due to Italy's lack of competitiveness on labour flexibility, corporate taxation and telematic networks.

In order to assess the integration of Italian industry within the Global Chain Value, it is useful to focus the analysis on a subset of intermediate goods that includes the most significant products of international manufacturing supply chains: parts and components of capital goods and means of transport and other semi-finished industrial supplies, such as textiles, chemicals, pharmaceuticals and metals, whose relative stability of prices is also very useful for making comparisons.

The dynamics of foreign trade in these products, therefore, offers a more accurate reading of the evolution of the participation and position of the sector within the value chain compared to the other main world countries (Figure 34).

A comparison between the various countries shows that:

1) Among the main European exporters, the participation of the Italian industry in the chain for these commodity areas is high (lower only than that of Germany) and substantially constant over the last four years. The weight of these goods on the total Italian trade is about 43% in 2018, as in 2014 and 2008, before the crisis. In Germany, however, the index rises to over 46% in 2018, from 45% in 2014. In France and Spain, it remains steadily at lower levels.

2) The Italian industry enjoys an excellent position as a supplier of components and semi-finished products abroad, as evidenced by the net balance of exchanges of semi-finished products, which grew by an impressive 2.8% of total foreign trade in 2018. Only Germany did better, with +5.1%[38]. The problem, if anything, is that in all major European countries the index shows a decreasing trend over the last five years (note that the right-hand scale is calibrated to lower values than the left-hand scale). This decrease is caused by a greater penetration of non-European products upstream of the European supply chains (especially in Spain), but also by a lower

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[38] Confindustria. (2019) *Dove va l'economia italiana e gli scenari di politica economica.*

weight of non-EU destinations for European semi-finished products (especially Italian ones).

Figure 34 - Weight of semi-finished products in the Italian trade and main European countries
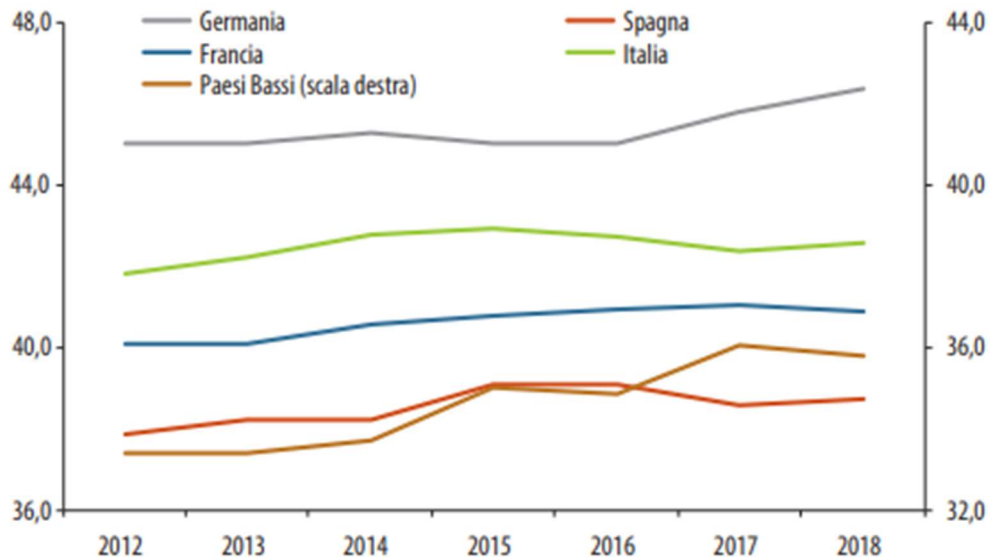
However, it must be said that this is a short-term analysis, because it was conducted over a time horizon too limited to be able to fully assess the main product-organisation changes that have characterised the industrial system in recent years.

Figure 35 - Weight of semi-finished products in the trade of the main non-European countries
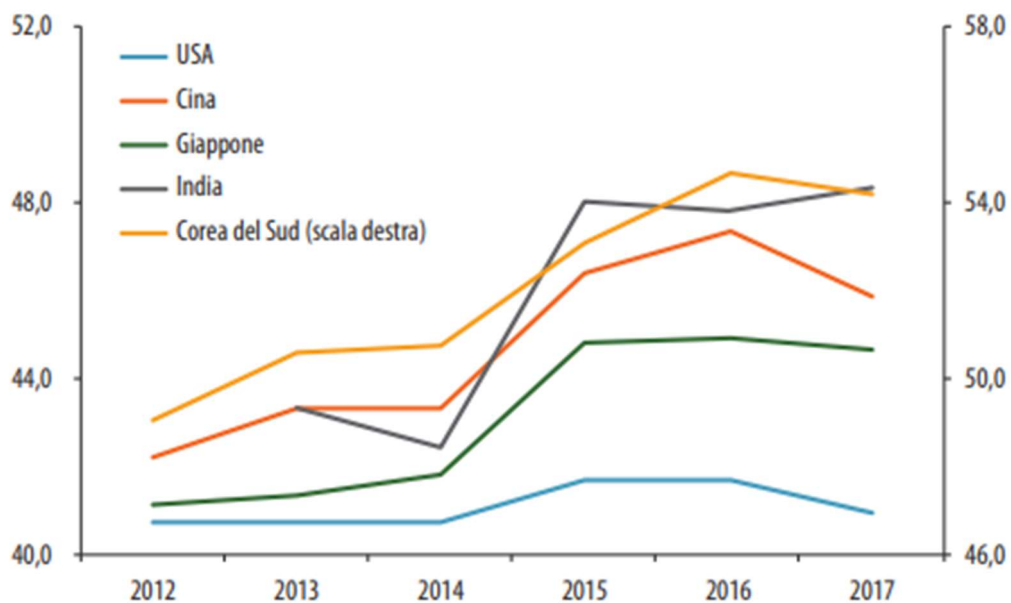
With regard to the main non-European countries (Figure 35), the weight of trade in semi-finished products remained constant in the United States (around 41% in 2017, the latest year for which World Bank data is available), while in Asian countries it grew significantly until 2015, then stabilised. This seems to indicate a regionalisation (and thus a shortening) of the value chain and, in particular, a strengthening of manufacturing integration in Asia.

As we mentioned above, the US industry is positioned much further down the supply chains (with the trade balance of semi-finished products dropping by 4 percentage points in five years). In Asian countries, on the other hand, specialisation at different points of the production chains has increased: upstream for South Korea (+15% in 2017) and Japan (+11%) and downstream for India (-11%). China's position, on the other hand, is intermediate (+2%) and has changed little over time[39].

In the coming years, the evolution of value chains could be strongly affected by protectionist tensions in international markets. Indeed, the new tariffs introduced in 2018 by the US on almost 13% of US imports mostly concern intermediate goods (60% of the total). US tariffs and other countries' retaliation make, therefore, more uncertain and costly the international fragmentation of production, leading to possible distortions and destruction of GVCs.

This could accelerate the process of regionalisation of supply chains, bringing production processes closer to final demand, especially in the more dynamic Asian economies. Consider, for example, the automotive market, where one third of global demand is concentrated in China; many European cars destined for the Asian market, which today are produced in the US, could be manufactured directly in Asia, since almost one third of world demand is concentrated in China.

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[39] Confindustria. (2019) *Dove va l'economia italiana e gli scenari di politica economica.*

3.3 Evolution of Income Inequality.

Previously, we introduced the discussion on how globalisation affects income distribution. We have seen that in history it has been responsible not only for the impoverishment of certain social classes, but even for the devastation of entire sectors. In the previous paragraph we noted how well integrated the Italian industry is within the Global Value Chain. We must now carry out the same analysis on the distribution of income in our country.

Recent World Bank data shows that inequality in income distribution, measured by the Gini index, as shown graphically in Figure 36, has decreased during the crisis, but only slightly, returning to the levels of about 15 years ago. The 2000s had seen a reduction in inequality, albeit marginally, but the 2008 crisis seems to have recreated the picture of the beginning of the millennium. In the last years, we can observe a growth in the index, meaning less equality, but we still have no data for the years following the beginning of the COVID pandemic.
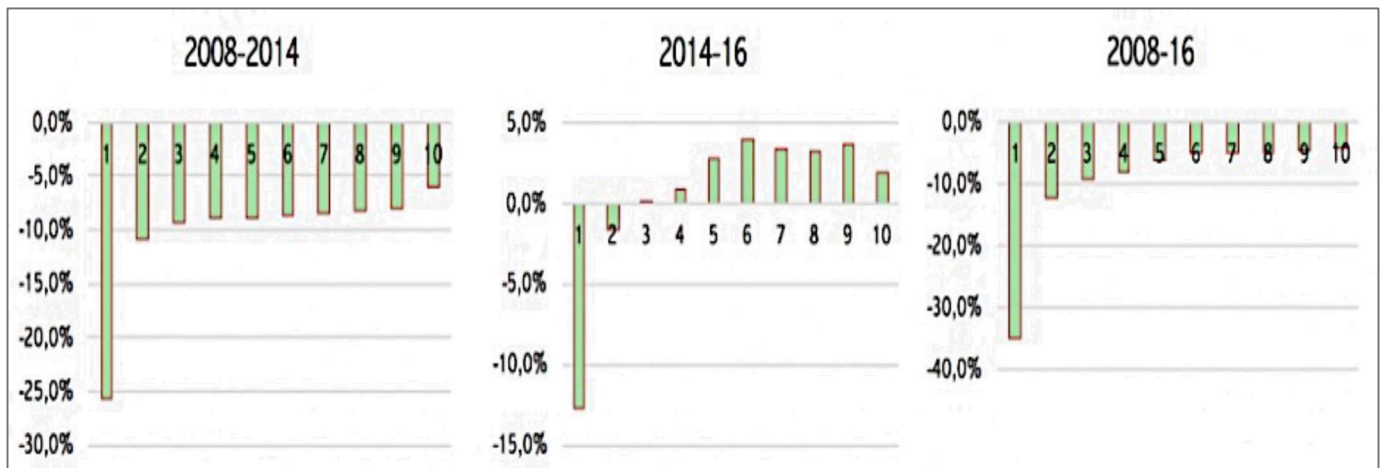
Figure 36 - Italy's Gini Index (2003-2018)
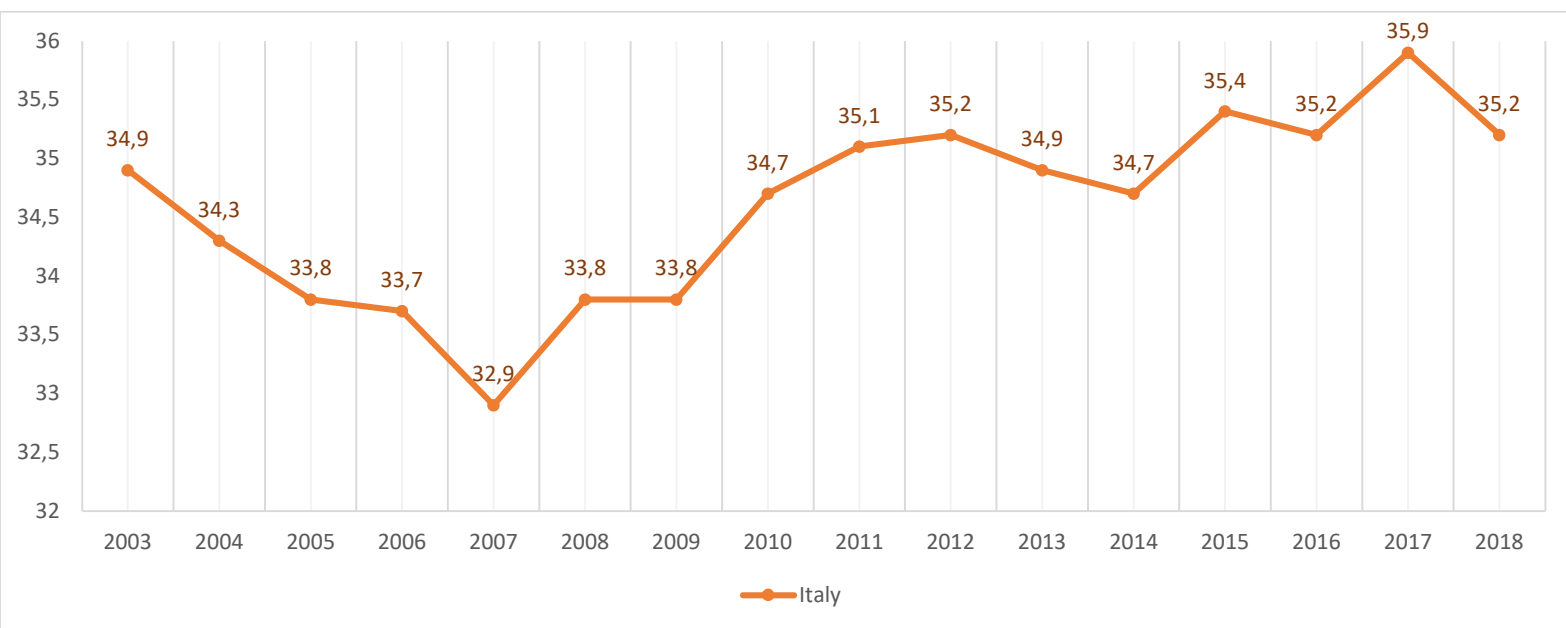
Source: World Bank Data

Intuitively, it is tempting to attribute this phenomenon to proportionately lower incomes, but only after looking at the graphs in Figure 37 can this be confirmed.

Figure 37 - Percent variation in disposable income by deciles in Italy.

Source: Eurostat

In fact, Eurostat data shows that during the economic crisis of 2008-2014 incomes of all deciles declined on average (first graph), but that the loss was dramatically higher for the lowest 10% of incomes.

Then look at the second graph, which shows the reaction of incomes to the 2014-2016 recovery. It is clear from the graph that the lowest incomes continued to decline (by more than 10%), as did those in the second decile (-2%). Incomes in the third and fourth deciles have remained essentially unchanged, while only from the fifth decile is a recovery noticeable, albeit significantly less (about half) than the loss suffered in the previous four years.

The third graph (representing the overall change in incomes over the period 2008-2016) confirms the dramatic fall in incomes in the first decile (a contraction equal to one third), significant reductions in the second and third deciles and a more moderate decrease in income for all the other segments of the Italian population.

If, therefore, our country's industrial integration in the international trade chain has withstood the crisis rather well, the same cannot be said for the level of incomes, especially the lowest ones.

Let us now look at the evolution of income inequality in the main European countries in recent years. We will only study the cases of Germany and France, again using data from Eurostat data.

Figure 38 shows how the average real disposable income of the poorest 10% of the Italian, French and German population. It can be seen from the figure, not only that in Germany and in France the top decile enjoys a higher average income than in Italy, but also confirms that the sharp and constant fall in the incomes of the poorest segment of the population is an all-Italian phenomenon.

Figure 38 - Income of the poorest 10 per cent (first decile).
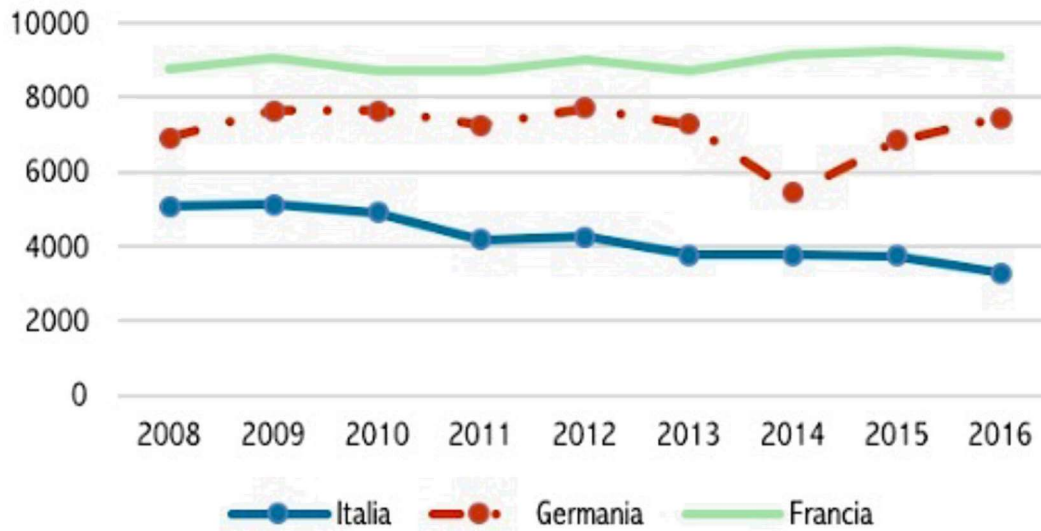
Source: Eurostat

Figure 39 concerns the middle class and displays the slow but inexorable progression of incomes of this segment of the population, once again with France presenting the best conditions. The graph also confirms what we saw at the beginning of the paragraph, namely that the middle class has been penalised by the crisis, but that its income has shown some attempts at recovery.

Figure 40 shows a more particular trend in the income development of the richest decile. In Italy, as we already know, the income of this class has decreased. In France it has resisted very well during the first years of the crisis, namely, until 2012, where it declined and, finally, showed an attempt at recovery that is common to all three countries considered. In Germany, income reached its lowest level in 2012, before embarking on a long recovery.

Figure 39 - Income of the middle class (sixth decile)
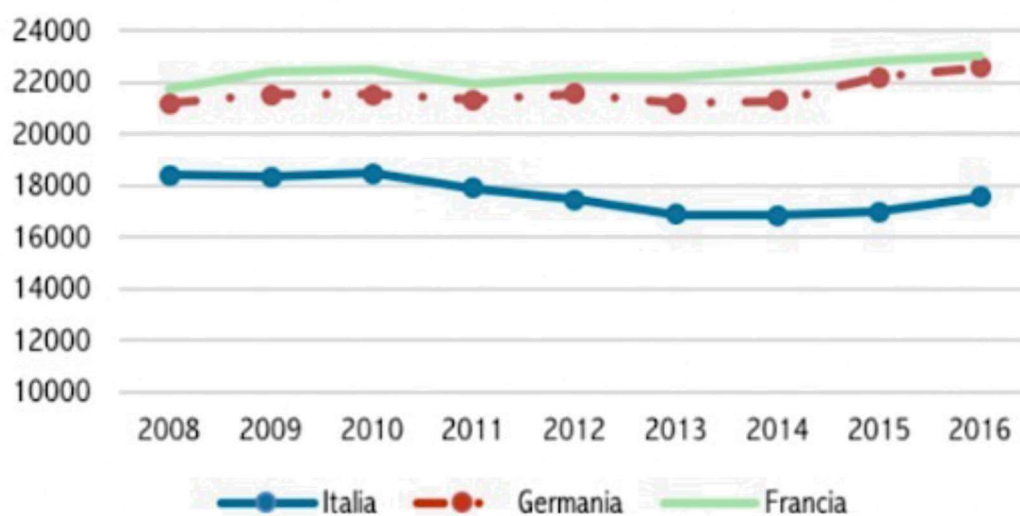
Source: Eurostat

Figure 40 – Income of the tenth decile
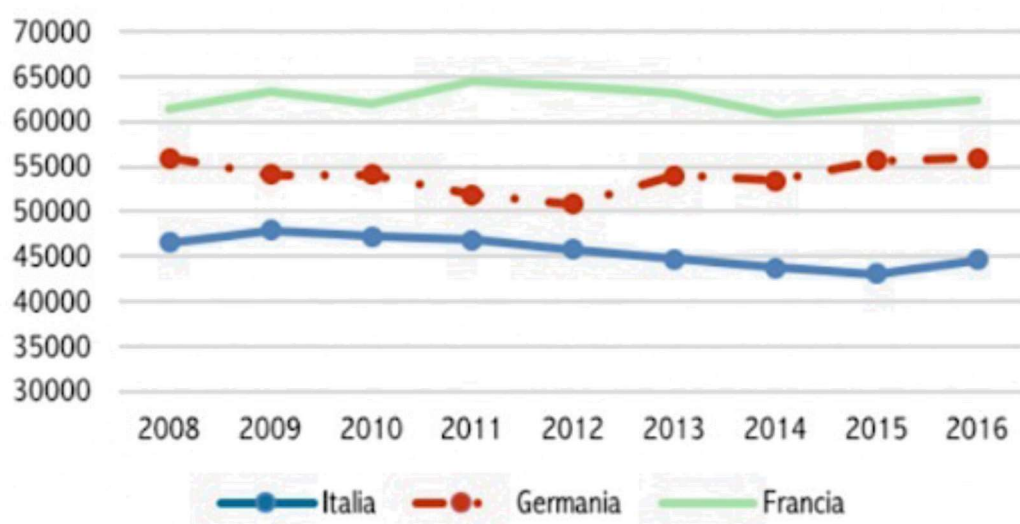
Source: Eurostat

However, recent years have seen important social changes, such as the influx of new immigrants, which should have contributed to lowering the average income of the first decile. In addition, the data do not allow us to capture the dynamics of particularly high incomes, which are hardly covered by sample surveys, which are difficult to capture in sample surveys. However, some very important trends clearly emerge:

- inequality in Italy is more or less at the same level as 15 years ago;
- it has increased slightly during the crisis;

- this growth is not due to an increase in higher incomes, but to a sharp reduction in lower incomes;
- the general recovery of incomes has not yet involved the lowest ones;

The bitter conclusion is that over the period studied, poverty increased rather than inequality. This is perfectly in line with historical teachings of the effects of more open markets, which predict, among other consequences, an increased downward pressure on lower-skilled wages. The effect of competition with Asian countries has therefore been well felt, but certainly the difficult recovery of the Italian economy, which has been less responsive than those of other European countries, has also had an impact.

Drawing an overall conclusion from the analysis of industrial integration and income distribution, the data does not suggest the existence of an 'Italian case' in general terms. In fact, Italian industry does not seem to have lost positions in terms of integration with that of other European countries. However, the national labour market has proved to be far too permeable to the wage issues prevalent on a global scale.

In conclusion, it can be said that, for now, globalisation has hit Italy with one of its most painful and most difficult effects to counteract, namely that of wages. Fortunately, 'Made in Italy' maintains its fairly prestigious position in global production chains. The hope is that this relatively strong position can be the basis for improving labour market's equity even further.

3.4 Globalization: Issues and Strategies.

Over the past years, the debate concerning globalisation and, above all, the struggle to fight its negative aspects, has been particularly lively.

Our aim at the moment is to understand how far globalisation has come, what it has produced, and what may be the most interesting and promising strategies to eradicate its adverse effects.

Now let us instead consider what has happened over the past 20 years to the countries that, according to prevailing opinions, have benefited most from the globalisation phenomenon:

a) China has seen its population growth slow down, has gradually abandoned agrarian Marxism in favour of a capitalist economic system centred on industry and international trade, and has seen its wealth increase at an astonishing rate. And for a substantial part of its GDP growth, China has the US to thank, which has become the backbone of its export-led growth strategy. Between 1978 and 2022, China's share of world GDP increased from just 4% to 16%, while its share of population decreased from 22% to around 19%. However, although according to official government statistics, China is a country with low inequality, a study by T. Piketty, Li Yang and G. Zucman[40] showed that China's extraordinary economic growth benefits have been distributed very unequally. Suffice it to say that the share of the poorest 50% in China's national income rose from 28% to 15% between 1978 and 2015, and that of the richest 10% from 26% to 41%. Thus, average per capita income, which although increased substantially in 30 years (from 150 euro in 1978 to 1000 euro per month in 2015), remains between 3.5 and 6.5 times lower than that of the G8, while the richest Chinese decile has an average income equivalent to those in Europe and North America.

Another dramatic aspect of Chinese inequality is the difference in living standards on a geographical basis. The cities are growing at an unthinkable rate for the Western world, partly because a significant portion of the locally underemployed population is being forcibly relocated to the metropolises. The standard of living of the rural population is still dramatic. Moreover, China has experienced and continues to experience emigration rates typical of a poor country rather than a

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[40] T. Piketty, Li Yang and G. Zucman *Capital Accumulation, Private Property, and Rising Inequality in China, 1978–2015,* 2019.

world superpower, which it has long since become. It is a strange and contradictory case that of China: it causes wage compression in western countries and gets rid of excess labour, thus generating an internal and external wage aggression.

Figure 41 – Income Inequality in China (1978-2015)
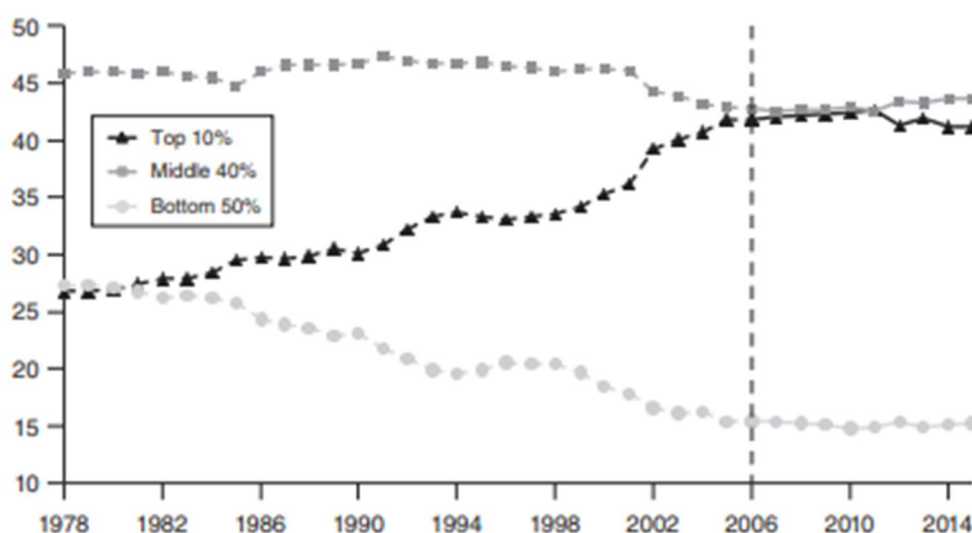
Source: T. Piketty, Li Yang and G. Zucman *Capital Accumulation, Private Property, and Rising Inequality in China, 1978–2015,* 2019.

b) India (whose population accounts for 18% of the world's) after 1991 greatly increased the capitalist share of its blend of capitalism and socialism. Unlike China, it is founded on strong democratic and electoral institutions, freedom of press and a legally constituted state. India's GDP growth has also been particularly strong over the past two decades (+7% per year on average from 1999 to 2021), although not at China's levels. However, also because of the failure to halt population growth (India's population, according to the UN, is expected to catch up with and surpass China's by 2028), not much progress has been made in the fight against poverty (at least one third of the population still lives below the poverty line: more than 400 million people). The challenges India still faces are enormous, starting with the fight against inequality. Public investment in education and health remains clearly insufficient and undermines its development model. The best example is the indigent public health system, which receives only the 0.5% of GDP, compared to almost 3% in China[41].

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[41] T. Piketty, *INDIAN INCOME INEQUALITY, 1922-2015: FROM BRITISH RAJ TO BILLIONAIRE RAJ?,* 2019.

c) Latin America has started to slow down its recovery path vis-à-vis the rich countries after the oil shocks of the 1970s. The 1980s are considered as a 'lost decade' from an economic point of view, while in the 1990s several South American countries tried to implement the *Washington Consensus[42]* of free market. The desired results were not achieved and some nations had to backtrack with respect to a pure free market economy. Other countries have instead sunk into a welfare-type economy. The world trade crisis, followed by the 2008 financial crisis, also greatly penalised the economies of several countries in the region, which have seen their exports of raw materials severely reduced.

d) The collapse of communism has left some nations, such as North Korea, in a dramatic situation of late Soviet-style poverty, while it showed others (Uzbekistan and Mongolia) that worse than the collectivist economy can only be its collapse. Many of the Eastern European countries and Russia itself lived dramatically during the early years of capitalism, and then experienced high growth rates until the outbreak of the global crisis.

e) Africa experienced a negative average annual growth rate in the quarter of the century between the first oil shock and the beginning of the new millennium. This poor performance is undoubtedly due to the high political instability in the area, which has produced more destruction than growth, even increasing poverty in some countries (especially in sub-Saharan Africa). However, the African continent has experienced solid growth since 2000 (with higher rates, equal to 4.6% on average, with respect to Latin America and the Caribbean, which stopped at 2.8%, but lower than those of Asian developing countries, at 7.2%[43]), a factor that has led to the setup of an 'emerging Africa'.

Table 12 shows the share of total growth captured by income groups of four different regions – India, China, USA, Western Europe. According to Table 12, over 35 years. In India and USA, the top 0.1 percent of incomes experienced greater total growth than the lowest 50 percent (11 percent vs. 10 percent of total growth and 17.1 percent vs. 2.9 percent). The richest 1% of earners in India, at the other end of the distribution, received as much of the

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[42] The expression 'Washington Consensus' was coined in 1989 by economist John Williamson to describe a set of ten quite specific economic policy directives that he regarded as the standard package for developing countries that found themselves in economic crisis.

[43] OECD, *Africa's Development Dynamics*, 2018.

overall growth—28%—as the poorest 83 percent of the population. It is especially significant to compare these numbers to those of China and other nations. The middle 40 percent of the population in India, out of the four, benefited the least from overall growth over the time period. However, the bottom 50 percent in both China and India took home a comparable amount of the overall growth (respectively 10 percent and 13 percent).

Table 12 – Share of Total Growth Captured by Income Groups (1980-2015)

Income Group (distribution of per-adult pre-tax national income)	India (%)	China (%)	USA (%)	Western Europe (%)
Total	100	100	100	100
Bottom 50%	10.4	13.3	2.9	17.4
Middle 40%	21.2	43.4	33.1	36.6
Next 9%	40.0	28.4	31.2	29.3
Top 1%	28.3	14.9	33.	16.8
Top 0.1%	11.3	6.8	17.1	6.5
Top 0.01%	4.8	3.5	8.5	2.8
Top 0.001%	2.0	1.5	3.9	1.3

Source: T. Piketty, *INDIAN INCOME INEQUALITY, 1922-2015: FROM BRITISH RAJ TO BILLIONAIRE RAJ?*, 2019.

The analysis just outlined has shown that the problem of industrial globalisation is complex and even contradictory to the laws of economics. If, therefore, economic science cannot but take note of the complexity of the problem, it is possible to attempt and set the points that should be part of a government's agenda, which are able to successfully tackle the problem of international trade. To do so, it is necessary to summarise the main issues and for each to establish which paths are viable and which are not[44].

Let us review them:

1) As far as sustainability of international trade is concerned (always considered in terms of economic viability), it is not in itself impossible to achieve, as long as the conditions are put in place to ensure the greatest number of sustainable companies and the best conditions for them to actually thrive in the territory of the State.

2) Externalities can be corrected, as long as countries that produce negative ones are penalised and positive internal externalities are stimulated by all means.

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[44] World Trade Organization, *WTO PUBLIC FORUM 2009. GLOBAL PROBLEMS, GLOBAL SOLUTIONS: Towards Better Global Governance*. 2009.

3) Excessive mobility of production factors can be corrected, but the manner and extent vary over time. The downward pressure on wages in sectors and production stages with lower wages can only be corrected to a limited extent by economic policies such as the reduction of the tax wedge on labour, because their success is also linked to the country's living cost; moreover, even more decisive than the average income is the purchasing power of wages, which can be a particularly problematic factor in more developed countries where the cost of living is higher than in emerging economies (regardless of the quality standards).

4) Is capital mobility an advantage or a disadvantage? The answer to this question also depends on the use that is made of that capital. Mobility that brings capital abroad, which is transformed into cheaper strategic products for those who import it, is not in itself a disadvantage. Capital mobility that hinders technological development within the country is certainly a problem that can also be addressed by measures restricting free trade.

5) Can short-term competitive advantages be corrected? Only in part and it may not lead to a long-term advantage for the countries that enjoy it. In this case policies should correct more than anything else the effects of short-term advantages, which in the long run, as it has been thoroughly demonstrated, are not themselves sustainable.

6) Does free trade have unfavourable effects on productivity growth abroad? It can produce them and in fact can also lead to sub-optimal solutions for the world industry as a whole. The only positive aspect is that productivity growth takes time and therefore provides, at least theoretically, a good timeframe in which to attempt corrective policies, which must, however, be geared towards improving the conditions that favour domestic productivity growth, rather than trying to hinder foreign productivity.

7) Are economies of scale always a value? No, especially if they are generated in a country through the tolerance of negative externalities and the development of production overcapacity, in the rush to grab as many strategic companies as possible. This in the long run becomes a disadvantage for all and tends to correct itself, i.e., tends to favour the rebalancing of the strategic advantage between countries and between companies. Beware, however, not necessarily the new equilibrium is better than the previous one, because it may be based on other opportunistic behaviour. For example, countries like Vietnam and

Malaysia could become more competitive simply because China is imposed tariffs. But would these countries really be more competitive than China in the long run?

The complexity of these points is a warning to politicians who wish to prepare agendas in a superficial manner. On the contrary, the experience of Asian countries shows that strategic industrial planning is best done by technical cabinets working independently from political executives[45]. Each must do its job in mutual trust. Politicians only have to implement what has been decided by the most competent people. This is not always possible in Western countries, by virtue of the fact that political debate uses economic arguments to try and capture consensus, whether in the direction of the free market or protectionism. One thing is certain, overly simplistic solutions, such as flat tariffs on entire commodity groups of imported goods, are unlikely to work, because they risk causing higher costs where instead lower prices of imported goods can contribute to the efficiency of domestic industry, just as they can cause retaliation that reduces the efficiency of foreign industries and, in turn, that of domestic companies.

But, even when they work, duties are still a form of indirect taxation on domestic purchases and can therefore benefit some sectors and disadvantage others.

Let us see how this can happen. Different sectors and individual companies have different sensitivities to the advantages and disadvantages (duties and barriers) of international trade. For example, a 30 per cent tariff on imported goods may not be sufficient to reduce the labour cost gap, additionally the country suffering it may not necessarily act on it. It might, for example, increase externalities, namely. it might choose to counter the tariffs by focusing on energy sources that pollute more but cost less. The bulk of the uncertainty in the results obtained comes from the structure of industrial efficiencies themselves, and here we can appeal to the classical model of the efficiency of production, with its "L" curve, as shown in Figure 42.

Efficiency is decreasing, because fixed costs are best reduced when the quantities produced are relatively high, thus typically during the "advanced stages" of production, and low output volumes, typical of the 'early stages' of product life poorly bear fixed costs. Therefore, even a limited increase in output brings great benefits in terms of greater redistribution of fixed costs. When, on the other hand, production volumes are very high,

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[45] World Trade Organization, *op. cit.*

fixed costs are now so widely distributed that their marginal redistribution is rather limited.

Let us now imagine the impact of tariffs that are applied to industries that are in different sections of this curve. Affecting firms that are in the early stages of absorbing fixed costs, relatively small tariffs can produce serious damage to that industry, because a small reduction in quantities produced can be enough to move those companies from profit to loss.

Figure 42 – Average Fixed Cost.
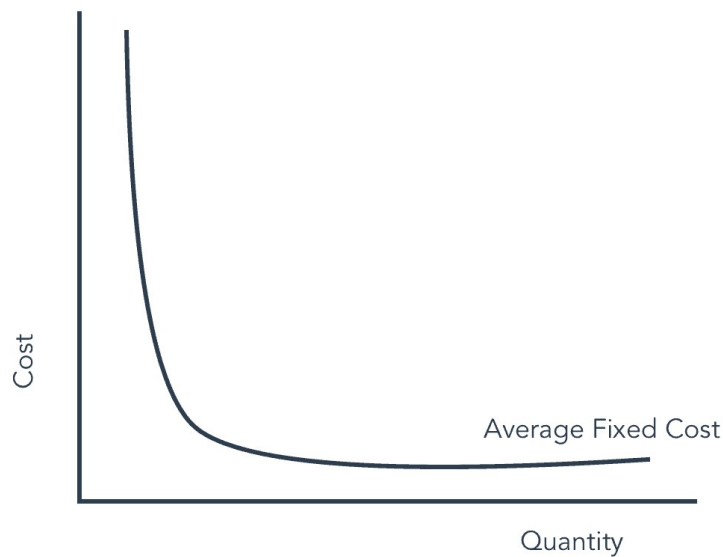
When, on the other hand, fixed costs are well distributed, even a significant loss of production volume may not significantly impair marginal profit, while it certainly has an effect on absolute profit. The same applies to the advantages that can be obtained by the country imposing the duties. If they aim to protect their sectors that are struggling to spread production costs, then they can produce a real advantage. If, on the other hand, they seek to protect sectors where costs are already well spread, the effects are minimal. As a tangible example, think of the impact a 10% tariff has on smartphones, televisions, cars, or agricultural products (decisive), rather than on luxury cars or clothes (very limited).

But this also means that there is a strong push to protect new industries, while there is a strong push to liberalise as much as possible (as long as the counterparts do the same) the most mature and efficient companies. In other words, there may not be countries that are totally in favour of free trade and others totally against. Each state has an interest in

protecting some sectors and demand the most absolute free market for others. Therefore, the approach to any mercantilist policy must start from a careful analysis of one's own companies and those of others. The same applies to policies in defence of labour. It is not enough to try and defend one's own companies, assuming it makes sense to do so, because this could damage others. One must actively intervene in the quality of schooling and the participation in employment of their workforce. Once the choice has been made as to which companies are most efficient, there is a need to stimulate participation in the type of work that is required by these companies. One thing is certain, the defence of labour in the weakest sectors is, in the long term, unsustainable without effective employment reconversion policies. Consider, for example an Italian case. A crisis in the mining sector that leads to the redeployment of labour in other sectors can certainly entail enormous social costs in the short term, but in the long run a marked improvement in working conditions.

In light of what we have seen so far, the Italian government's agenda should be quite clear. First and foremost, the strategy should be that of eliminating inefficiencies in our country, namely:

- Reduce tax evasion, which drains public resources for investments, limiting the so-called 'buffer'.
- Promoting tax fairness policies within the European Union, to avoid the escape of companies to countries that offer lower taxation (tax dumping). Success is also closely linked to the fight against tax evasion.
- Improving infrastructure, in particular transport routes and telematic facilities. The latter, above all, will be crucial for improving internal and external integration of our companies, a factor that in itself creates value and allows both the importing and exporting of efficiency.
- Further reducing the environmental impact of our industry, which would entail an improvement of the Italian ecosystem (with, moreover, possible benefits for agriculture and tourism), and at the same time it would represent an excellent bargaining weapon to force our foreign partners to do the same, leading to greater equity in production costs.

- Improving education, both in the sense of making it more appropriate to the real needs of our economic system, and by encouraging students to choose educational paths that increase their chances of finding satisfactory employment in Italy.

- Defending 'Made in Italy' more forcefully, to improve the perception of the quality of Italian products by foreign (but also domestic) consumers.

- Improve scientific research in Italy, especially through greater integration between schools and companies, but also through greater direct public investment, especially in basic research, which is not always fully appreciated by companies.

- Exert strong pressure on the European Union so that these policies become part of a common agenda of the entire EU, in order to increase bargaining power.

Italy certainly does not run the risk of taking on too many foreign companies. If anything, it must avoid losing any. The success of the eight points outlined above could also turn into a most difficult policy, which synthesises all the others, namely that of 'reshoring' (relocating within the national territory) many of our companies which were delocalised.

If, as far as industrial policy is concerned, the themes of a national political programme can only follow those suggested by the strategic analysis, in terms of reducing social inequalities the picture becomes enormously complicated and the biggest obstacles to the pursuit of greater income equity is precisely an integration model, namely the European Union. In fact, the recent Eurostat study on labour costs within the EU highlights dramatic results, which are well illustrated by Figure 43.

In Italy an hour's work costs a total of around 28€, better than in Germany and France (more than 35€), but almost six times as much compared to Bulgaria (5 Euros), three times as much compared to Poland and Hungary (10€) and just under three times the values of Croatia, Poland and Slovakia. Such divergences in labour costs cannot be made up even with the most aggressive employment policies, and they are explained by the different costs of living in the various States. With regard to these countries, tariff barriers cannot be high, but can only be acted upon politically so that the entire European Union starts pursuing wage rebalancing policies. However, in the short term it is unrealistic to think of such a measure, given the extreme difference in views that exists between the various member states, and also considering the slowness with which the EU acts in the economic field.

Figure 44 shows that among advanced economies, wage growth accelerated most rapidly (by 22 per cent) in the Republic of Korea, followed by Germany, where wage growth was near zero in 2008 and 2009 and only moderate in the period 2010–13, but thereafter accelerated, leading to a 15 per cent increase in real wages over the whole period 2008–2019. By contrast, real wages declined in Italy, Japan and the United Kingdom[46].

The developing countries mentioned before, in addition to an extremely low cost of living compared to that of the founding nations of the Union, also enjoy European subsidies for their economic development, in form of net fiscal transfers.

Figure 43 – Estimated hourly labour costs for Europe 2021
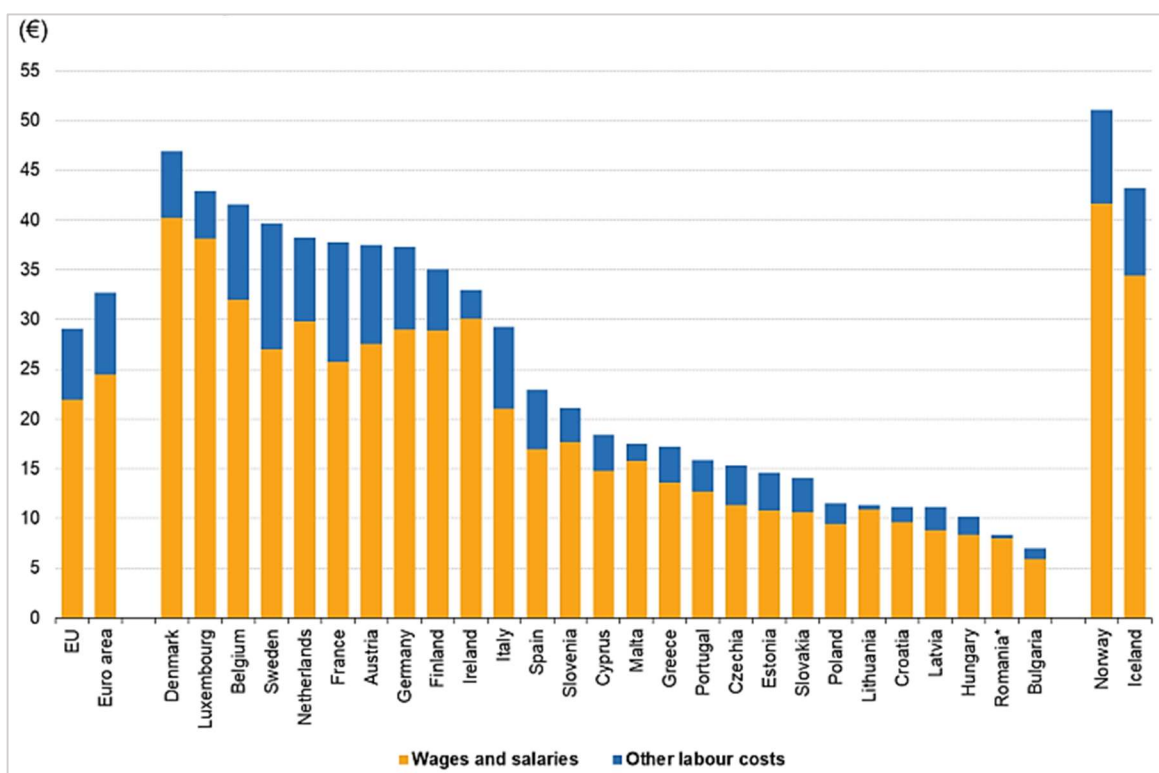

Source: Eurostat

The policies that help those countries serve to make their economic fabric as equal as possible to that of more developed countries. If successful, they will, over time, help to raise wages and the cost of living, making it less convenient for companies to move from one state to another. Will there be this levelling out, or is it pure illusion? Figure 45 seems to provide encouraging results.

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[46] International Labour Organization, *Global Wage Report 2020/2021, Wages and minimum wages in the time of COVID-19,* 2021.

The graph depicts the real average wage trend from 2008 to 2019 in the 20 most developed emerging countries. We can see that there has been a spectacular growth in Chinese wages, which more than doubled over 20 years, but Indian wages also grew by more than 50%. The graph shows that emerging countries do not behave in a purely parasitic manner towards Western companies, but manage to extract great value from them, which can also be redistributed on wages.

Does this 'economic miracle' also affect minimum wages? Again, the data from the International Labour Organisation are encouraging, as Figure 46 shows.

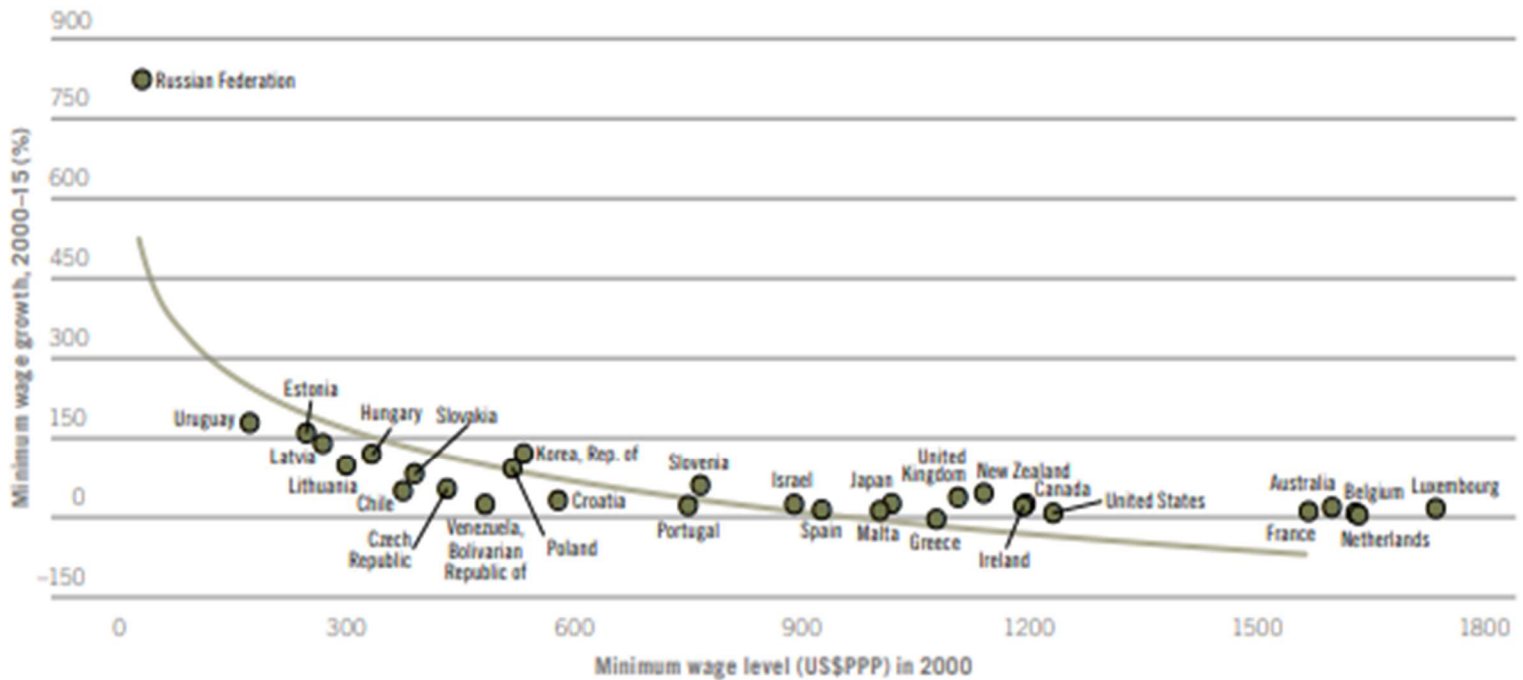Figure 44 - Average Real Wage Index of the Advanced G20 economies (2008-2019)
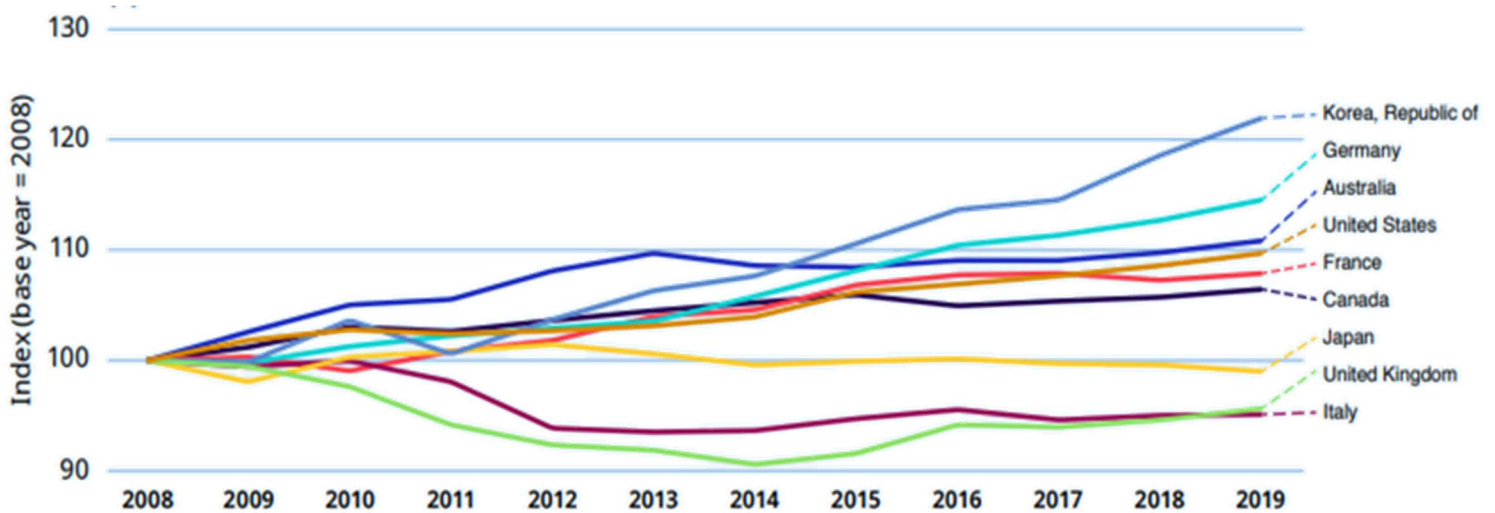
Source: International Labour Organization, *Global Wage Report 2020/2021, Wages and minimum wages in the time of COVID-19.*

Figure 45 - Average Real Wage Index of the Emerging G20 economies (2008-2019)
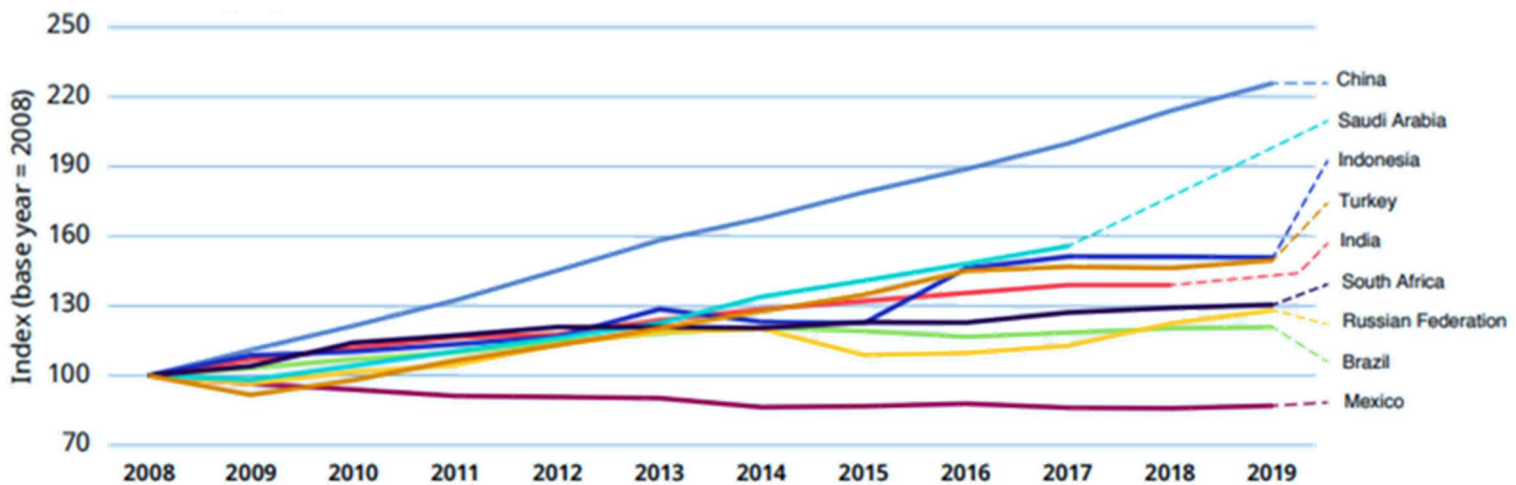
Source: International Labour Organization, *Global Wage Report 2020/2021, Wages and minimum wages in the time of COVID-19.*

Figure 46 – Convergence of minimum wages among higher-income countries

Source: International Labour Organization, *Global Wage Report 2020/2021, Wages and minimum wages in the time of COVID-19.*

As it can be clearly seen, the lowest wages have grown much more in emerging countries than in developed countries. We see that countries with lower minimum wages in 2000 have implemented the largest increases on average between 2000 and 2019, while countries with higher levels of minimum wages in 2000 have implemented smaller changes in the last 15 years. The latter data offer a surprising reading: the relocating of the worst paid jobs abroad seems to be the only way to make their wages more dynamic. It thus seems that emerging countries represent a kind of 'last resort' for low wages, threshold after which nothing can prevent their rebalancing. This, however, is not such an encouraging argument, at least in the short term, for the worst paid jobs in more developed countries. There will, indeed, be the need for a further growth in minimum wages in emerging countries for the inevitable spill-over effects to occur, spill-over effects that make it possible for minimum wages to rise in more developed countries as well.

The fate of the weaker classes of Italian workers therefore seems more in the hands of the global economic dynamics, rather than the most far-sighted economic and wage policies. What Italy can do on its own is intervene on the 'other labour costs', marked in Figure 43 by the blue part of the histogram. But, even in this case, our nation, contrary to popular

belief, is already very competitive among the more developed countries. Observe the difference with respect to France specifically. In any case, the gain would be minimal and not such as to rebalance the cost of labour of countries towards which an important part of the Italian and European production is localised.

As we have already seen in Chapter 1 regarding the integration of our country into the value chain and this Chapter concerning social inequality, even in terms of wage competitiveness, we can state with certainty that there is no 'Italian case'.

The recipe which can lead Italy towards overcoming its economic and social imbalances, especially the latter (inequality), must necessarily pass through an entire industrial policy, both at national and European level. The keys to improving the Italian economy are those contained in the eight points listed at the beginning of this paragraph.

Our economic history is certainly not a model of successful policy intervention in the economic sphere. But perhaps it is precisely the pressure of globalisation that can, over time, open a new chapter.

3.5 Impact of COVID on Inequality and Wellbeing.

Between the end of 2019 and the beginning of 2020, an infection, generated by a virus of the SARS-Covid family, the so-called Covid-19, broke out in Wuhan, China, and spread globally very quickly. In a matter of a few weeks, it assumed the proportions of a pandemic destined to generate globally significant economic and social repercussions.

Furthermore, the transmission channels that turned a health emergency into an economic crisis are clear. The social distancing measures correspond to negative effects on both the supply and demand of goods and services (domestic consumption and net exports) and on the investment choices of companies, which in turn generate spill over effects on the financial system (financial markets and banks) turning it into a potential detonator of the crisis[47]. The transmission mechanisms, although identifiable, are nevertheless complex because they include both direct and indirect effects.

For example, with regard to the shock of the supply-side, the direct consequences of the shutdown of an activity in one industry and in a given geographical area may be associated with indirect consequences on other industries and other geographical areas, depending respectively on the level of vertical integration of the activities (i.e., interdependencies along the production chain of a given good or service) and the degree of globalisation of the activities themselves.

The latter profile, in particular, is a critical factor in the transmission of supply shocks between sectors and countries all the more relevant the more the spread of the pandemic is asynchronous (as in the case of Covid-19) and the more production models are hinged on the delocalisation of activities and/or strongly dependent on global supply chains that increase interdependencies with foreign production (direct and indirect).

The supply shock can only be partially mitigated by replacing 'physically present' activities with remote work (so-called smart working): this excludes important areas of the service sector (such as tourism and catering) and industry, for which the lockdown leads to plant and factory closures, making the temporary supply shock become permanent. In addition to generating effects on the banking system, which will be discussed shortly, this would reinforce the shock on the demand side, through the reduction in employment, income and

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[47] Consob, *La crisi Covid-19: Impatti e rischi per il sistema finanziario italiano in una prospettiva comparata*, 2020

consumption, and would trigger downward expectations on the future prospects of economic activity.

Turning to the demand-side shock, measures restricting individual mobility had a direct and immediate negative impact on domestic consumption and net exports as well as on business investment. The former affects a broad spectrum of goods and services (e.g., tourism, retail trade, transport, mass entertainment) and are accentuated, in the intensity and perimeter of the sectors involved, by the so-called income effect and wealth effect. The income effect derives from the contraction of the disposable income of households, affected by the slowdown or temporary closure of some activities, which suffer a reduction in wages or, in the worst-case scenario, the loss of jobs: a temporary effect which faded as production rhythms and disposable income went back to pre-crisis levels. The wealth effect is related to the loss in value of financial assets held by individuals in the face of the negative performance of financial markets: this effect could also be temporary if conditions in financial markets return to more relaxed and investments in household portfolios recover the losses incurred during the crisis. The effects on net exports are affected by the pandemic's impact on the domestic demand dynamics of trading partner countries, and are all the more persistent the more asynchronous the spread of the epidemic is between countries. Finally, the impact on business investment was dependent on the level of uncertainty regarding the continuation of the pandemic and the counter-crisis measures implemented by the government and monetary authorities.

The COVID-19 crisis has, therefore, so far unfolded with varying effects on the economic conditions of people all over the world. One verdict, relating to the pandemic, appears almost unanimous: against a year-on-year increase of 7.4% in the global stock of net wealth, which stood at USD 418.3 trillion at the end of 2020[48], wealth disparities in the adult population widened in 2020 on a planetary scale and in most countries around the globe[49]. Furthermore, the rise in wealth was driven by a sudden recovery, at the end of June 2020, and a subsequent, persistent rise in the financial markets, as well as by growth at consistent rates in the value of real estate assets and the depreciation of the dollar against other currencies

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[48] Oxfam, *La pandemia della disuguaglianza*, 2022.
[49] Credit Suisse, *Global Wealth Report 2022: Leading perspectives to navigate the future*, 2022.

On a global scale, combining inequalities within countries with the differences among the levels of average wealth in the countries of the world, for the first time since the beginning of the new millennium, all wealth concentration indices (the net wealth share of the top-1%, the net wealth share of the top-10%) show an increase on an annual basis. In particular, even with the due acknowledgement of a temporary dynamic influenced by the institutional responses to the health, economic and social crisis of COVID-19, the growth of the top-1% wealth share showed in 2020 the second largest year-on-year increase of the 21st century.

The majority of the time, analysing wealth disparity boils down to answering two straightforward questions: how far the top wealth groups differ from the average citizen and how far the lowest groups differ from the average. The first of these questions is frequently discussed in terms of the percentage of wealth controlled by the top 10%, the top 1%, and so forth. The bottom half of the distribution's wealth distribution is not taken into account by these data. The Gini coefficient is a more inclusive indicator of inequality that takes both movements at the extremes of wealth into account.

It is commonly accepted that the COVID-19 pandemic's effects contributed to an increase in income inequality. The economic effects of the pandemic on employment and wages are thought to have hurt the lowest echelons of wealth holders, causing them to deplete their savings or take on more debt. Top wealth groups, on the other hand, have benefited enormously from the impact of reduced interest rates on share prices and home prices, making them relatively immune to declines in the amount of economic activity generally[50].

At the apex of the global wealth pyramid, ultra-high net worth individuals (adults with net worth in excess of $50 million at the end of 2020) saw a 23.9% year-on-year jump to over 215,000, an increase of over 41,000 since the end of 2019. Resorting to more data from the Forbes List of billionaires and extending the analysis to the final part of 2021, we observe how the net worth of the 10 richest billionaires has more than doubled (+119%), in real terms, since the beginning of the pandemic, exceeding the aggregate value of $1.5 trillion, more than 6 times the net wealth stock of the poorest 40%, in terms of assets, of adult citizens worldwide[51].

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[50] Credit Suisse, *Global Wealth Report 2022: Leading perspectives to navigate the future*, 2022.
[51] Consob, *La crisi Covid-19: Impatti e rischi per il sistema finanziario italiano in una prospettiva comparata*, 2020

Figure 47 – Average Annual Wealth Growth Rate (1995-2021).
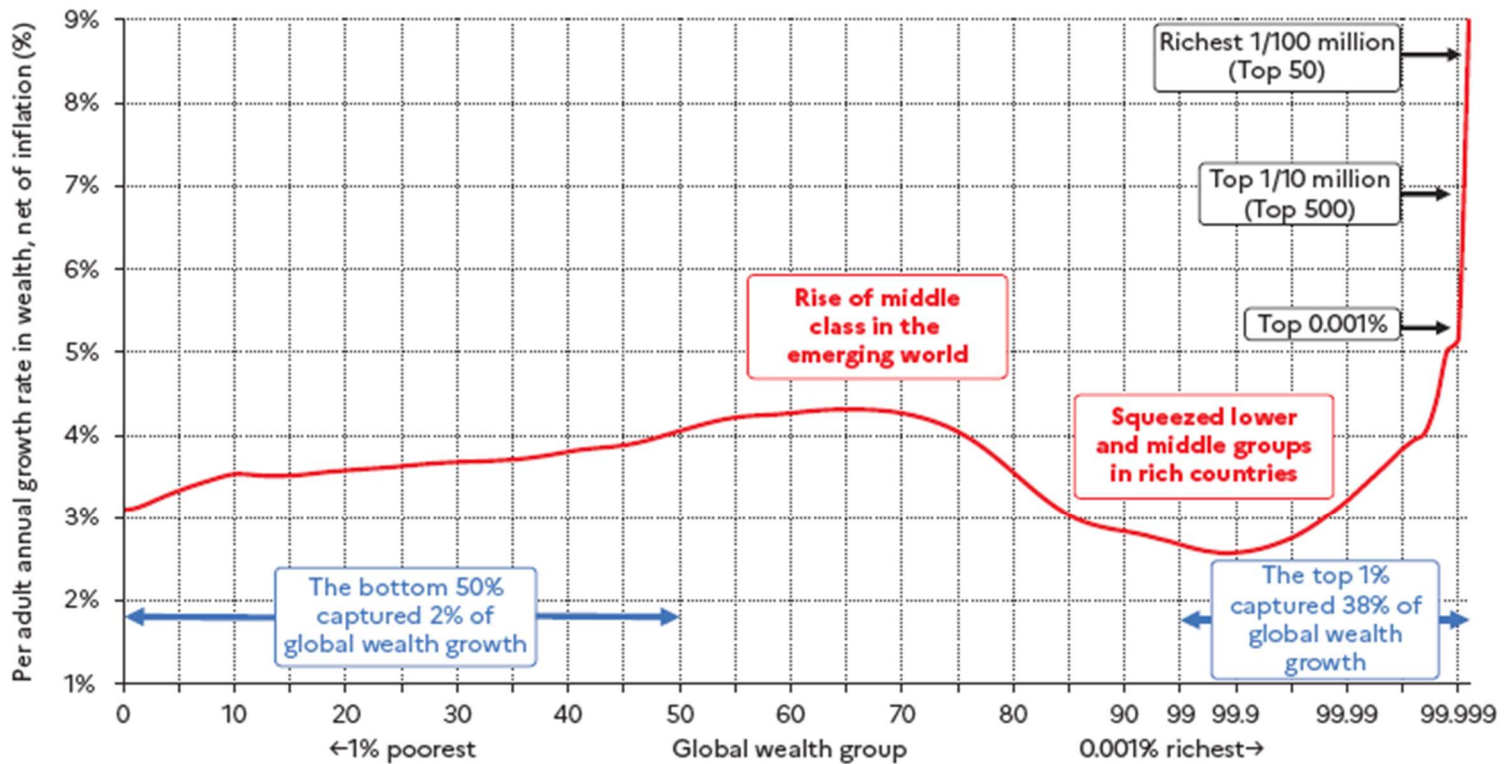
Source: World Inequality Report 2022.

Purely by way of example (i.e., not taking into account either the immediate liquidity of their assets or capital gains on financial assets) the 10 ultra-billionaires would need 414 years to spend their fortunes at the rate of $1 million per day each.

Again, by way of example, if the value of the net wealth of the 10 richest billionaires dropped by 99.993% each of them would still remain within the top-1% of the global wealth distribution by reference to the threshold for entry into the last percentile of the distribution of $1,055,337 at the end of 2020.

Looking back at the distribution of the net wealth surplus over the almost 30-year period between 1995 and 2021 (see Figure 47), the wealthiest 1%, in terms of assets, enjoyed 38% of the wealth surplus. Just 2.3% of the surplus went to the poorest half of the world's population.

The World Bank's most recent estimates of the dynamics of extreme poverty on a global scale project the number of new poor people due to COVID to be 97 million in 2021, despite a catching-up dynamic from the first pandemic year. This is an increase in extreme poverty without historical precedent. The World Bank's June 2021 outlook is subject to

considerable uncertainty related to the possible evolution of the pandemic in low- and middle-income countries, the development of new viral variants, delays in the vaccination campaign, government debt levels and rising food prices. The slight decrease in the extreme poverty rate from 2020 to 2021 (which had already experienced periods of slowdown before the pandemic) did not affect low-income countries where the poverty rate is projected to increase by 2.7% in the last year (compared to a projection for 2021 of +0.2% pre-pandemic). In the sub-Saharan Africa region, pre-COVID forecasts projected an increase in the poverty rate by 1% in 2021. This rate more than doubled (+2.5%) due to adverse effects of the crisis.

Significant increases in GDP, along with robust equity and housing markets, are predicted to yield significant wealth gains at the national level, and this was certainly the case in 2021[52]. Every year, the United States tends to outperform predictions, and in 2021, it added 19.5 trillion dollars to its stock of household wealth. This is far higher than China's second-place contribution (USD 11.2 trillion), and far above the increases recorded in Canada (USD 1.8 trillion), India (USD 1.5 trillion), and Australia. Losses were significantly less prevalent, and they were all linked to currency decline.

A better indicator of the relative performances of various nations is the change in wealth per adult, and Figure 48 shows the largest gains and losses based on this criterion. Wealth per adult in New Zealand increased by 32%, as a result of rapidly rising property prices and an appreciating currency. The United States, Australia, and Canada all experienced average wealth growth above USD 50,000. The losses reported for a few nations were quite small (under USD 20,000) and once more reflected currency devaluation, for example, Turkey, Belgium, Italy (down USD 13,444), and Japan.

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[52] Credit Suisse, *Global Wealth Report 2022: Leading perspectives to navigate the future*, 2022.

Figure 48 – Change in wealth per adult (USD), 2021.
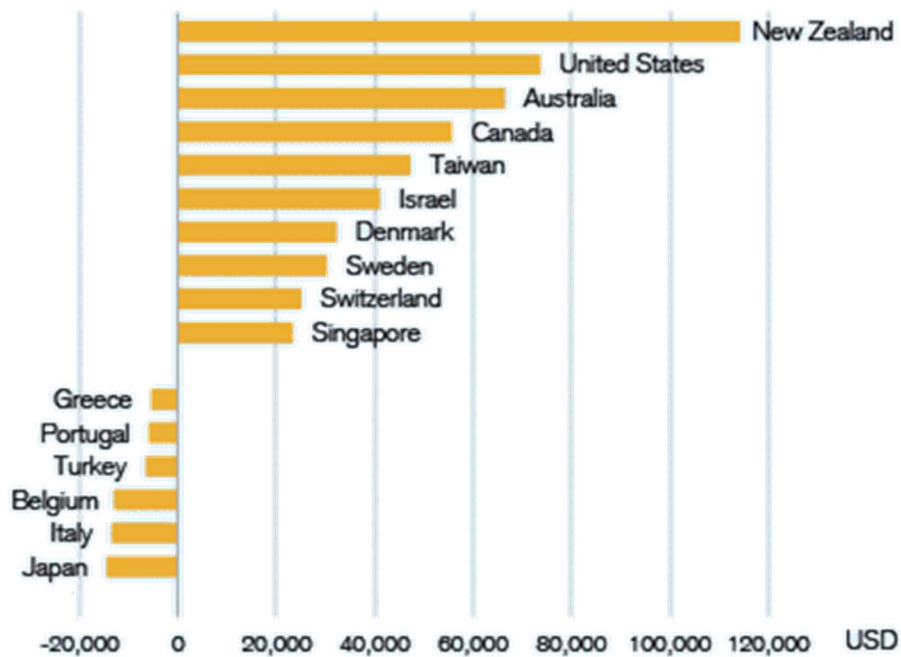
3.5.1 Italian Trends

Italy was one of the European countries most affected by the pandemic in terms of contagions and deaths.

The crisis brought about by the spread of the epidemic impacted our country at a time characterised by a prolonged weakness in the economic cycle: between 2015 and 2017 there had been a weak acceleration, giving way to an almost stagnant trend in the following years. In 2019, the Gross Domestic Product (GDP) recorded a weak increase of around 0.3% and its development, particularly in the second half of the year, first came to a halt and then turned negative.

The partial blockage of activities and social life linked to the health emergency, has led to worrying effects from an economic point of view: in the first quarter of 2020, the Italian GDP contracted by a staggering 5.3% compared to the previous quarter. The particular origin of the crisis, namely of an epidemiological nature, manifested itself with a negative involvement of all the main production sectors.

At the end of 2020, the distribution of net national wealth saw the richest 20% of Italians holding more than 2/3 of the national wealth, the next 20% (fourth quintile) held 18.1% of the wealth, leaving the poorest 60% of our fellow citizens with just 14.3% of the national

wealth. The top 10% (in wealth terms) of the Italian population owned more than 20 times the wealth of the poorest half of the population (see Figure 49). Comparing the top of the wealth pyramid with the poorest deciles of the Italian population, the result is even more discouraging. The wealth of the richest 5% of Italians (holder of 40.4% of net national wealth) was higher than the stock of wealth held by the poorest 80% of our fellow nationals (32.4%). The net wealth position of the richest 1% (who held 22.2% of the national wealth at the end of 2020) was worth more than 51 times the total wealth held by the poorest 20% of the Italian population[53].

Figure 49 – Wealth Inequality in Italy (2000-2021)
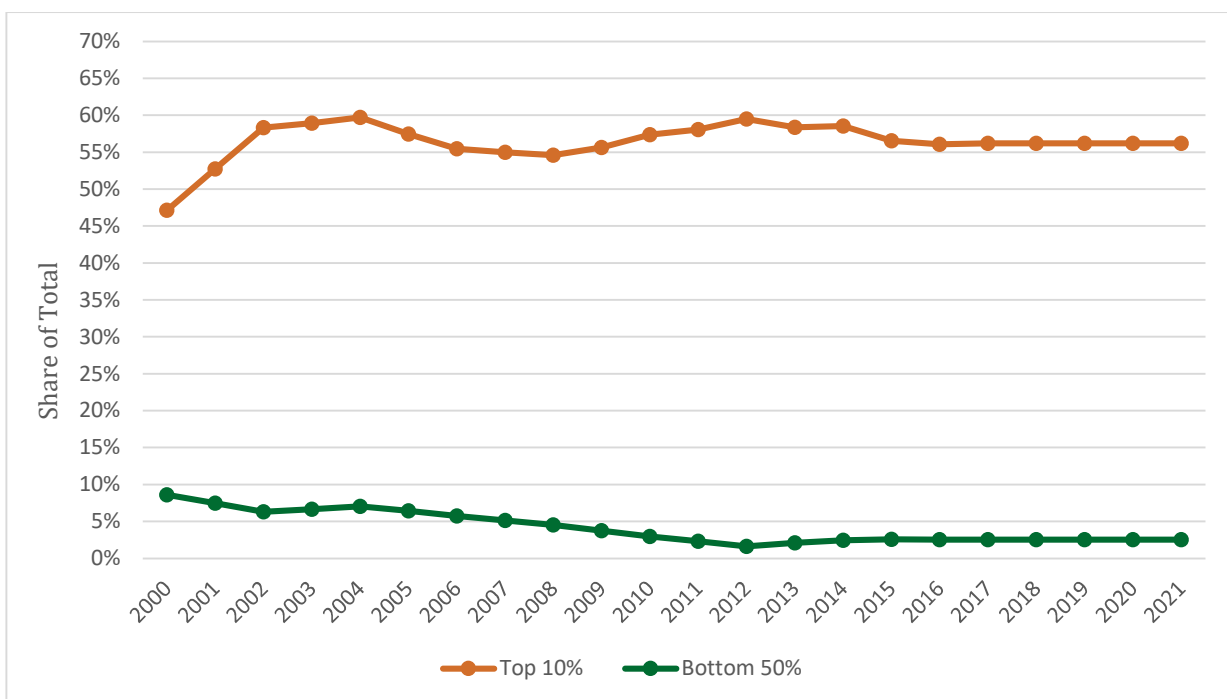
Source: World Inequality Database

In the first decade of the millennium, the wealth share of the richest percentile of Italians saw a decline up to 2010 (from 22.1% to 17.3%), followed by growth in the next six years (up to a peak of 23% in 2016), a new, milder, contraction up to 2019 and a slight recovery in 2020.

In the 21 years between the beginning of the new millennium and the end of 2020, the shares of net national wealth held by the richest 10% and the poorest half of the Italian population have shown diverging trends. The share of wealth held by the top-10% grew by 10 percentage points over the 2000-2020 period, while the share of the poorest half of

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[53] World Inequality Database.

Italians showed a downward trend, declining overall over the last 21 years by 6.1 percentage points (see Figure 49).

Despite extensive forms of support for household purchasing capacity deployed by the government during the pandemic, the negative trend in household primary income in the first year of the pandemic (-7.3% compared to 2019, a drop of EUR 93 billion) caused a sharp contraction in Italian households' consumption expenditure. The compression of consumption in turn led to an increase in the incidence of absolute poverty in our country. Families in absolute poverty increased from 1.6 million in 2019 to 2 million in 2020 (with an annual change in incidence from 6.4% to 7.7%). At the individual level, more than 1 million new poor people (for a total of 5.6 million) were recorded by ISTAT in 2020. The worsening of the incidence of absolute household poverty in 2020 affected the North of the country more than the Centre and the South (where the incidence is still more pronounced)[54].

Our country has already seen a similar year-on-year increase in the incidence of absolute household poverty in the recent past during the sovereign debt crisis that unfolded in 2012. However, the two crisis episodes, that of 2008-2012 and that of COVID-19, seem to present different characteristics. In 2012, what prevailed was an actual, sharp drop in income, not compensated by support measures, which forced households to rely on their savings. In 2020, expenditure on non-essential consumption, namely, in product categories other than food and housing, fell sharply compared to 2019, with a corresponding unprecedented increase in the savings rate.

The slump in consumption in 2020 would thus seem to be less attributable to the loss of household purchasing power, but more attributable to asset restrictions and the pandemic change in consumption habits: a 'compulsion' to consume less determined by the specific contextual conditions the country faced (lockdown periods, fears over the risk of contagion, uncertainty over the duration of public support measures).

What we can assume then is that, as we said previously, globalization spread the effects of the virus all over the world. Still the question remains on what are the best strategies which can decrease and lower the negative effects of a worldwide connected globe.

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[54] Oxfam, *La pandemia della disuguaglianza*, 2022.

3.6 Future Expectations and Forecasts.

After a shaky recovery in 2021, things started to worsen in 2022 as threats started to materialize. In the second quarter of this year, the world's production decreased due to declines in China and Russia, nonetheless US consumer spending fell short of projections[55]. An already fragile global economy has been hit by a number of shocks, including higher-than-expected global inflation, especially in the United States and major European economies, tighter financial conditions, a worse-than-expected slowdown in China due to COVID19 outbreaks and lockdowns, and additional negative fallout from the conflict in Ukraine.

The outlook is overwhelmingly threatened by downside risks. Russian gas imports to Europe could be brusquely stopped due to the crisis in Ukraine. If labour markets are tighter than anticipated or inflation expectations unblock, inflation may be harder to control than predicted. Debt hardship may result from tighter global financial circumstances in developing and emerging markets and countries. Additional COVID-19 outbreaks and lockdowns as well as a further development of the property sector crisis would further limit Chinese economy and geopolitical fragmentation might impair global commerce and cooperation.

Globally, rising prices keep putting pressure on living standards, so policymakers should put a priority on taming inflation. Real economic costs of tighter monetary policy are inevitable, but delaying action will only make them worse.

Targeted fiscal assistance can lessen the burden on the most vulnerable, but because of the pandemic's strain on government budgets and the requirement for a disinflationary general macroeconomic policy stance, such measures will need to be countered by higher taxes or cuts to spending by the government. Financial stability will also be impacted by tighter monetary circumstances, necessitating wise use of macroprudential tools and making changes to debt resolution regimes are even more imperative. Without using misleading pricing, policies used to address specific impacts on energy and food prices should concentrate on those most negatively impacted.

Consumer prices consistently increased more rapidly than anticipated since 2021. In the US, the consumer price index increased by 9.1% in June from the same month last year.

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[55] IMF, *World Economic Outlook July 2022: Gloomy and more uncertain.* 2022.

Inflation in the euro zone rose to 8.8 percent in June, the highest level since the monetary union's creation. The second quarter's expected inflation rate in emerging market and developing economies was 9.8%, which is very alarming. Most economies have seen a rise in headline inflation as a result of higher food and energy prices, supply shortages in numerous industries, and a rebalancing of demand back toward services.

Figure 50 – Inflation Rates from year 2008 to 2022.
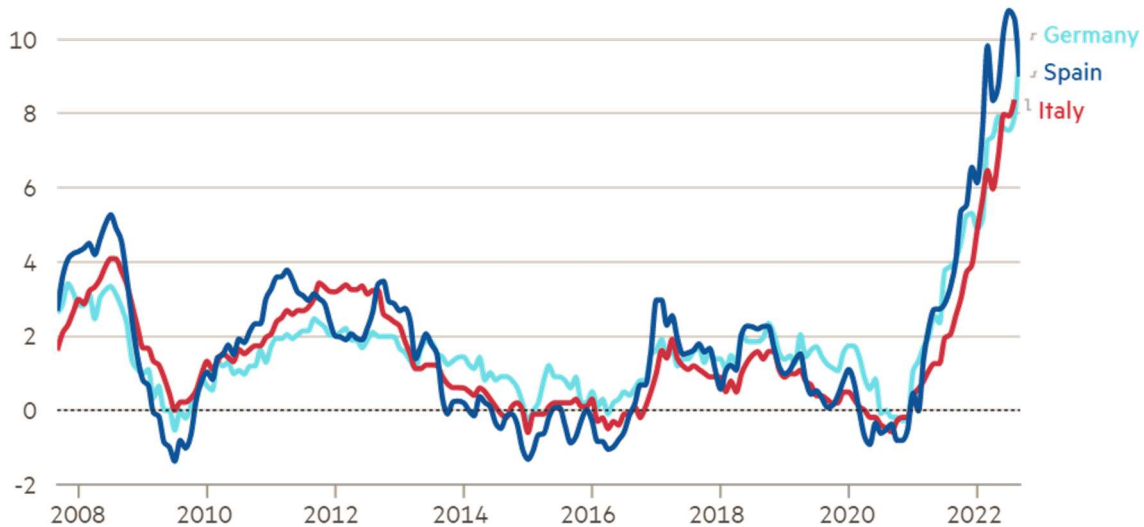

Source: World Bank Data.

Figure 50 outlines the inflation rates of the three different countries: Germany, Italy, and Spain for a time period of 14 years (2008-2022). One can see how the trends follow a similar path among countries and time frames. In most economies, rising food and energy prices, supply shortages in many industries, have all contributed to higher headline inflation. The financial crisis increased inflation but COVID and the recent war in Ukraine had such an impact that inflation rose up to 10% in Germany. In developed, emerging markets, and developing economies, wage growth has generally lagged behind inflation, which has reduced household spending power.

In response to newly released data, central banks of significant advanced economies are assertively withdrawing monetary support and boosting policy interest rates more quickly than anticipated. Central banks in some emerging market and developing economies have raised interest rates more aggressively than in previous contraction cycles of established

economies[56]. Growth has been hindered by the sharp drops in equity values brought on by the rise in longer-term borrowing costs, notably mortgage rates, and tighter global financial conditions. Public COVID-19 support packages have also been discontinued.

There is still widespread suffering as a result of the war in Ukraine. The humanitarian cost of the conflict is increasing as more lives are lost, physical capital is being destroyed, and 9 million people have fled Ukraine since the Russian invasion began. Additional financial penalties have been imposed on Russia by key advanced economies since April 2022, and the European Union agreed to impose import bans on coal starting in August 2022 and on Russian seaborne oil starting in 2023. At the same time, the Group of Seven intends to research the potential of imposing a price cap on Russian crude oil exports, while the Organization of the Petroleum Exporting Countries has decided to advance supply increases in oil that were scheduled for this September. Due to higher energy costs, reduced consumer confidence, slower manufacturing growth from ongoing supply chain interruptions, and higher input costs, the war's consequences on the major European economies have been pretty detrimental (Figure 51).

Figure 51 – Fossil Fuel Prices (2020-2022).
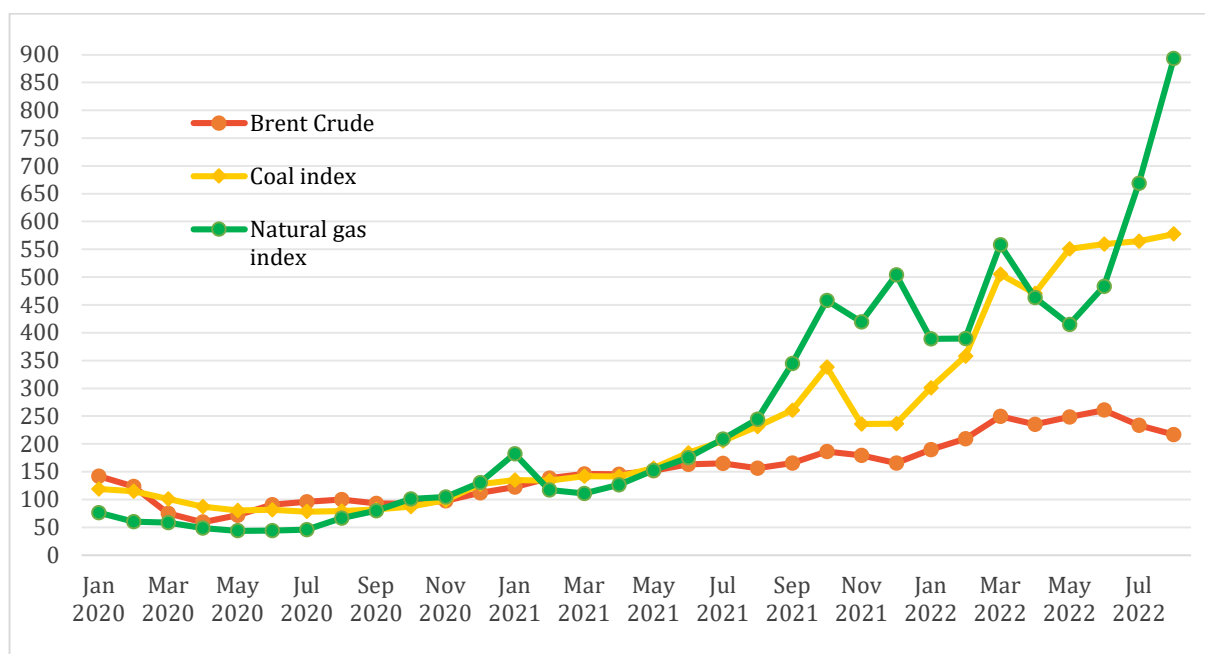
Source: International Monetary Fund.

Energy and food are necessities with limited alternatives, thus price increases hurt households the most. Families can easily reduce or even stop spending on other products

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[56] IMF, *World Economic Outlook July 2022: Gloomy and more uncertain*. 2022.

like technology, furnishings, or entertainment when their prices rise. This is more difficult for necessities like food, heat, and transportation, which are necessary to live. As a result, the current state of affairs endangers both social and economic stability. Since the pandemic's acute phase has ended, unrest has increased, which is in line with IMF data[57] that claims that unrest is lower during pandemics and that greater food and energy prices are reliable predictors of discontent.

The upcoming prediction is quite uncertain as a result of the developments described previously. The baseline forecasts debated in the discussion that follows are based on a number of presumptions, such as, among others, that there won't be any more unexpected decreases in natural gas flows from Russia to the rest of Europe and that long-term inflation expectations would stay consistent. However, there is a high chance that some or all of these fundamental presumptions will turn out to be incorrect. In a similar manner, indicators of economic uncertainty and fears about an impending recession have grown recently. Recession probability estimates have also gone up. Overall, this thesis focuses on an alternative scenario that shows the impact of many downside risks that could plausibly materialize in the near term as a complement to the baseline in consideration of escalating risks and uncertainties. Economic results would be substantially worse if other shocks to the global economy were to occur.

The outcome described by the graphs that follow were estimated by using several data from official institutions and the study of different reports.

According to the baseline scenario, global growth reaches a level of 3.1% in 2022 and is projected to decline to 2.4% in 2023 (Figure 52). The downward global growth for 2022–2023 are being driven by downgrades for China, the United States, and India. These estimates reflect the materialization of the downside risks, which include a sharper slowdown in China due to prolonged lockdowns, tightening global financial conditions linked to expectations of steeper interest rate hikes by major central banks to ease the weight of inflation, and economic consequences from the conflict in Ukraine.
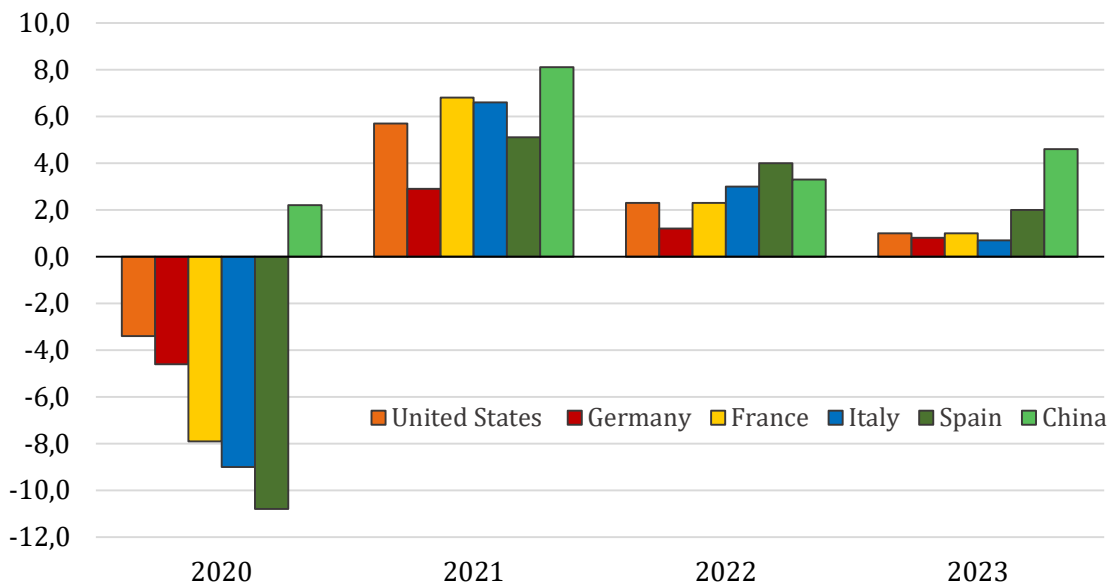
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[57] Philip Barrett and Sophia Chen, *Social Repercussions of Pandemics*, IMF Working Paper 21/21, International Monetary Fund, Washington, DC. 2021.

Figure 52 – Global Growth Projections for 2023.
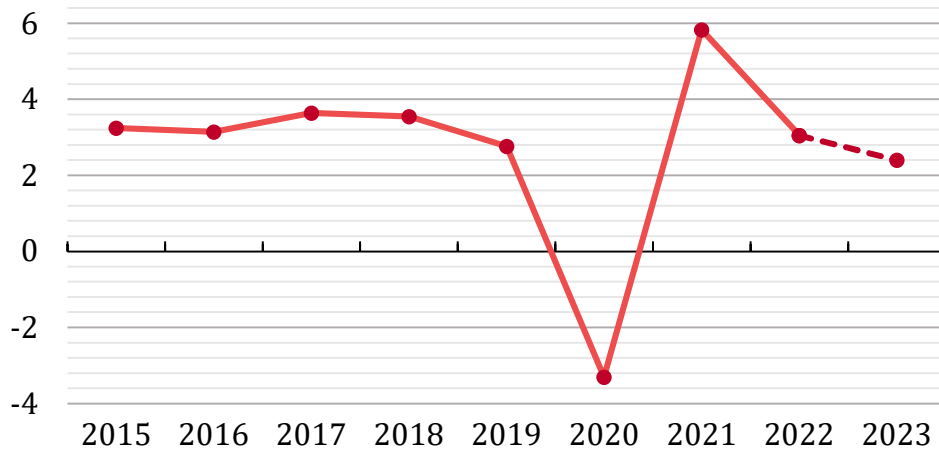
Figure 53 – Growth Projections for Six Countries.

As mentioned, major advanced economies' growth projections for 2022–2023 are typically downwardly reviewed. Based on weaker-than-anticipated growth in the first two quarters of 2022 and significantly less momentum in private consumption, which is partly due to the decline in household purchasing power and the expected effects of a steeper tightening of monetary policy, the baseline growth in the United States is expected to decline in 2022 and 2023. The Euro area's growth is also expected to decline in 2022 as well as 2023, as severe downgrades in France, Germany, and Spain offset higher tourism and industrial activity projections in Italy. In July 2022, the European Central Bank stopped buying net

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assets and raised rates for the first time since 2011, reflecting the effects of the conflict in Ukraine as well as the prospect of tighter economic conditions.

The steep slowdown in China's economy and the slowing of India's economic growth are the key factors influencing the negative projections to growth in emerging and developing economies for 2022–2023.

The initial estimate of global inflation, which increased up to 9 percent in 2022, is projected to decrease slightly throughout 2023, reaching a stable level in the fourth quarter of 2023. Forecasts for 2023 are relatively conservative, indicating confidence that inflation would drop as central banks tighten monetary policy and the base effects of rising energy prices become negative. By the end of 2024, inflation is expected to be back to levels similar to those before the epidemic.

Figure 54 – Global Inflation Rates (2020-2023)
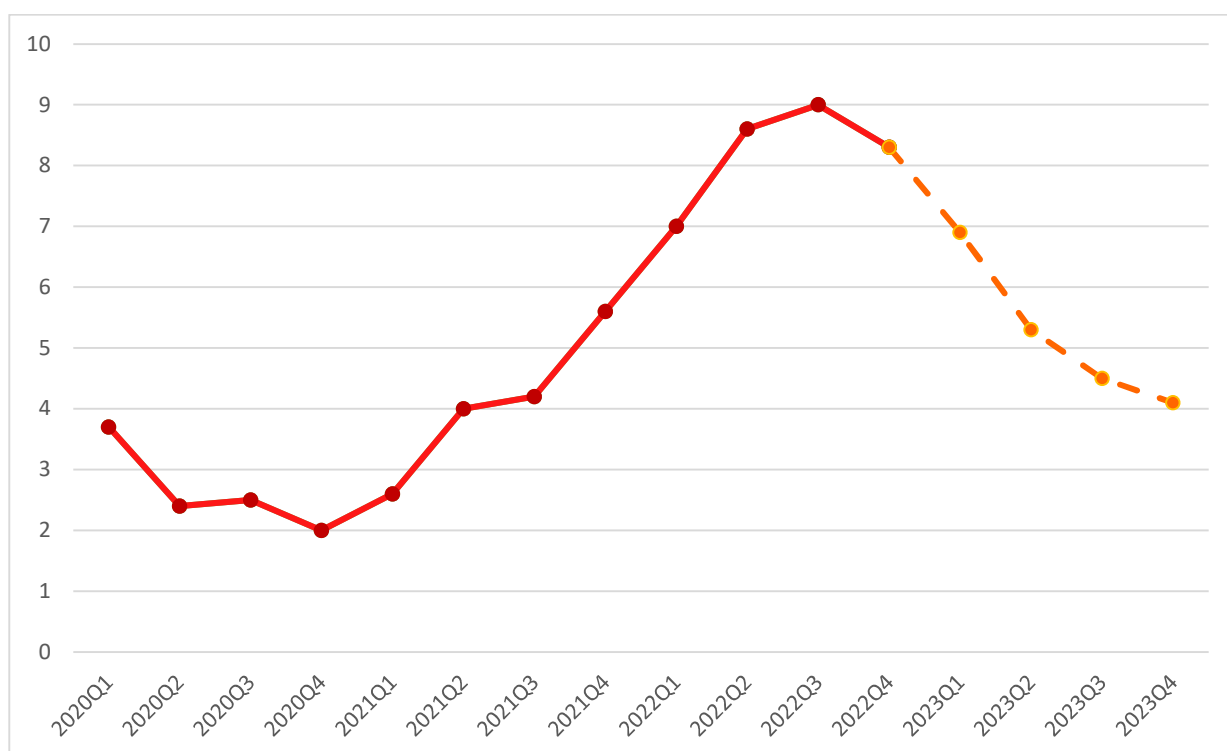
However, a number of circumstances could lead to it maintaining momentum and raising long-term expectations. A further tightening of monetary policies could result from more supply-related shocks to food and energy prices brought on by the conflict in Ukraine. These shocks could cause a substantial rise in inflation. Although this is not included in the baseline scenario, such shocks could, if sufficiently severe, result in a recession followed by

high and rising inflation (sometimes known as "stagflation"). Numerous economies are experiencing historically high levels of labour market tightness, and employees may start to demand more compensation for previous rises in the cost of living.

The possibility that the conflict in Ukraine would lead to the global economy becoming divided into geopolitical blocks with different technology standards, cross-border payment systems, and reserve currencies poses a severe threat to the medium-term picture. Reshoring has not yet been widely documented, and since the pandemic's beginning, international trade has proven to be resilient. Fragmentation runs the additional risk of making the current food crisis the norm, which could reduce the efficacy of global collaboration to combat climate change.

At this point, bringing inflation under control should be the top policy objective because price stability is a requirement for long-term growth in the economy's well-being and financial stability[58]. Depending on the nature and scope of price pressures, different economies require different combinations of monetary, fiscal, and structural policies to combat inflation:

- Economic systems need to take prompt action to tighten monetary policies, with central banks reducing their balance sheets and increasing real interest rates. This is especially important in economies where underlying inflation and inflation expectations have increased steadily and significantly above target levels. Such measures minimize inflation in the short term, but at the expense of more unemployment, and inferior wages. The effects of any slowdown are likely to be felt the greatest by the same groups of individuals who directly suffered in recent years—those with poor earnings, unstable work status, little savings, or access to credit.
- Fiscal policy plays a specific role during periods of deflation, protecting the most vulnerable from the effects of the necessary cooling in economic activity through targeted and short-term fiscal transfers. While pay limitation in the public sector could reduce inflationary pressure, measures that aim at primarily restricting prices and wages in the private sector should typically be avoided because they have frequently been found to be expensive and ineffective in the past.

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[58] IMF, *World Economic Outlook July 2022: Gloomy and more uncertain.* 2022

- Although they are unlikely to have a rapid impact on inflation, structural reforms can also be used to combat inflation by increasing aggregate supply. Policies that expand the labour supply, such as higher earned income tax credits, more day-care financing, improved access to COVID-19 immunizations and treatment, and reform of immigration patterns, would increase productivity and real incomes and help to cut inflation. Enhancements to the business environment, green initiatives, and digitalization can all increase aggregate supply in developing countries.

- Beyond general inflation, particular issues in the food and energy sectors will call for different policy solutions. Commodity supply on international markets would increase if the invasion of Ukraine and the Black Sea blockade were lifted. Governments should also avoid hoarding food and energy in favour of removing trade restrictions like food export prohibitions, which are implemented to avoid domestic shortages but actually raise global prices. Governments should generally allow prices to fluctuate freely since high prices are a symptom of a limited resource and encourage its production and conservation.

As far as inequality is concerned, the expectations follow an upward path especially for wealth inequality. COVID and the Ukrainian conflict destabilised the economy so much that inequality is expected to increase. The graph below displays projections and the evolution of the top 0,1% and middle 40% shares if each group kept rising at the same speed, all else being equal.

Figure 55 – Projections of global wealth inequality (2000-2100).
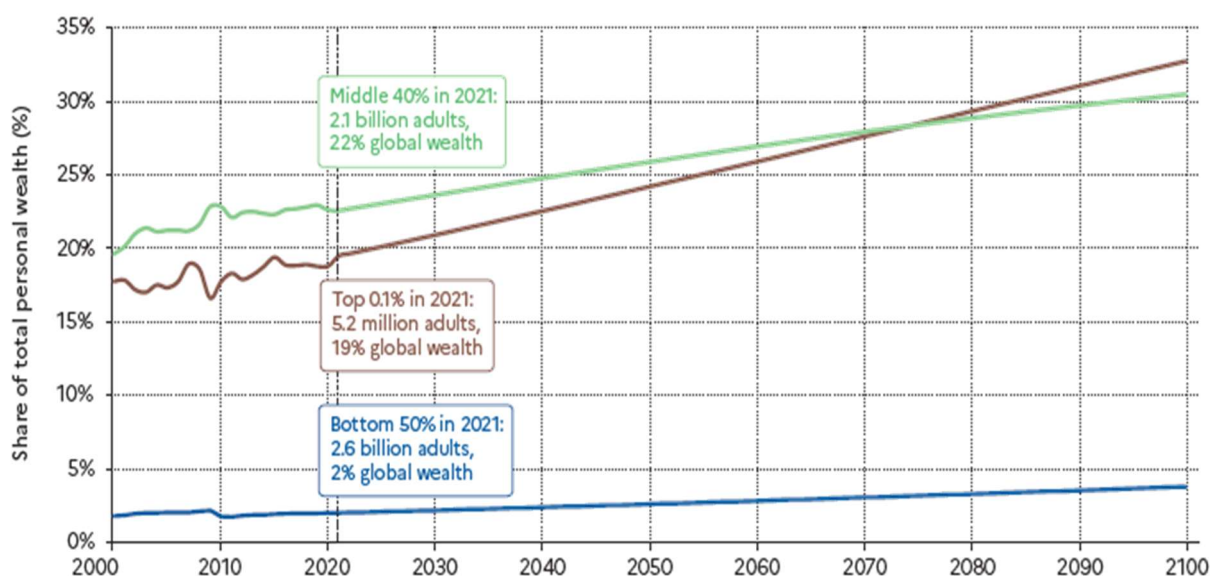
Source: World Inequality Report 2022.

According to this projected scenario, by 2070, the world's top 0.1% will own more than a quarter of the world's wealth. It will own more than the global middle 40% by the end of the century.

If we consider gender equality, at the current rate, it is safe to say it will take nearly three generations to attain gender parity because gender equality is only progressing by one point every two years. Additionally, COVID-19 and war pose a hazard even to that projection. The epidemic poses a genuine risk, impeding advancement and even undoing fragile improvements gained since 2010.

CONCLUSION

The worldwide benefits of globalisation are obvious. It was able to get hundreds of millions of people living in developing countries out of poverty.

However, equally evident are the controversial and negative aspects that the current hyper globalisation produces. And as we have seen in the course of the work, these problems are, although in a modern form, the same ones that have been generated by international trade.

In the thesis, it was pointed out that globalisation is first and foremost competition among states, in order to grab the largest number of companies that are innovative enough to be able to impose industrial standards on the entire sector in which they operate; among companies, in order to obtain economic leadership and attract the largest possible influx of capital, useful for maintaining their competitive advantage over time; among social classes, in terms of distribution of produced income.

History teaches that the attempt by individual states to circumvent the adverse effects of globalisation has almost always resulted in measures of mere contingency and import restrictions, without ever being marked by a competitive strengthening of the country which could turn the tides on global economic competition. The examples cited in the paper show that the initiatives implemented by the political classes of the various countries often showed little knowledge of the true dynamics of the phenomenon, frequently falling into the error of considering only the domestic economy and neglecting its inclusion in the global context. In other words, they always defended their own economy, remaining short-sighted with respect to the potential mutual benefits of global economic integration.

We can summarise the main implications and conclusions reached through the analysis conducted throughout the different chapters as follows:

1. The leadership of a State in the global competitive arena is not achieved by concentrating as many companies as possible in its territory in absolute terms, but is based on the ability of its companies to be at the forefront of technological innovation, allowing them to dictate the evolution's trends of the sector in which they operate, thus finding themselves in a position of competitive advantage that is difficult for foreign companies to imitate.

2. The consequence of the previous point is that, paradoxical as it may seem, it would be preferable for nations to renounce subsidising their inefficient companies with state subsidies or measures to protect them against foreign competition, leaving those countries

where the most favourable economic conditions for the development of certain sectors exist unhindered in obtaining the greatest possible benefits from the efficiency of their companies. This is to prevent countries from reducing each other's potential profits of their most efficient enterprises in order to defend the less competitive ones. But how many governments would be willing not to fight competition?

3. Globalisation squeezes employment and incomes of less skilled workers in advanced countries. Companies relocate their production to developing countries where labour costs are significantly lower. However, recently we have witnessed in several emerging countries a rapid growth in incomes due to increased demand for labour. Essentially, a kind of automatic adjustment mechanism is taking place, which in the long run could lead to a rebalancing of the labour market.

4. In the light of what was made clear in the previous point, it would seem inadvisable to make any clumsy attempt to increase lower incomes in countries with high labour costs, especially in less competitive sectors. This would in fact lead to a decrease in the profits of companies still operating in those countries, generating loss of competitiveness against foreign competitors and a further push towards offshoring.

5. There remains the problem of stagnating incomes of the middle class in developed countries, which has probably been the most damaged by the effects of the spread of e-commerce and digitalisation in general. World data at the moment shows no signs of automatic adjustment and the only solution for this class of workers therefore seems to be its reconversion, especially towards digitalisation.

6. Italy, as we have seen, maintains a good position in terms of integration in the global value chain. The low growth of recent years however, prevents a policy of public and private investment on a scale that would allow it to climb a few positions.

7. The Italian labour market suffers not only from problems of inequality, but also from a lack of wage growth, but this is attributable to the country's low overall growth. Considering Italy's good industrial position, what has been lacking, and will probably still be lacking for several years due to the high level of public debt, is a sound fiscal policy of reducing labour costs and providing incentives for investments aimed at creating new jobs. The data shows that in terms of labour competitiveness, the fiercest competition for Italy

comes from Eastern European countries, as well as from Asian countries. It is therefore up to the European Union, rather than Italy, to correct these imbalances.

8. COVID turned what was a health emergency into an economic crisis. Concerning shocks both on the supply as well as demand side. On a global scale, the growth of the top-1% wealth share showed in 2020 the second largest year-on-year increase of the 21st century, so, it is commonly accepted that the COVID-19 pandemic's effects contributed to an increase in income inequality. Italy was critically hit by the consequences of COVID, especially in relation to the GDP, households' consumption expenditure and income inequality, with the top 10% owning more than six times the wealth of the bottom 50%.

9. What we can expect in the future years is complicated to forecast, especially given the current unstable geopolitical situation we are facing. An already fragile global economy has been hit by a number of shocks, including higher-than-expected global inflation, higher commodity prices, and tighter global conditions. In response to newly released data, central banks are assertively withdrawing monetary support and boosting policy interest rates. The forecasts were made on the basis of the data collected by official institutes and the study of the global scenario. According to the projections considered, we will have a slight global growth in 2022 which is projected to decline in 2023 due to the effects mentioned before. Forecasts for 2023 are relatively conservative, indicating confidence that inflation would drop as central banks tighten monetary policy and the base effects of rising energy prices become negative.

BIBLIOGRAPHY

1. W. F Stolper, P.A. Samuelson, *Protection and Real Wages*, Review of Economic Studies, 1941.

2. Rosamaria Bitetti, Ornella Darova e Carlo Stagnaro, *L'Indice della Globalizzazione*, A research conducted in collaboration with Whirlpool EMEA idee per il libero mercato, March 2017.

3. Cfr.   http://globalization.kof.ethz.ch/

4. Savina Gygli, Florian Haelg and Jan-Egbert Sturm, *The KOF Globalisation Index – Revisited*. KOF Working Papers, No. 439, February 2018

5. Ritzer, George. *The Mcdonaldization Thesis. Explorations and Extension*. London-Thousand-Oaks-New Dehli, Saqge publications, 1998.

6. Philip Barrett and Sophia Chen, *Social Repercussions of Pandemics*, IMF Working Paper 21/21, International Monetary Fund, Washington, DC. 2021.

7. IMF, *World Economic Outlook July 2022: Gloomy and more uncertain*. 2022.

8. Oxfam, *La pandemia della disuguaglianza*, 2022.

9. Consob, *La crisi Covid-19: Impatti e rischi per il sistema finanziario italiano in una prospettiva comparata*, 2020.

10. Credit Suisse, *Global Wealth Report 2022: Leading perspectives to navigate the future*, 2022.

11. International Labour Organization*, Global Wage Report 2020/2021, Wages and minimum wages in the time of COVID-19,* 2021.

12. Confindustria, *Dove Va l'Industria Italiana. Rapporto 2019*, Roma, 2019.

13. World Trade Organization*, WTO PUBLIC FORUM 2009. GLOBAL PROBLEMS, GLOBAL SOLUTIONS: Towards Better Global Governance*. 2009.

14. T. Piketty*, INDIAN INCOME INEQUALITY, 1922-2015: FROM BRITISH RAJ TO BILLIONAIRE RAJ?,* 2019.

15. OECD, *Africa's Development Dynamics*, 2018

16. François Bourguignon, *La globalizzazione della disuguaglianza*, 2012.

17. Christoph Lakner, Branko Milanovic, *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession*, World Bank Economic Review 30 (2): 203–32, 2016.

18. T. Piketty, Li Yang and G. Zucman *Capital Accumulation, Private Property, and Rising Inequality in China, 1978–2015,* 2019.

19. Confindustria, *ITALIAN ECONOMIC OUTLOOK 2019-2020 AND THE GEO-ECONOMIC SCENARIOS*, 2019.

20. Alvaredo, Facundo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2018. *"The Elephant Curve of Global Inequality and Growth.*" AEA Papers and Proceedings, 108: 103-08.

21. F. Alvaredo, L. Chancel, T.Piketty, E.l Saez, and G. Zucman, *World Inequality Report 2018*.

22. Martin Ravallion, *Inequality and Globalization: A Review Essay*, Journal of Economic Literature 2018, 56(2), 620–642.

23. Rinaldi A., Zelli R., *Misurare il benessere. La sfida degli indicatori alternativi al Pil*, 2014.

24. Hunter, Marnie (18 March 2022). *"The world's happiest countries for 2022"*. CNN. Retrieved 18 March 2022.

25. OECD, *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, 2020.

26. Kinga, Sonam, Karma Galay, Phuntsho Rapten and Adam Pain (eds*), Gross National Happiness*, Thimphu: The Centre for Bhutan Studies, 1999.

27. UNDP (United Nations Development Programme). 2020. *Human Development Report 2020: The Next Frontier: Human Development and the Anthropocene*. New York.

28. J.E. Stiglitz, A. Sen, J.-P. Fitoussi, *Report by the Commission on the Measurement of Economic Performance and Social Progress*, 2009.

29. R.A. Easterlin. *Does economic growth improve the human lot? Some empirical evidence,* in P.A. David, M.W. Reder,, Academic Press, New York-London 1974, p.121.

30. R.A Easterlin, *Will raising the income of all increase the happiness of all?* in "Journal of Economic Behaviour and Organization", 27, 1995, pp. 35-36.

31. Donella H. Meadows, Dennis L. Meadows; J. Randers; William W. Behrens III, *The Limits to Growth*, New York 1972, Universe Books.

32. F. Hirsch, *The social limits of growth*. Harvard University Press, 1976.

33. A. Antoci, S. Bartolini, *Negative externalities as the engine of growth in an evolutionary context,* Working Paper n83/99, 1999.

34. W.D. Nordhaus, J. Tobin, *Is growth obsolete?* 1971*.*

35. S. Kuznets, *National income, and capital formation, 1919-1935*, National Bureau of Economic Research, New York 1937,

36. Josh Zumbrun, *Sex, drugs and GDP: the challenge of measuring the shadow economy*, in "The Wall Street Journal", 2014.

37. OECD. *Growing unequal: income distribution and poverty in OECD countries,* Paris 2008; *Divided we stand: why inequality keeps rising,* Paris 2011.

38. R.G. Wilkinson, K.E. Pickett. *The problems of relative deprivation: Why some societies do better than others*, Social Science & Medicine 65 (2007) 1965–1978.

39. Trapeznikova, I. *Measuring income inequality*. IZA World of Labor 2019: 462 doi: 10.15185/izawol.462

40. Bourguignon, Francois. *"Decomposable Income Inequality Measures." Econometrica, vol. 47, no. 4*, 1979, pp. 901–20. JSTOR, https://doi.org/10.2307/1914138.

41. Ben Lockwood, Michela Redoano, (2005), *The CSGR Globalisation Index: An Introductory Guide*, Centre for the Study of Globalisation and Regionalisation Working Paper 155/04.

42. J.E. Stiglitz, A. Sen, J.-P. Fitoussi*, Report by the Commission on the Measurement of Economic Performance and Social Progress,* 2009.

43. Thomas Piketty, *Capital in the Twenty-First Century,* The Belknap Press of Harvard University Press 2014.

44. Haelg, Florian. "The KOF Globalisation Index – *A Multidimensional Approach to Globalisation* "Jahrbücher für Nationalökonomie und Statistik, vol. 240, no. 5, 2020, pp. 691-696.