Original Paper

The Theoretical Bases for Sustainability in Economics:

Considerations (Note 1)

dott. Giovanni Antonio COSSIGA1

¹ ex Presidente Collegio sindaci Policlinico Umberto 1, Universit à Sapienza, Roma, Italy

Received: April 1, 2022 Accepted: April 29, 2022 Online Published: May 6, 2022

Abstract

The guiding idea starts from the hypothesis that the anthropic principle can be applied to economic science, according to which nature and human beings would be involved in maintaining life on the planet. By following this approach, we can define good governance based on the results it obtains in the field of the economy, so we can speak of good governance if it keeps growth in balance and in slow progression. While a government can lose confidence if it exposes the community to the risks of the economic situation. Therefore, in the management of the economy, the economic cycle, which involves the risk of depression or decline of the GDP, must be understood not as an anomaly, but rather as a warning to the community that things in the economy are bad and that we must then adapt or change the guidance and programs in public management. The community, which is responsible for choosing the leadership and direction of government, is therefore the arbiter of the survival of mankind linked not only to constant and gradual growth but also to the commitment made to the promotion of science and research. There seems no doubt, in fact, that the community is the terminal of the relationship between humanity and nature and that the basic instrument of this relationship is science and research. The latter should be understood as the main tools because the relationship between humanity and the planet tends towards the neutrality of the presence of human beings on the planet. And, while waiting to reach this difficult goal, the community must do its utmost to reduce the degree of pollution of the environment. For the above, the idea becomes acceptable that the handmaids of the conjuncture, deflation and inflation, are messages that the community receives from nature, so that it becomes interpreter to the government of the economy that things are not going well and a worsening of living conditions. The community or rather its majority is the terminal of the relationship between human beings and nature and also the confirmation that there is a concordant purpose between human beings and nature for the safeguarding of life on the planet. On the other hand, the mediator of this relationship is research and science which are the tools to increase the harmony between humanity and nature, so that the presence of man does not degrade the environment and tends to a condition of neutrality of the presence of life.

Keywords

sustainability in economics, conjuncture cycle, community as responsible, monetary messages

1. Introduction

We are just a sand grain in the cosmic immensity, yet within a few billion years of the solar system evolution its third planet that we call Earth developed the life and then also intelligent beings. Now that long gestation which led mankind to observe and study the natural world that allows life, leads us to reflect on the reasons why appeared a living being who studies and analyzes his own mother. It could be deduced that our tendency to study and acquire knowledge is not accidental or dictated just by chance but is instead part of a predetermined project.

On the other hand, this belief also arises from the observation that the life of living beings (both human and animal) and plants (living beings as well) is linked to some fundamental laws that are pervading the universe and that remaining constant in time and space have guaranteed the life development on our planet. The hypothesis has been advanced that our universe would be only one of the countless possible universes in which the fundamental laws of physics could assume all the possible combinations. Now, apart from the observation that this hypothesis is currently only imaginative because is beyond our control possibilities, the fact remains that this possibility is anyway irrelevant to our reasoning. What matters instead, is that the fundamental constants of physics make possible the existence of universe and also of our planet, which in its evolution of billions of years has evolved until to become the seat of animal and plant life, as also of intelligent beings who study the nature that surrounds and welcomes them all.

Therefore, the universe as we know it and the life as it developed on our planet could not exist if, even for infinitesimal variations, the constants of physics would be changed with respect to the correct values. It is the so-called "anthropic principle": in its "ultimate" formulation, this anthropological principle states that there would be no sense in a universe capable of creating intelligent life that could not last long enough to be fully developed (Note 2).

The question we can ask now, is whether the anthropic principle can be applied to the science of economics. *Etiam*, if there are reasons that lead us to believe that even towards the economic systems there is an interest of the whole environment for the life preservation. Therefore, the nature would not only have an interest towards the creatures it feeds but it would also somehow participate in making the presence on the planet of intelligent beings long-lasting. An interest that we could call **the anthropic principle of the strong economy**.

Once this strong principle has been characterized in this way, it might be thought that there should be a reason for this preference. In the sense that the destiny of human beings is to deepen their knowledge of mother nature, in the name of safeguarding the mutual relationship between humankind and natural

environment. Therefore, also regarding the economy an ultimate anthropic principle could be recognized as an unavoidable connection with the relations between humanity and the whole environment.

On the other hand, looking from the economic point of view can offer a privileged observation position in order to check the relationships between humankind and nature. We should consider that economics is after all the science that studies the social relations, as well as the related problems regarding the wealth and income distribution. Basically, it investigates precisely the delicate relationship between the nature that offers the resources and the humankind that disposes of them to survive. As saying that we investigate the relationship between the welfare or poverty progress and the condition in which the scientific research is currently found, and to which we trace back the quality improvement of the relationship between humanity, economic development, and progress in harmony with nature.

It follows that we can establish a continuous and constant relationship between the research and science development and the progressive adaptability of economic and social development on the path of respect for the environment in which we live. This finding brings with it the mutual interest of the nature that nourishes and the humanity being nourished, towards a real improvement in the social and economic condition, which basically means a growing respect for the environment. That is, there must be a legitimate and continuous mutual interest of nature and humanity towards an improvement in social relations and a progress in welfare, which are the essential condition for the science progress towards a development adaptation in harmony with the environment in which we all live.

Now, there is no doubt that there is a mutual interest in terms of welfare and harmony of relationships that brings us back to the strong anthropic principle, although the existence of this interest is not enough to certify the existence of ambivalent forces going in the two directions of nature towards us. and humankind towards nature. The fact remains that there are interventions with special features and a relative action independence that are reproduced in time and space without substantial changes and with repetitive modalities that fall within the sphere of study and evaluation made by the economic science. Repetitive phenomena that we attribute to the responsibility of the leaderships in charge of economic management, because errors and management inadequacy are causing the emergence of price reactions, such as inflation.

During the 1960s, therefore a few years after the World War II, the global economy was traveling at a high pace in the name of reconstruction. An unsustainable pace already at the end of the decade, as demonstrated by the creeping inflation that began to spread in the various economies at that date. All the attempts to maintain a development that was no longer compatible had an effect contrary to the expectations, that is to corroborate instead of containing the creeping inflation. Nevertheless, the attempts made by governments to control the price rush through monetary policy had the advantage of slowing down the price speed by an average of 5%. A precarious balance, anyway, that suffered a strong shock for the sudden increase in oil prices during the mid-seventies.

Attempts made by the economic policy to safeguard as much as possible the development pace under the blows of the oil shock, however, contrasted with the restrictive actions of monetary policy, albeit relatively moderate. Therefore, it failed the attempt to balance the development corroborative action implemented by economic policy together with the impeding action made by monetary policy. With the result of a strong acceleration of the inflation pace (Note 3).

Therefore, the government of the economy in contrast with the tensions of the conjuncture cycle can be responsible for the rise of price inflation, just in the same way it was responsible at the time for exacerbating the market inflationary tensions. For example, by trying to fight the current inflation with a faulty economic policy that moved in opposition to a somewhat supportive monetary policy. In other words, it seems that inflation is the heavy pledge to pay when governments believe they have the cultural and instrumental means to ensure an economic growth without troubles and generally following a straight and slightly increasing line (Note 4).

But this hypothesis of good governance and citizens who are satisfied with the economic management is a potential utopia because the development of economic systems generally follows a trend with ups and downs, that is, with recoveries and recessions occurring without a particular sequence. Although there have been long periods of accelerated and extended development since the end of Second World War. Only to fall then into the conjuncture cycle trap that ends up becoming the signal of a bad governance.

But are things really like that? In the sense that good governance could really maneuver the economic management to guarantee a linear and slightly rising growth. But this benevolent hypothesis that does not occur in reality, where is prevailing the presence inside economic systems of irregular cyclical tensions. The question arising at this point concerns this anomaly of the economic ups and downs established, instead of a constant and increasing rhythm over time. We should consider that the community judges the economic government depending on the balance achieved or not, if there is an expected growth or recession; will be considered as good governance, a management leading to the economic system growth, and *vice versa* if the results instead are disappointing.

There would therefore be a discontinuity between the governance of the economy, struggling with the strength of a troubled economic situation, and the expectations of the community that awaits an improvement or at least the maintenance of the *status quo*. This contradiction can be explained by introducing the hypothesis that there is an economic development path which, if and when followed, can allow a maybe weak but constant growth over time. That is, a growth that will let us overcome the development gaps imposed by the economic situation.

Therefore, if there exists -and we can actually verify it- a privileged path along which the management of the economy can accumulate a slight but constant growth, then we should find out why and to what purpose there is a sub-world where the development is subordinated to the strength of economic situation. But not only. We should also understand how we can manage to pass from one world to the other. In other words, how works the passage from the world where the objectives of the rulers meet

the will of the community, to the sub-world where the relationship between community and rulers is somehow complicated.

In this research we can find some help in the substantial difference existing between the compatible regularity world and the incompatibility or discontinuity world, as well as between the actual results of economic management and the community's expectations.

Let's just think about the twenty years after the Second World War but also the decade from 1985 onwards, when the US economy achieved a period of prosperity and constant development, especially during the Clinton presidency. Those were periods during which the irregularities of economic situation were attenuated or even disappeared. These were periods, therefore, in which there was no room for the reactivity of the economic situation nor at the same time for the alterations of the monetary system, inflation or deflation.

Therefore, what are the reasons why when staying in the sub-world of incompatibility, some phenomena affecting our economic management are generated. It should be observed that the monetary alterations in the sub-world of incompatibility do not have an ascertainable direction, or a predeterminable development. The economist has the professional task of finding the tools to control a certain phenomenon and try to solve it. Above all because the government leaders in power fear the dissent provoked by inflation or deflation in the feelings among the community, who fears instead the loss of jobs as a result of the announced inversion of conjuncture cycle, and also of the alterations in the basic prices.

Let us add that the fall in the sub-world can be avoided, provided that we follow the natural path allowing the management of an economy in constant and gradual growth. Well, how to identify the narrow path that can lead to the expected development consistency? The events of the last century show, for example, that after the Second World War the whole economic world has experienced a period of not only constant but even sustained growth. And we could continue with the examples that would show a singular ability to achieve a recovery even extended after a period of serious conjuncture reversal.

We must therefore pay due attention not so much to the adverse economic situation but rather to the issue of slowdown in the development pace, whatever the reason that caused it. Therefore, we should try to understand if there is a reaction possibility from the economic system after a sharp decline in economic activity, such as the lockdown due to the epidemic, so that we can expect a period of even extended recovery of development.

Answering these questions essentially means re-examining the anthropological principle mentioned at the beginning of this exposition. In other words, we must admit that nature would not only have an interest towards the creatures nourished with its resources but would also be somehow involved in the effort to ensure that the presence on the planet of intelligent beings is long-lasting. In other words, we must admit that among the universal and constant laws present in the world of physics, some constants concern the coexistence of human beings and the activities they carry out on the planet to survive.

According to this parameter we will have to further investigate on many issues: therefore, about conjuncture cycle, monetary alterations, development limits in relation to the natural world around us. And moreover, on the issue of wealth and income distribution in an economic system and, by expanding our sphere of interest, on the fair and equitable sharing and distribution of Earth's natural resources, but also cultural and knowledge resources, between the continents.

1.1 The Good Economic Governance: Limits and Opportunities

A good economic governance is certainly what guarantees a constant growth in economic activities, albeit at a relatively slow pace. On the other hand, those economies which are running too fast should be examined in order to evaluate opportunities, because they are often just a sort of anticipation of development potential rather than a real growth lasting over time. Moreover, it should be considered that the episodes of accelerated development occur under special conditions. We may recall the post-World War II period during which the reconstruction gave a decisive boost to the acceleration of the economic growth rate, leaving however during the 1960s an inflation legacy then spreading globally. Another case that is both singular and long-lasting, has affected the Asian continent. In this case, were anyway combined the delay on the path of development accumulated by the continent, by China in particular, and the possibility offered to industries at a global level to produce in territories where the labor cost was very low; we must admit, however, that there was expertise and a good cultural level.

Also regarding these last episodes, we can note the hand of nature because we must admit that the natural scenario, that is the scenario which would have been obtained by following the guidelines of a constant and relatively low growth, shouldn't admit the resource centralization to the detriment of some continental areas. *Ergo* we are moving -with a speed to be evaluated- towards a condition of greater balance of resources between continents. So, the real important leap that some regions of the Asian continent have made in the space of twenty years or so is also due to the *natural* tendency to redistribute resources among the different areas. At this point we must expect that the accelerated development process will affect Africa or rather some African areas, towards which the role of foreign investments on the path of development will be hopefully intensified (Note 5).

So, if we indicate as a good governance that which manages to keep the unbalanced economy of a country on the path of constant growth and in some favorable circumstances even to recover, according to a sustained pace, the gap on the development path, we must realize that this just means following the natural order. That is, a good governance would be the one that manages to keep the development course constant and adequately durable.

From this point of view, the good governance chooses the *laissez-faire*, that is the drift offered by nature which - as we may assume - has incorporated the universal and constant laws for a growth of economies without any trauma and in line with the objectives interesting the whole humankind. Dante superbly sums up all this with these words: "Consider well the seed that gave you birth: you were not made to live your lives as brutes but to be followers of worth and knowledge." (Note 6)

At this point we shouldn't fail to mention that in the expectations of our neighbor, of our fellow citizen, that is in all of us, there is the expectation/hope that things in the economy will be linear and without troubles. That is, we consider it normal and fair that the future world may look like the present world with regard to the available resources. In short, we could expect that the purchasing capacities offered by our present activities can remain unchanged without any abrupt change also tomorrow. That is, in our unconscious it is clearly engraved the thought that the natural economy evolves at a slow and constant pace and that therefore we shouldn't expect any significant news. It is exactly this natural certainty present in all human beings that allows people to have a clear idea about a good governance: that is, if the smooth course of the economy is respected, there will be no lack of approval for the government in charge. Otherwise, therefore, when the economy and prospects are worsening, the dissent and negative judgment on bad governance will increase

Therefore, the community's judgments use the parameter of an ideal condition, according to which growth remains constant even if it is generally low. A judgment mode therefore based on an essentially ideal parameter, which unfortunately is not at all usual for everything related to the economic activity. However, since we are talking about something ideal it is most likely that this form of preliminary judgment would then be adapted to the real situation, which obviously is often very far from the growth constant course. The judgment, therefore, is completed considering the experience that each one of the community members has lived and therefore articulated into several facets.

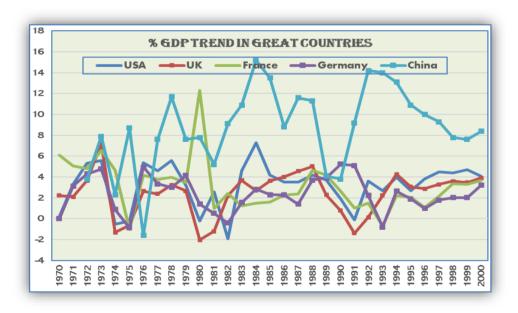


Figure 1. GDP trend in Great Countries (in percentage)

Source: Elaborations on OECD data

Apart from the questions on the judgment formation inside a community, it is important to point out that the instinctive recourse to the ideal parameter of a constant growth essentially indicates that there is, though uneasy, an economic path that runs in the narrow corridor of constant development. Furthermore, this preliminary judgment parameter of the community about the economic condition, emphasizes the fact that the good governance should basically just follow the natural indications of development path to remain within the parameter of constant growth. A good governance would therefore accept the natural indications at the economic level and would activate a sixth sense suitable to grasp the implicit and explicit messages coming from the environment.

Of course, it may sound somewhat simplistic to define a good governance by simply observing the economic potential, that is, if it is constant over time or rather taken by the conjuncture involution. But we must consider that the choice of an ideal parameter consisting of the economic growth following a linear path, is because this kind of growth would allow humankind to be in harmony with the whole environment. Therefore, basically we have a good governance when it is in good harmony with the 'creation' covering the entire planet, a good governance which therefore responds to the obligation that humankind has towards the planet: to respect the conditions that keep this planet suitable to support and sustain the life of plants, animals and human beings.

This must certainly mean that the respect for natural world around us is the first essential reference point for an economic management tending towards the good governance, which therefore brings together the primordial instinctive mood of the community with the practice of respect for nature. Certainly, a kind of harmony that is quite easy to imagine but which is not as easy to achieve in our everyday life. Just think of the important issues relating to the de-carbonization of our societies that require a full and deep rethinking of the energy production, then abandoning fossil fuels and thermal engines in favor of renewable energy sources. The price of this passage is quite high because it deeply affects the multifaceted working world and the workers' skills, hits the taxpayers' pockets, worsens the gap in the wealth and income distribution, thus ending up affecting the weakest subjects with the growing costs, that is, the least favored and poorest families.

The problems are even further complicated by the fact that the effect produced by the economic growth in the instability sub-world, therefore outside the path that we have identified as a sign of good governance, is causing among other things a growing malaise in the area of poorest and less favored people. This malaise is due to the double occurrence of lack of jobs and of wages unsuitable for the family needs. In other words, leaving the path of good governance also involves an unreasonable and unequal allocation of resources within the society and this causes many social contrasts in addition to economic hardships. These conflicts remain irremediable if the management of the economy will continue to stay in the area of instability and incompatibility with nature.

In fact, we must admit that, in the case of good governance, the linear trend of development contrasts the formation of speculative processes that are using the conjuncture involutions to accumulate wealth for the benefit of the already wealthy restricted minority. Basically, that great wealth is taken away from the real economy. The economy's pace allows the formation of upward or downward alternating tensions in development, which are suitable for new speculative activities, i.e., just virtual and then

unsupported by market values. Therefore, an alternative development line, mainly speculative, destined to disappear when the conditions of the real economy turn for the worst.

Nevertheless, the speculation not only drags into the whirlwind resources that should be allocated to the real economy, but it will also damage the real economy with the troubles resulting from the unavoidable collapse of values. The flood of savings that somewhat sustained the speculative madness, cannot be returned, and thus is creating the basis of a financial crisis always to the detriment of the economy. Moreover, the wealth accumulation, which is supported by speculative processes, is not de-cumulated during the periodic crises that wipe out the virtual economy created by the speculative whirlwind. With the result that over time the process of wealth accumulation within the usual privileged area continues to the detriment of the less favored classes who are affected by a reduction of work incomes and even of job possibilities (Note 7).

All this to say that the exit from the narrow path of constant growth is easy to be noticed because at its exit from the healthy path, the economy gets worse, loses its regularity and the development begins to be troubled with ups and downs. But it is not enough. In fact, we have found that the entry into the economic cycle scenario is causing other problems that essentially slow down the development course. Starting with the erroneous and perverse distribution of resources (i.e., wealth and income), both at a community level and at a more global level, between continents and large areas. Furthermore, the birth of the economic cycle scenario brings also another calamity for the development fate. In the sense that it limits its potential, thus introducing the monetary messaging into the economic landscape.



Figure 2. Share of Income Earned by Top 1 Percent, 1975-2015

I call it monetary messaging, because it is above all a warning signal given to communities to let them take note that the exit from the narrow path of constant growth has now stabilized and therefore the return to the lost scenario of linear development will require sacrifices. First of all, as is unfortunately usual, at the expense of those less favored social groups on the poverty threshold. Obviously, this is not just a bad and sad fate always falling upon the most disadvantaged area, but a warning that their modest resources can be affected by the bad trend of the economic situation. But not only: this is also a warning signal for the governments that should rectify their decisions in order to support that population area most exposed to the economic situation inversion and to avoid the starting of a growing dissent among the masses about the incorrect management and the careless distance from a natural inspiration of economy.

1.2 The Good Governance and the Wealth and Income Distribution

Therefore, a message that is very unpopular due to the concern it creates and that should be used by the good government for interventions to support the weakest social categories. The messaging I'm talking about and that comes from nature, regards the monetary alterations (i.e., inflation and deflation). These are messages going from nature directly to the community who, through the monetary channel (i.e., prices), will learn without distinction of gender or social status or whatever else that some tensions are arising at the price level. And these tensions are coming not to disturb the already altered economic world but rather to awaken the dissent of social groups towards the management carried out by the economic leadership, so that they can change course for the return to the natural path of a constant development.

As already mentioned, the scenario with these alterations involves a damage that is maximum for the less protected categories. Therefore, the governments should above all think about protecting this unfortunately growing area of population. The exit from this inflationary spiral is far from simple, as shown by the long war that governments at a global level conducted to fight inflation during the twenty years of the sixties and seventies, and then a similar scenario seeing the global economy struggling since 2000 with deflation. Precisely because the messaging of inflation or deflation comes when the divergence from the ideal development path is by now out of date, a good governance shouldn't be just thinking about how to support the economic conjuncture. Because by doing so, it could be done even the opposite of what it should be done instead; there would be, in fact, an impact against the natural indications that are instead asking for a development pause in order to purify the economy from the direction errors made.

On the other hand, we can note that the initiatives taken to support and help the less favored population are somewhat balancing the perverse ratio of the wealth and income distribution, and therefore essentially allow from below (that is, not in favor of the area already protected by fate) an increase in personal incomes. We should consider that the system's reaction is so high precisely because of the excess of inequalities that the exit from the linearity path entails and puts in place; therefore, making

actions to partially recompose this wrong balance reflects the natural request for a gradual return to constant growth, with a parallel reduction of monetary alterations.

It can therefore be assumed that the appearance of signals from the economic conjuncture in the economic scenario, is a first sign that the economic system has diverged from the balanced line. If in addition to that discontinuous growth there will be the starting of monetary anomalies, such as inflation or deflation, it means that the economic system has fallen into a condition of greater imbalance. At this point, if in the context of a non-linear growth scenario, the leadership decides to fight the recessionary trend of the economy, this behavior can take on the meaning of wanting to indulge once again in supportive measures favoring the most privileged categories. Once again, to the detriment of the less protected areas of the community.

If the condition of imbalance worsens and therefore monetary alterations appear in the scenario of a country's economy, such as inflation and deflation, these alterations unfortunately affect above all the less privileged categories, and it is the duty of good governance to find the necessary resources to correct the wealth and income bad distribution by measures in favor of the less protected categories.

Therefore, the attempts to counteract the inflation that reverberates on prices are able to mitigate the inflation acceleration only if the interventions are conducted to the advantage of a better and wider redistribution of resources in order to achieve a greater equity. If this path is not followed but instead actions are made to fight the increasing prices through the usual recourse to restrictive monetary policies, some unexpected consequences may arise. Like, for example, the inflation that could slowly fall, while the curve of the economic situation drops even lower but in contrast with the leadership's desire to contain the Gross Product decline.

The intervention to correct the deviation of the economic system from the narrow path of balance, therefore moves on two different levels that do not proceed side by side. On one side there is the natural demand that pushes for a reduction of environmental pollution, as a necessary protection of life on our planet. On the other side we find a social problem that worsens due to the gap in resource distribution, always to the advantage of the wealthy classes and to the detriment of the less fortunate classes, who are living on the poverty line.

Now, it is evident there seems to be a large gap between the natural demand that is watching pollution with the damage it could cause to the whole life and, on the other hand, the social problem dealing with the issue of the allocation of resources: both are apparently moving within the community's influence area. Yet, the two instances, the natural one and the social one, both move on the same area of the gap affecting the development path. In the sense that the first (the natural demand) is announced through the conjuncture alternating tones, while the second (the social requirement) finds wide resonance within the community that looks at these social injustices and judges they no longer have a single reason to exist. But both instances converge in the community, who is given the task of being the primary receptor of dysfunctions of the economic system, but also the active subject entrusted with the task of changing the course of irregular economy, by using his criticism as action instrument. An

instrument that when a clear majority of the community is involved, can hardly be bypassed by the power, even in the case of authoritarian and autocratic governments.

Moreover, it seems that between the two signals of economic conjuncture and social divide, a sort of instability and incompatibility progression can be identified. So that the breaking of the orderly development line may depend on the increase of pollution level, as if the natural mechanism to recycle the polluting materials becomes somewhat inadequate to transform them. At this point, as it is happening right now and also in recent years, the polluting materials that cannot be naturally recycled in a relatively short time make it necessary to pause the economic systems. Such a pause means reducing the polluted masses linked to (or produced by) human development.

The pausing mechanism is activated through the conjuncture cycle, which performs a double action. First of all, the community is informed on the things of the economy no longer in harmony with the linear path and, therefore, starts the conjuncture cycle inversion, which means a pause in development in order to dispose of the excesses of polluting material. As saying that the conjuncture cycle acts by starting a cycle of recoveries and recessions that don't have any recurrence character and have instead a variable trend based on the state of the economy. That is, we have shortening recoveries and extending recessions in response to the increase of incompatibility with the environment.

Now, it is evident that with the worsening of economic cycle, the community is asking for interventions aimed at safeguarding jobs and incomes, especially of the poorest groups. Yet, the natural way is not the one in which we try by any means to block the economic recession, but it is rather the one in which we allow the required natural pause, because it is the only one which can gradually bring the economic system back on the path of linear growth. This is why inside a community the voices about the choices to be made in economic matters can also diverge. Because the weakest part of the population will protest for the prospect of job losses and increased poverty. But we shouldn't forget that the community is also, and above all in this case, the ultimate interpreter of the relationship with nature about the economic issues.

Therefore, an important portion of the community will realize that a good government, attentive to the results to be achieved, must avoid those choices which are in opposition to the natural direction, in order to prevent a further worsening of the situation. *Ergo*, as already mentioned, any operation tending only to oppose the natural course of the economic cycle will be read by the community as an erroneous attempt to maintain the status quo in favor of the social classes already privileged. And not only that. Because if we try to oppose the natural system, we will have a worsening of the status quo and consequently the raising or reinforcement of monetary alterations. in fact, both inflation and deflation should be read as a reaction to the attempts to oppose the natural way. This means that we will record a worsening of social relations, due to speculative actions that cause a degeneration in social relations because it is responsible for the wealth concentration among the privileged classes and, at the same time, for the reduction of resources destined to the poorest part of the community.

Indeed, it is not unusual that the financial crises arising at the end of speculative takeovers have occurred with increasing insistence since the 2000s, that is, when the global economic system diverged towards deflation. Deflation is a message warning the community that the economic management is getting worse and that the economic world is moving away from the linearity of development. The response of the institutions is often the attempt to balance in some way the stagnation or the price fall through a supportive monetary policy (e.g. liquidity increase and interest rate decrease). These decisions would run in opposition to the natural inclination that requires a pause to correct anomalies in the cycle and also in resource distribution.

Due to this contrast, we can see that these options do not produce the desired effect. Indeed, it is erroneously believed that the push given by assets and stock exchanges under the stimulus of low-cost credit is an effect preparatory for an upturn of the depressed economic cycle. Actually, there is instead a split between the financial management that moves beyond market values and the management of real economy that suffers the degradation of capital taken away from the market and absorbed by the speculative rush. The growing value of assets and stock exchanges under the improper speculative stimulus creates a virtual and temporal value, which will be dissolved when the rush of excesses will end and the speculative extra values will therefore collapse. This scenario is not only the complete opposite to linear growth but above all feeds also a growing unequal gap in the ownership of wealth and income. More resources that are then attracted towards the wealthy classes who resort to speculation thanks to the low-cost credit. A growing social malaise is actually rising due to the wealth increase at the top of society that dramatically contrasts with the poverty affecting the base of community.

In these circumstances, unfortunately widespread, the best option of a good governance is certainly not that of accepting the speculation practice, with the illusory hope that the market emphasis on some goods could be an indirect advantage for the real economy. The good governance should act by definitely choosing two specific directions.

First, it is necessary to do interventions to mitigate the imbalance accumulated in the wealth distribution, by supporting incomes coming from work and by increasing the employment level. Since the improper development of speculative values gives the result of reducing the real value of wages, in particular regarding young people and women, it is essential to support the wage bargaining and, last but not least, to establish the minimum wages by sector (e.g., with recourse to average wages for specific activity sectors). Furthermore, it is necessary to support the incomes of the poorest and most deprived part of the community, with the concurrence of the highest incomes who should be asked to contribute autonomously (e.g., by offering advantages in terms of taxation for the following year) or even through a new tax, to cover the new and greater charges.

Second, the rate decrease in symmetry with the price fall during deflation is an operation that must find a limit. It is necessary to prevent the falling interest rates from following the declining trend of prices, which is the expression of a growing instability during deflation. It must be clear that the economic

weakness is not cured with a deep cut of interest rates, which actually risks to start a speculative use of low-cost credit. Above all, it would be needed not to allow the rate decline to continue until interest rates are zeroed, which is precisely what makes the low-cost credit available. Given the low tone of the real economy, the excess liquidity created by the monetary authorities and the very low cost of credit, all together become a fertile ground to start a speculative process.

As mentioned, speculation takes away resources from the real economy and unsettles the correct income distribution within the community. In addition, the mechanism dragging incomes upwards to the detriment of the remaining part of the community does not end, even at the financial crisis outbreak that follows the speculative affair. In fact, the borrowed money that is not repaid under the impact of financial crisis at the end will damage once again the real economy, which is heavily affected by these post-speculative burdens.

It might be thought that the good governance, faced with these challenging tasks, is alone. In the sense that the community could demonstrate its widespread dissent about these solutions somehow difficult for ordinary people to understand. Yet, if- as I was saying- the good governance proceeds with reducing the inconvenience that the crisis entails for the community categories most exposed to poverty risk, we should see a more understanding attitude in the largest group. The problem at this point, in fact, does not concern the attempts to return by any means to growth, but rather the risk to further slip into the crisis due to the wrong attempts to somewhat sustain the cycle. The conjuncture cycle, therefore, should focus on the natural push towards a pause or even a real recession in order to allow the pollution excesses caused by our presence on the planet to be at least partially eliminated.

Going against the tide, by following the pressures coming from the favored part of the community, means once again giving substance to the process of transferring the greatest part of wealth and income towards the highest part of society. A process that cannot (and should not) occur during the good governance phase in which the economy travels according to a constant and linear growth, which by convention cannot accept to support these games. To return to a stage of relative social peace in terms of income distribution, the good governance will have to find the consent of the majority inside the community in order to tighten up and to allow a period of pause or economic recession. Then the reaction of speculators will be left to crash against the shield of common sense expressed by the majority.

From a democratic point of view, the government is less exposed to the political pressures exerted by the wealthy and powerful classes, which have the sole interest of protecting their own capital and incomes and generally do not take care about the social peace, which is instead indispensable for a gradual return to the linear and constant growth. In any case no government, even the most autocratic and authoritarian, can completely disregard the opinion of majority in the community. However, the power to choose the leaderships remains in the hands of majority for any form of government, even when the expression of this favor for an esteemed leader cannot be soon realized, maybe after periods of confusion and social dissent.

The democratic principle assumes that the majority in the community has the ability to choose a leadership that can manage the economy. Now it is clear that this faculty must concern an intrinsic quality of human beings (but not only) with respect to the common goal aiming to a linear and constant growth of the economy. Now, since this linearity of economic development is linked to the narrow path of a kind of growth that safeguards the nature around us or at least mitigates the damage caused by human activities, the chosen leaders must possess a natural inclination towards the compatible development at the highest level. In other words:

- whether in the leadership there is awareness of a development line that is the only one allowing the growth compatibility and constancy in a development that otherwise would be impossible.
- if this development constancy is in the expectations and aspirations of human beings about the economic management.

We must necessarily believe that there is an implicit or explicit dialogue between human beings and the natural world around them. All this to affirm that life expectancy for the future generations is not lost because of wrong choices without return made in the economic policy.

At this point let us ask ourselves why, despite these mutual understanding networks between humanity and the environment around us, and therefore the probable need for good government to win its battle for primacy, this often doesn't happen. In this regard, we should understand that the communications we are talking about are often just intuitions arising inside us through our senses. I mean that the 'miracle' we are talking about is simply the formation of a shared balance in the majority thought within the community, that makes us all converge not only towards the common objectives but above all in accordance with the natural diktat.

Now, it is possible that this majority uniformity is formed within the community, among other things, through the mutual exchange over the time of thoughts and opinions. Ergo, shouldn't be overlooked the hypothesis that between the inspiration coming from nature and the perception of this inspiration by human beings some time may pass, even not so short. It follows that those deviations from the optimal path -which minimizes (does not eliminate) the damage made to nature on the way to economic development- can be quite frequent, as in fact we can testify in everyday reality.

The problem, therefore, wouldn't be the coincidence between the implicit pressure of nature and the response given by community, but rather the adaptations that the leadership and the community will decide to take together to bring the development of a territory back of linear growth. A good governance, therefore, is the one that above all directs the development bar in the right direction, that is, towards the respect of environment. As saying that the good governance will often be faced with the problem of economic cycle, with monetary alterations (inflation and deflation), with the social malaise produced by the unnatural wealth and income distribution. And the proof witnessing a good governance will rely exactly on the response given to the constraints imposed by the incompatibility in the context of confrontation with the environment around us, that directs us towards a path of linear and supportive development.

2. Method

2.1 The Conjuncture Is Basically a Compass for a Linear Development

The linear and supportive development path has an alternative that we will call simply *sub-world*, because it takes out of the path of relatively compatible development and is opened to anomalies and irregularities that are warning us that we are on a very risky economic path. The anomalies that we meet inside the instability sub-world are mostly messages directed to the community or automatic mechanisms for the correction of incompatibility. As already mentioned, the recipient of these warnings, in the form of messages or development curve, are always and in any case the communities who have the implicit but non-delegable task of recovering the development vessel deviated from the right path. Because basically, the nature leaves the choice of the path to be followed on the way to development, in the hands of community. Nevertheless, the adverse signals will be increased if the correction is too slow in finding the way of development linearity and solidarity.

Here comes, therefore, the conjuncture cycle, which has no other paternity than the one coming from the constant natural laws; the economic cycle, however, is not constant but changes over time. A variability that is related to whether the penalties required to return to a linear development condition, are respected. Thus, the economic cycle at its appearance on the economic scenario includes recovery periods and short periods of recession. As mentioned, the appearance of the conjuncture seems to mean that the economic system needs a period of pause to allow the natural system to contain the formation of polluting waste. This initial approach tends to worsen, if the leadership managing the economy does not accept the request for a pause and tries to maintain the constant and linear pace that in the meantime has been lost.

If the response of the leadership is not convergent and the request for moderation is not accepted, then we may observe a change in the economic situation rhythm, with a reduction of recovery period and the parallel lengthening of a mild recession phase. This change of the conjuncture cycle trend will continue until the recovery phase disappears completely, while the recession will be extended and worsened. We should therefore believe that in such a scenario some majority may be formed in the community, which aims to renew the economic policy program and to replace the current government with a renewed team that is capable to face the difficulties of the economic system. In short, it is necessary to find the consents needed to allow the change of economic direction, in order to follow the natural imposition that requires the removal of pollution excess, which could threaten the existence and survival of future generations.

The conjuncture, which disrupts the linear pace of relatively compatible economy, must be considered as a compass capable of indicating that we entered into the instability sub-world. In other words, this economic compass indicates that the pressure exerted by our presence on the planet is exceeding the warning limits and that we are altering the atmosphere balance that allowed the development of plant, animal and human life on the planet. The problem is therefore to reduce the massive emissions that are altering the air: the same air we breathe.

The answer to this problem is the change of the development rhythm that passes from the linear basic model to the sinusoidal model, made of ups and downs along the development line. A model that introduces the recessive pause into the sub-world scenario. It therefore requires a periodic pause in the development process, on the assumption that a slowdown in the growth rate may contribute to the disposal of excess pollution.

We generally say 'pollution' to indicate the huge damage that human beings can cause to the environment in which we all live (that is, also other living beings, such as plants and animals). However, the fact remains that, in the defense mechanism implemented by the universal natural laws to control the relationship between humankind and nature, an essential role is played by the economic cycle and more specifically by the reversal of the economic cycle trend. As saying that the defense imposed by the nature itself to protect life on the Earth is based on the periodic pause of development. A periodic pause obtained through the recession of the economic cycle, which must be sufficient to contain at least the excesses and abuses produced by the human presence on the planet.

With the scenario imposed by the economic cycle, the fate of the economy is firmly in the hands of community. In fact, it is the cycle involution that has become sinusoid to give the information that the constant development path has been left and the result is therefore the lack of coincidence between the instinctive expectations based on the idea of a "tomorrow like today" and the new reality with its changes which is actually the new perspective. This is to say that the fate of the economic system development remains anyway in the majority expression of community. That is, there are no arcane universal laws that control the tones and rhythms of development, but only and simply the feelings and aspirations of the community that decide for the fate of economic growth in each territory.

We can deduct from this that if we have an instinctive expectation about a "tomorrow like today", that is, an expectation of linear growth, then there should be a real possibility to follow a linear and relatively compatible development path. Nevertheless, this possible reality finds its limit in the passage to the incompatibility sub-world, which allows us to identify the cause, the real entity promoting this slide towards the economic cycle. Now, there is no doubt that the economic conjuncture represents a constraint for development that is even stronger if the economic instability and incompatibility are increasing. A constraint that results evident with the recession of economic system which, thanks to this safeguard mechanism, imposes a slowdown in the development process. Since the conjuncture is a danger signal coming to us from the nature, we must reasonably admit that its purpose must be somehow linked to life on the planet. At the end anyway, the universal constants of the world of physics are exactly those necessary for the life birth and development on our planet (Note 8). We can equally say that the economic cycle is a compass for the life protection because it informs us about the state of our relations with the environment. But what is more important is that it can impose a direction change in the management of governments and collectivities that have been little sensitive towards the degradation suffered by the nature: a degradation due to the presence of human beings and life in general on the planet.

The focal point is therefore that the conjuncture cannot be considered a normal condition of economic systems, but a form of degradation and a deviation from the linear and constant growth that should instead represent the normality of a development profile. For this reason, the economic situation is viewed with some apprehension by the community that sees its expectations on income and resources worsen even before the economic events actually happen. Moreover, the recovery of the cycle could be mistaken by the community for a return to the normal constant growth and not for what it really is, that is, the beginning of the cycle downward path, on the assumption that the optimists would prevail over the pessimists.

On this subject, even prominent economists have tried to identify a possible recurrence of the economic cycle, in particular to predict the timing of a possible recovery after a recessionary period. As I was saying, however, there is no time constancy in the unfolding cycles that are animated to counteract the growing discomfort of natural world, due to the increase of polluting materials.

It could be argued that the pollution issue is certainly not the only one that can lead the economy to jump into the instability sub-world. I have no doubts about it. But here we are focusing on the issue of survival of human beings who in the end are living in a natural context, which after billions of years would seem to have to adapt to the problems related to the life of living beings. That's why we are examining the anomalies of the development path; anomalies that could date back to the general subject of the preservation of life. We should focus then on those that don't seem to have a clear and identified direction but are rather the result of universal constant laws that seem to have the aim of preserving our world from collapses that would jeopardize the survival of our future generations.

About the subject of the 'compass' which -as mentioned- with its warning signal should help the communities to select the best leaderships for the economic management, it can be observed that the economic cycle is often extended for years and can also give ambiguous messages. Thus, the long recovery phase can be mistaken for the happy return to the linearity of constant development. On the other hand, even the recessive phase, if too brief, can be mistaken for a temporary minor obstacle and not for a real danger signal which is alerting us on the man-nature balance.

As saying that the conjuncture cycle is certainly a strong and incisive sign for the evaluation made by the community and is therefore essential because it is the only means by which these constant laws we were talking about, impose a pause on the economic system in order to prevent irreversible damage to the environment. In other words, the natural system offers no other control mechanism to preserve the good relationship with life, except the conjuncture cycle. The conjuncture cycle, therefore, has the task of stopping the economic system, so imposing a pause on the development way, in the difficult task to find a balance between environment and human life.

I must say that the implicit messages that the human beings in different territories receive about the prospects of the economy in their own countries are somewhat obscure: that is, it is unclear how they are produced. Yet, we cannot exclude that each one of us implicitly receives, as from a remote prompter, various sensations that help to define whether the economic prospects in our territory are

good or declining. It is certainly true that we have a series of direct and obvious signals from the everyday life, from the opinions exchanged with our neighbors, from reading the news and from the information relating to the state of the economy. But we must admit that even our neighbor, who may not have the complete view of the news or a good knowledge of the *sad science* (as the economy is called, perhaps somewhat unfairly), shows indeed a good understanding of the real state of the economy, though in a synthetic way. Anyway, let's say that the first element of the information we all use to draw our conclusions on the economic prospects, are the prices and our purchasing power compared to the recent past.

This argument leads us to another strong and commonly understood signal, namely whether prices are stable or not. This is the topic of the next chapter, but we introduce it into our reasoning because the communication sent through the conjuncture cycle may not be effective enough nor duly timely. These traits of effectiveness and timeliness are instead the primary characteristics of prices relying on the certainty of stability, in their commitment to give univocal and direct messages to all the members of a community.

Staying on the topic of the conjunctural cycle, other questions arise on its effectiveness as a tool to help the economy to regain the path of a linear and long-lasting growth. The passage into the instability and incompatibility sub-world has the objective of helping the economic system to return to the main road of a protected development. Well, experience shows that the cure doesn't work always, in the sense that the potential loss due to the fall into the sub-world is not enough to restore the *momentum* of a weakened economy. In other words, the promise that contemplates a pause in the tired economic system to give a new *impetus* to growth may fail in its task not only to give wings to recovery but above all to put the economy back on the path of a constant and lasting growth.

Well, this positive option doesn't occur always, although at a first glance there is the basic condition, that is, the typical decline due to the fall into the incompatibility sub-world. To better understand, let's try to compare the different successes of the fight against inflation during the 1980s in some Western countries.

In the late seventies, the most industrialized countries are suffering from endemic inflation that reaches 15% in the United States but is even higher in Europe, in countries such as Italy where it reaches and exceeds 20%. Now, apart from the meaning taken by the monetary policy decision of the Fed chairman about the fight against inflation at a global level, that difficult and controversial choice was nevertheless a great success, not only in the fight against inflation. In fact, it was a battle that essentially removed also the specter of the economic cycle, a sign that the abrupt recession had been successful in putting the development of the US economy back on the right track. Even in the following decade, during the presidency of Bill Clinton, the overseas economy grew with a firmer and faster pace than in the previous period.

2.1.1 The Right Path of Linear Growth and the Decision to Take Away Inflation Strength

In short, the Fed's president Volker (Note 9), with the consent of former US President (and former actor) Donald Reagan, essentially decides to take away the inflation strength by increasing the interest rates which reached the 20% threshold in June 1981. A risky action, because obviously the direct consequence was a sharp downturn of the economic conjuncture. With the consent of President Reagan then, Volker maintained the strong anti-inflation action despite criticism and adverse positions for the sudden increase in debt cost. It must be added that President Reagan has tried to balance as much as possible the imposed tightening in monetary policy, with a supportive economic policy. Therefore, with an operation that could sound somewhat in contrast and even in opposition to the success of the anti-inflation battle. It goes without saying that the expected result was achieved, with inflation in the United States which in a short time went down to 5% and then dropped and remained at around 2% for a long time. It is also singular that the inflation collapse was accompanied by a rebound in the economic cycle, unexpected and contradictory with respect to the line of a gradual but constant growth. Evidently it was a particular condition, which had been created by the unexpected and strong tightening of monetary policy that put a stop to the ongoing programs and lightened the economy from the burden of credit linked to the price rush. It was therefore an anomalous response that didn't repeat, then disillusioning those who had believed that the post-recession leap could be the norm of economic systems. On the contrary, once the cycle spiral has started, the true norm is that it continues its run, probably intensifying the strength of recessions in series.

But apart from the result, after the hard recession, of a rebound in the USA in early 1980s, it is important to emphasize that the Reagan-Volcker strategy made it possible to achieve the expected return of the economy across the Atlantic on the path of a constant and gradual growth. Therefore confirming that a guided recession, which captures the natural instances requesting to lighten the pollution created by us, can achieve the aim of really renewing the common humankind-nature goal of a linear and sufficiently long development. In addition, the fight against inflation carried out with determination by the rulers of the time has dried up the effect of a double-digit inflation on the wealth distribution; because that inflation starts a sort of automatic system that conveys wealth and incomes towards the fortunate classes. Therefore, in the USA, during the period under review, we can see instead a stop or at least a slight regression of the negative phenomenon of wealth accumulation at the top.

This remarkable result should be compared with the much less satisfactory one suffered by other countries though following, but with less determination and commitment, the model of fighting against inflation and at the same time against the parallel economic cycle. We can examine the case of Italy at this regard. The "Bel Paese" (Beautiful Country) emerged from the seventies with an inflation reaching and exceeding 23%, despite the growing tension of monetary policy in search of some relief from inflation. A price tension that was revived by the decision to lighten the economic system from the burden of a quick rising cost of oil, by transferring part of the greater burden to the public deficit. It

should be noted that in the period in question the public budget, which in the 1960s marked a deficit of 37% in relation to Gross Product which was anyway still lower than the European average, has undergone an acceleration that dragged the public debt up to 100% in terms of GDP over the 80s. Nevertheless, the current scenario was quite troubled by the decision on the divorce between the Treasury and the Bank of Italy. In the past, the Issuing Institution had provided the monetary coverage of the public deficit and had represented a decisive brake on the expansion of public management deficits. That kind of decision -on the ideal rational level- leaves therefore the sub-government free to resort to deficit coverage, without there being an autonomous institution with the necessary powers to put a stop to the use of deficit, by the way mostly to finance pure patronage measures.

Therefore, essentially the monetary policy -albeit restrictive- was balanced by the economic policy, which was practically giving back through the increase in current public spending just what was taken through the monetary brake, anyway moderate. The results in Italy were therefore disappointing with the inflation slowly declining and still exceeding 5% in the 1990s. Having been neutralized in that way, in fact, the monetary policy has essentially played a role mainly subject to the precise directive not to affect the growth trend of the Italian economy. After the tumultuous growth of the years after the Second World War, in fact, the Italian economy was badly affected by the oil crises, and in the 1980s its performance halved compared to the average of previous period.

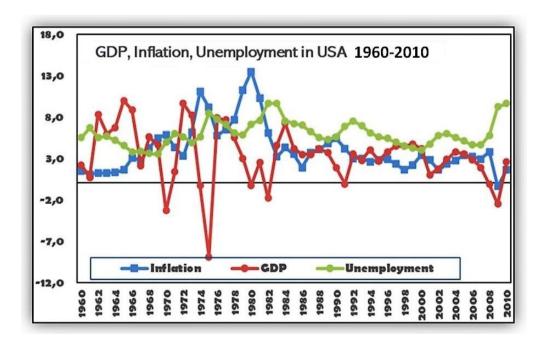


Figure 3. GDP, Inflation and Unemployment in USA 1960-2010

Source: Elaborations on OECD data

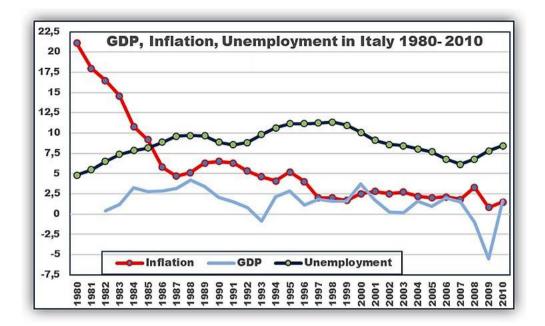


Figure 4. GDP, Inflation and Unemployment in Italy 1980-2010

Source: Elaborations on OECD data

The Italian experience of the eighties shows that any attempt to balance the restrictive monetary policy with a supportive economic policy, based on deficit, doesn't achieve the goal of giving a boost to the economic recovery. On the contrary, the overall result is a slowdown in the development tone which will have repercussions during the following years with poor performances.

All this is all the more true if we observe that the main objective of that time -to control and mitigate the inflation strength- is not achieved, because only after many years also Italy will see a change from inflation to deflation; deflation that since 2000 has become a global problem. Therefore, poor results in terms of inflation control; moreover, slowdown in a growth that previously was fast and effective. And it is not enough. Because the continuous struggle against inflation still lasted for over a decade and this essentially means that the invisible force that always tends to draw incomes and wealth towards the more favored and richer classes, didn't cease to operate in those years. In fact, as we mentioned, inflation can be compared to a sort of aspirator who directs incomes towards the upper levels of the community, while at the same time are reduced the incomes available for the rest of the country. An improper, unfair and unequal distribution that always occurs because of the country's permanence in the instability sub-world and which is a sign to be carefully observed, because it is symptomatic that the economy's path moves outside the space of a linear and constant growth.

On the other hand, there has been another such signal also present into the distorted economy of the sub-world, and that acted during those years performing the improper function of further impoverishing the incomes of the most for the benefit of the lucky few already rich. That is, to help the country's

export through the gradual and recurring devaluation of the lira (still in force at the time), and also taking advantage of the higher relative inflation of Italy compared to France and especially to Germany. But these were and are wrong mechanisms because they provided a monetary dumping to an industry that was selling low-tech products at low prices: a kind of industry that in those and following years has met a formidable competitor for all the low-tech goods at bargain prices, the great Chinese Dragon.

This brief description offers us an opportunity to indicate what and how many signals may come to the economy when this is traveling inside the instability and incompatibility sub-world. At the same time let's note instead the greater visibility and also the better social harmony deriving from a more equitable growth in the resource distribution among the different levels of the community. Because the permanence in the sub-world area brings with it a series of troubling changes in social and economic relations, even somewhat unexpected, which make it more difficult to keep a firm control in view of the gradual return to the correct path, and not without penalties anyway.

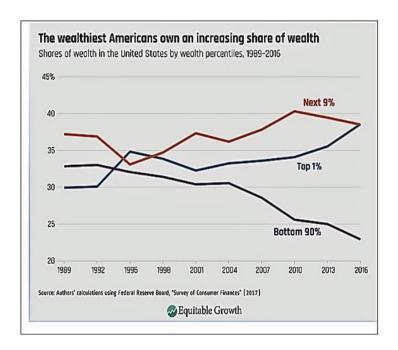


Figure 5. Wealthiest Americans Increasing Share of Wealth 1989-2016

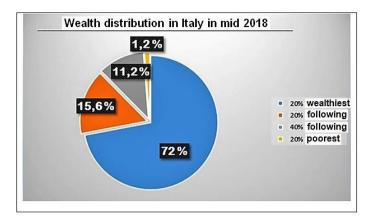


Figure 6. Wealth Distribution in Italy in Mid 2018

The experience described so far and other similar ones confirm that the choice of trying to fight the natural trends of the economy with operations to support the cycle, are substantially wrong. Not only because they do not reach the desired goal, which instead moves further away. But above all because these supportive choices are essentially indicating the inaccurate, incorrect and unrealistic presumptions pervading the economic governance. In fact, the goal to be pursued when managing the economy is not to 'ride the tiger' of the economic conjuncture but rather to control it in order to return to the normality that can only be found in the development according to the natural world.

It should also be recalled that not accepting and then contrasting the natural request for an economic pause, in some way also means remaining in the instability sub-world and therefore means suffering the negative alterations that will affect the social relations, due to the widening gap between rich and poor people. These alterations will essentially end up reducing the spaces of democracy, increasing the exasperated political antagonisms due to the divergent demands coming from the community, because depending on whether they are poor or rich people, or rather poorest or richest. Moreover, this social dissymmetry further increases the distance between the development natural path and the way forcibly imposed by governments with the presumptuous certainty of being able to control, against the nature, the bad waves of economy.

The idea to be promoted is certainly not that of a government lost between inertia and passivity. On the contrary, it would be desirable to have a government ready to take initiatives and therefore capable of capturing among citizens or rather in the community majority, those guiding ideas suitable for a natural management of development which, as we have seen, requires the purpose firmness and the reasoned optimism of rationality. The basic idea is that even in the most complex situations, following the economic natural impulses, that is, the average orientations of the community majority, simply means that government is working with the widest support. As saying that it should be firmly rejected the criticisms of those who, under the pretext of helping the troubled economic vessel through public support, are serving instead their minority interests by defending 'tooth and nail' their improper and unequal privileges and wealth.

2.2 Deflation and Inflation: Natural Tools to Guide Us in Our Fight against the Instability Sub-world In the sub-world scenario, the exception to the linear development is marked by the direction change imposed by the economic conjuncture: a variable alternation of ups and downs depending on the unstable condition of the economic system. The mechanism for correcting the drift of the economy from the natural path is the conjuncture, that is, essentially the recession that requires a pause to calm the development. So we have these two phenomena that appear like a couple of bodyguards, who are just spectators and not active part of the economic life, in the sense that they do not participate in the fate of economic activity. Nevertheless, they are attentive reflectors of the instability state; they are like mirrors on which reality -thus become incompatible with nature— is reproduced by using the price system as a yardstick. A mechanism that all the community members are able to understand, and which is renewed every day with the economic life development, so giving us the right level of current condition and future prospects.

In short, they do not participate in the hectic economic activity: deflation (now globally prevalent) and inflation (worldwide widespread for twenty years) are both messages, communications to the community that the economy is traveling inside the instability world. It isn't by sure simply the notice of their imminent return on the economic scenario, but just an incontrovertible message to the community and to each one of us in our territory that things in the economy are not going well and the prospects for tomorrow are changing for the worse.

Both the monetary manifestations, inflation and deflation, are however capable of providing a concise but precise information. However, they do not participate in the economic process of which they are nonetheless an extreme synthesis. As saying that when inflation accelerates and prices rise, our interpretation is quite clear. It means that the economic prospects tend to get worse, and something must be done to control this negative phenomenon. On the contrary, if inflation decelerates becoming flat, it means that we are emerging from the phase of greater instability and that we need to insist on the right direction taken.

We can make the same considerations for deflation, which always acts on the price system but in the sense of contracting prices up to negative rates, because we have to keep in mind that anyway deflation doesn't just mean the opposite of inflation. These two 'servants' of the economy, as already mentioned, do not participate in any way in the fate of economy. The consequences, often harmful when they appear on the economic scenario, depend on the effects of a changing purchasing power, especially for the poorest, and particularly in the case of inflation. This effect is only partially mitigated by the wage indexation systems. On the other hand inflation, and also deflation, are acting on the debts of companies and households in the sense of lightening them (or instead weighing them down), causing therefore serious damage to savings.

They are like mirrors on which the trend of economic activities is briefly reflected with the aim of informing the community and each one of us that we need to step down and begin to consider a pause in the economic system and a probable damage to our resources. As already mentioned, inflation acts

with a sort of "variable intensity diapason" that begins with a slight acceleration of prices up to the extraordinary cases of hyperinflation, experienced by Germany in the first post-War World.

In analogy to the very variable frequency of the economic conjuncture that moves from the long waves of recovery to its almost disappearance while is extended the recession time, also inflation is therefore varying. From the weak price movement that slightly exceeds the basic 2% of economic stability, to an acceleration that doubles the price run in a short time. Even a minimal inflation is always accompanied by an accelerated motion, to remind us that time is playing against us if we do not take the appropriate measures in order to mitigate the worsening scenario. Basically, the method to give new impetus to the economy in trouble is always the same: allowing a pause to establish a balance between the times of economy and the longer times of environment, but even more the times of our welcoming planet.

How to explain as far as possible the relationship between the planet and the humankind that starts the two phenomena of inflation or deflation, and therefore the different intensity degrees and their acceleration? Well, the recipient of these signals is the community, who is tuned on the wave of linear growth and stable prices. Tuned in the sense that the community has the linear perspective and stability deeply engraved in its subconscious. The acceleration should therefore mean that the variable rush of prices is the right tool to shake our inertia and therefore to start a reaction, that is, a strong dissent against the economic management which is responsible for the regression, out of the expected scenario. At this point we can admit that the price system, in addition to performing the function of measuring values and exchanges, has also the function of checking the balance between the economic development and the state of environment around us. Admitting this hypothesis, we can accept the parameter of the balance between economic growth and environment state. This parameter, which is not calculated but just drawn from experience, is set by the Central Banks at a rate close to 2%. When the price system is within a range of values close to 2%, it is reasonably believed that the economy has found or rather found again the compatibility threshold and is therefore back on a development linear path (Note 10).

It must also be admitted that, from the point of view of relationship with the environment, the parameter close to 2% is not a symptom of compatibility (difficult to reach at this stage of affairs), but it is rather a statistical episode, which indicates that the system is still struggling with deflation. Better to say, the parameter close to 2% is (at least for now) an ideal value, unreachable due to the distance that still separates our waste production and the disposal capacity of the natural system. This must mean that the development profile of human beings is progressing together with the research and evolution of science according to a line that we can call "relative compatibility"; that is, the least possible damage to natural system that human beings can do. Following this line of relative compatibility, the development of human beings can follow the linearity of an almost constant economic growth; this development linearity is then part of our DNA and is helping us to judge if the governance were good or not.

Well, if we admit that this ideal parameter is a universal constant, like the great constants of physics, with the task of protecting life on the planet, then we can try to clarify the mechanisms of economic cycles and the messages offered by inflation and deflation.

As we have seen, during inflation the price mechanism undergoes an expansion, due to the state of the system's instability, which is perceived directly and immediately by the community that fears the nominal acceleration of prices because the income value would be reduced. This mechanism essentially means that the constant parameter near 2% of the theoretical balance is expanded and follows an acceleration that we can imagine proportional to the degree of economic instability. It would therefore be somewhat hidden inside the procession of decimal digits forming the parameter close to 2%, that is, the sequence that guides the start and evolution of the inflationary process as well as its gradual exhaustion.

In other words, the inflationary process at its birth has already an acceleration that from the very beginning is running according to the instability state. The phenomenon, however, can be subject to further acceleration or reduction thrusts that can find a suitable explanation with reference to the community's behavior. In fact, monetary policy, companies and households, who are suffering the tensions imposed by the phenomenon, can provide a good amount of monetary means to allow the development and acceleration of the phenomenon, if adequate measures are not taken over time to curb this excessive economic excitement.

In this regard, it should be remembered that in inflation times the natural corrective method requires a pause in development to allow a slowdown in the pace of prices. For this reason, it might be wrong to take measures aimed directly or indirectly at supporting the weak cycle, thus giving further reason to the pressure of nominal prices. The phenomenon occurred in Italy at the time of the first and second oil crises. Guido Carli, then Treasury Minister, worried about the negative effects of the unexpected increase in oil prices, proposed to help companies and households by reducing the growing energy burden through the public deficit spending (Note 11). It was a measure in support of the economy which therefore had as a side effect the sharp acceleration of inflation, which in the late seventies was over 23%. Unfortunately, the results coming from advantages (lower cost of energy) and disadvantages (sharp increase of inflation) were equivalent, and therefore at the time the problems for the less fortunate categories increased, with the additional trouble of a double-digit inflation.

Without a public support to families and businesses, the sudden strong increase of oil price would have led to widespread price increases to cover the higher costs. However, the wave of increases after some time would stabilize without or with less interference on the inflation acceleration.

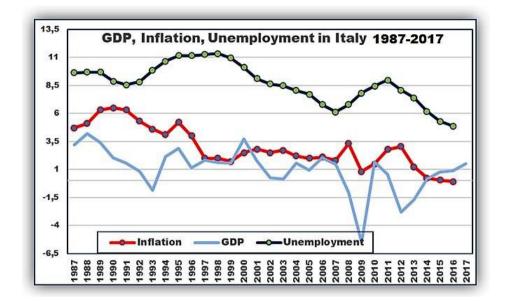


Figure 6. GDP, Inflation and Unemployment in Italy 1987-2017 (in percentage)

Source: Elaborations on OECD data

It seems essentially confirmed that the attempts to block inflation with concerted action by the monetary policy and a supportive economic policy, do not achieve the goal of containing the phenomenon but rather can even intensify it. As saying that we cannot play against the natural trend towards the pause but we must instead favor the natural manifestation of this trend as much as possible. In other words, the economic government in case of inflation must accept the inspiration coming from nature that is just asking for a pause to restore the *momentum*, after a period of restriction, in favor of the weakened economy and at the same time to reduce the pressure on prices. The power to promote or extinguish the inflation fire doesn't fall within the competence of economic governments, because that power remains a prerogative firmly under the universal law. While the management of the economy during inflation remains conditioned by the implicit "suggestions" of the natural system, which requires nothing more and nothing less than the choice of a long and deep pause to control and mitigate the nominal prices until the inflation motion is extinguished.

The long season of worldwide inflation during the 1970s and 1980s was finally bypassed by the courage shown by the Fed chairman of the time, with the support of US President Donald Reagan. An experience which was then adopted, but of course with different timing, by most of the countries affected by monetary alterations.

It is quite strange that after another decade of global relative monetary peace, the economic trends generally turned towards deflation. Nominal prices, although under the impulse of changing international prices, do not react but rather tend to slowly decline. Inflation and deflation are phenomena that have the same natural origin and are messages to the community, warning that things in the economy are not going along the path of a relatively compatible linear development. It might be

thought, maybe too easily, that it was the decision to raise promptly and proportionally the interest rates what caused the nature's pendulum to shift from inflation to deflation, in the sense that experience had shown that it was possible to tame the price rush.

Apart from the natural reasons for the deflation emergence at a global level, it must be said that both inflation and deflation are messages to the community and their purpose is therefore above all just informative and it is meant to activate the due defenses. Furthermore, the economic and social consequences of an increase or decrease in prices can in the end basically coincide. Because both can activate an unequal distribution of the available resources to the detriment of the poorest categories. We have already said that inflation, especially when it is high, is acting like an aspirator that draws income and resources for the advantage of the richest categories. Also the attempts to live with inflation, by using tools to update and improve the value of wages and fixed income, are not a *panacea* but another potential mistake because we are simply failing 'to grasp the nettle'.

Well, in the case of deflation, the mechanism that drags up income and wealth is different but no less effective. Indeed, the fight against deflation is conducted with blunt weapons! In fact, it is a common belief that by giving some emphasis through the reduction of interest rate parallel to the decline of deflated prices, it would be possible to bring the weak rate of nominal prices to be almost normal. Therefore, in this way we go against the natural trend that requires instead a pause in development for the recovery of price stability. For this reason, the fight against deflation isn't fair and doesn't give the desired and expected results.

But the lack of results in the fight against deflation is not yet everything, unfortunately. Because the decision to contain interest rates according to the fall of prices, carries also the danger that the abundance of low-cost credit, or even almost zero-cost, activates the interest and greed of speculators. It is evident that diverting savings and credit to satisfy essentially the interests of speculation, takes away money from the productive investments. A strong financial market is then created, that is pushing up the value of goods and stock exchanges to the detriment of the real economy, which remains weak—as in fact actually happens...

Not only is the expected result of an economic recovery not achieved, but in addition a speculative cycle is alternatively started which sooner or later will have to be closed in order to bring values back to the correct market prices. As I said, even in this case the speculative action starts a sort of aspirator of income and resources in favor of privileged categories and against the majority of the community. To really understand the distortions produced on the fate of economy and social relations by the low or zero cost of credit, just look at the stock market curve, and precisely at the New York Stock Exchange. We can realize that in such times the main stock markets suffer startling excitements, since they are shaken by the deflation effects. These jolts move from peak to peak, interspersed with falls due to unexpected news coming to speculators. So that periodically, whether it is right or not, the values are ready after just a while to resume their run. This stop and go of the Stock Exchanges, in other words,

means that, with the same timing, the damage related to unpaid credits due to the sudden temporary decline of values, are discharged on the real economy.

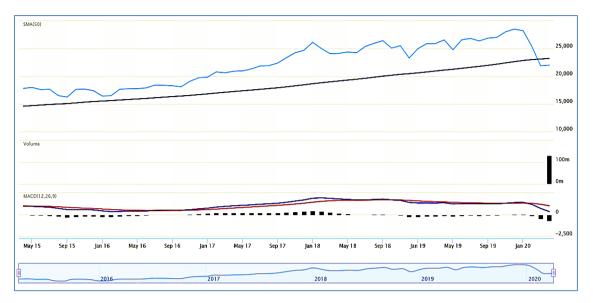


Figure 7. Trend of Dow Jones Industrial Average from May 2015 to June 2020

Source: Financial information on MarketWatch website

Therefore, there would be no need for the periodic rupture of the speculative bubble to have the real economy finally hit hard by the falling values, after having already endured the sudden and negative deviation of credit towards speculation, so neglecting investments and research opportunities.

2.2.1 The Theme of the Alternation between Inflation in the Seventies and Eighties, and Deflation since 2000

There are therefore similarities between inflation and deflation regarding the results they produce and that impact on the community. Especially since the objective of these nominal price alterations is precisely to raise the awareness among most of the people, about the need to change the direction of economic government, also because of social discontent. And this social tension should tend over time to become the majority, in favor of a new economic management program in order to return to the linear development, which should also be compatible as far as possible. And thus, the world of work would be favored and also the equitable distribution of resources in the community, because these are the distinctive and essential characteristics of an almost compatible development.

Ergo, any attempt to bypass the natural direction requiring a stop before resuming the development march, is doomed to fail. Yet it is still not enough. Because the anomalies in the income distribution that worsen over time and the repetition of the new relative highs in the stock market, accentuate the social tension due to the awareness of unequal differences in the living conditions. Tensions that have an undoubted impact on the political level, in the sense that they obscure the intrinsic ability of the majority in the community to select the leadership and a government program that should be closer to

the natural direction, to allow therefore the restoration of a correct relationship between wages and other incomes.

Returning to the theme of the alternation between inflation in the seventies and eighties, and deflation since 2000, one thing appears certain. It is obvious, in fact, that the transition from one to the other with the consequent monetary alterations that are changing sign, didn't happen surely overnight but took almost twenty years. In fact, the fight against inflation was successful only when the stubborn will of the Fed's president in the late 1970s was able to apply a very strong treatment (i.e., interest rates increased over 20%) that mitigated US inflation with a cure (i.e. recession) which lasted over two years.

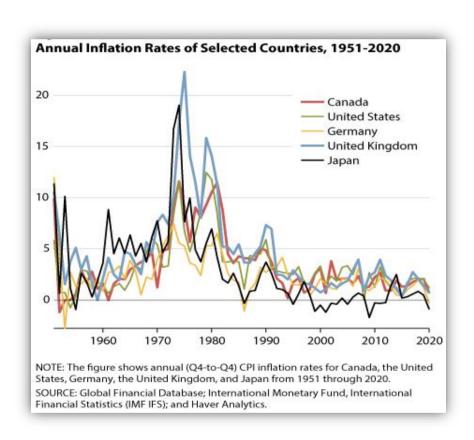


Figure 8. Annual Inflation Rates in Selected Countries 1951-2020

This is to say that the expectations of many observers who predict an inflation resumption in the USA and in the Western area, almost to compensate for the long period of deflation, do not seem to consider that the two phenomena are not interchangeable and that they are both aspects of the sub-world. And finally that both, inflation and deflation, are always creating tensions whose purpose is to push communities to take initiatives in order to improve the whole scenario of economic situation and the relations with natural world.

Speaking about the recent rise of prices in industrialized countries, due to the tension fall of deflation—which gave birth to the idea of a largely recovering inflation—it should be specified that the rising prices have a character mainly speculative. Only in part this can be justified by the pressure of an accelerating and partially unexpected demand that didn't anyway find a match in the offer. Therefore, we are not facing in this case the inflationary phenomenon, which is forcibly accelerated regardless the state of the markets, but we are instead facing an increase in international prices which was obviously generated under the pressure of changes troubling the market. This would suggest a transitory phenomenon that should be reduced in the coming months.

In any case, the idea is quite obvious that the sub-world and its 'handmaidens', inflation and deflation, are not created by a fantasy government or by an indefinite potentate but are the intrinsic fruit of the relationships between nature and living beings. In the sense that both humankind and nature agree to move in the common will to allow the life continuation and to fight any threat deriving from abuses in the relationship with our environment. From this harmony of relationships between living beings that are born of dust and the dust itself (i.e. the Earth), we must believe that the safeguard mechanism, which we have called sub-world, is born and operates in its effort to indicate those natural forces that act to contain all the damage, and thus to give life the possibility to continue in the next future generations.

On the other hand, the push of international prices seems to be combined with a lower tension of deflation, which is the result of a clear improvement marked by the economic activities in action from the second half of 2021. In fact, as a worsening economic situation is accompanied by the negative sign of deflation, in the same way we should note that an improvement in the economic situation, due in this pandemic context to the action of vaccines and the treatments against virus, is able to relieve the economy from the degradation of deflation. Nevertheless, we must add that the improvement in the economic situation on this occasion was preceded by the lockdown that blocked any economic activity for a long time.

The natural logic is therefore respected, according to which the position in agreement with the pause required by the natural system, usually offers the opportunity for an improvement in the economic situation that can last even for a long time. In fact, the lockdown that for months and months, unexpected and unforeseen, limited the economic activity, it is true that acted in contrast with the common sentiment but in any case corresponded to the natural direction requiring a reflection pause.

According to this action line, the current improvement in the economic conjuncture shouldn't be surprising, since it could also last some seasons and then may not run out immediately. Not even the so-called inflation revival should cause any concern. The appreciable rise in prices should rather be classified as a result of the deflation easing, in a context of rising international prices.

This experience seems to confirm that the development line of a territory seems to have already been traced and that all deviations from this ideal line are marked by warning signals and messages that, far from being neglected, should be followed to achieve the best results. Therefore, the various more or

less long vicissitudes characterizing the development path shouldn't be considered enemies to fight because they can often be quite timely warnings, to be therefore caught and evaluated. Obviously keeping in mind that: 1) inflation and deflation are messages to the community and therefore cannot be contrasted precisely because they are just images, not connected to the real economic evolution, but they measure the instability degree; 2) the economic cycle is full of penalties that its basic mechanism, the recession, brings with it to move the economic system gradually back to the ideal stage of a linear and almost compatible growth.

In any case, it must be firmly reiterated that an improvement in the economic conjuncture is able to reduce the deflation strength, so putting the economic system back on the recovery path, even extended with the characteristics of linearity and relative compatibility. All this, however, only in the hypothesis that the economic management is following the natural guidelines. In other words, that the government of the economy accepted to follow the natural prescriptions that require a pause, even somewhat extended, or alternatively in the case that for other kinds of reasons all the activities were blocked, such as the pandemic affecting now the whole world. On the other hand, if we try to force the imposed limits by resorting to the improper support of the cycle, the results can be very different from those expected, with a potential worsening of the instability state.

We can imagine inflation as the wave created in a pond when a stone is launched into the water. The wave accelerates according to the initial speed provided by the stone. Similarly, inflation expands like a wave and accelerates in relation to the unstable state of the economy but doesn't disappear gradually, unlike the waves in the pond. In fact, the expansion process continues without end, at least until there are changes in the economic context. In its accelerated motion, inflation is not involved in the economic process but continues, as mentioned, according to its own acceleration which instead was decided by the initial economic conjuncture. It could be imagined that the constant number close to 2%, which indicates the ideal context of total compatibility with nature, also has a sequence that at the start of the run in nominal prices also gives the acceleration ratio accordingly. A basic addendum that doesn't change during the development process of the monetary phenomenon but is obviously affected by the changes induced for worse or better by the economic process.

These last considerations can help us in trying to outline the steps taken during the transition from the state of inflation to that of deflation. We shouldn't forget that they are both messages, a sort of communication to the community and both try to stimulate the reaction of the community who, as mentioned, compares the *status quo* with the ideal linear and compatible development. The world today is witnessing a change in the message: in fact, while in the previous century the inflation prevailed, since 2000 the preference seems to lean towards deflation, always at a global level. It is unclear whether the move to deflation is due to specific economic factors that recommend this choice in the current situation. However, the fact remains that both messages are carriers of a single natural requirement: the pause of economic systems, in order to contain and control the pollution on this planet,

the planet that as far as we know is the only one we have, the planet that we must hand over to future generations.

It is certainly quite singular that the long inflationary season that lasted over twenty years, was followed by a period of relative tranquility in terms of global development, which ended with the 2000 financial crises. These crises marked the start of a period of deflation also long. One might believe that the long battle against inflation may have reduced its effectiveness as a message, because now we finally have the keys to solve it (e.g. the actions made by Volcker's Fed). Or maybe is changed the economic context, that now considers the deflation preferable as an effective and long-lasting message. Apart from the nature of the message which, as we have already mentioned, points to the same result (i.e. the economic pause), it must be said that deflation appears more difficult to be removed with the usual actions of monetary policy. The monetary policy also in this case followed the rule of making a gradual reduction of the money cost, according to the fall of nominal prices. An attempt was also made to accentuate the drop of interest rate which then passed to zero or even negative. Thus, moving in a similar way but in opposition to what was experienced with inflation, of which we finally had the key to taking the economic system out of the long wave of inflation.

Without appreciable results, anyway, in terms of prices and with the dangerous legacy of a low or even zero cost of money that above all stimulates speculative actions to obtain credit to push up the values of stock exchanges and assets, of course not corresponding to the real market values. As already mentioned, in fact, low or very low interest rates do not excite the real economy, which is suffering from the slowdown effect induced by deflation. On the contrary, it stimulates the speculation for the easy profits obtainable by purchasing goods, which will then be resold at unreasonably higher prices. As the economy remains cold, the share of resources destined for wages is narrowed; the share of resources that are profited by speculators is increased, instead. A perverse mechanism therefore, that modifies the social distribution of incomes and wealth that is increased as usual only within the most privileged categories.

With these notes, we would like to question the practicability of a monetary policy which is excessively permissive. The problem therefore arises of finding a mediation point that could allow, within certain limits. a decrease in interest rates though not strictly correlated with the falling prices. And at the same time, it should be put a stop to the speculative rush that alters the resource distribution, and essentially impoverishes most of the community. This is unfortunately a common condition in the current periods we are living in the deflationary scenario, which exacerbates social tensions, alters relations between the different social classes and in the end puts the democratic order in deep crisis, because it doesn't seem able to mitigate these anomalies affecting the income distribution.

Therefore, we need to find a mediation that aims to finally curb speculation, thus being able to eliminate the negativities accompanying this practice, reserved for the few and above all to the detriment of the majority. To this end, it should be remembered that the universal constant number close to 2% is an ideal index of stability and full compatibility, with prices stable in the long run. This

constant is not zero but signals anyway a background noise, that is, the noise of economic activity. As saying that in the range between 0 and the number close to 2%, in the ideal case of a complete compatibility with the environment, the prices are firm and stable. It would therefore *make no sense* that in this interval without a precise entity but fully comparable to a zero level, is established a precise value valid for interest rates. As saying that if we decide instead that a value included in that strict range will be indicated as the valid interest rate, it will essentially mean that interest rates are equivalent to zero. The elimination of the credit cost is the condition that, as we have indicated, will result in giving space to easy income and speculative rush. Thus the right credit activity that should be directed to the real economy, is replaced by the 'ghost' of a development that sooner or later will be demolished in order to return to the correct market values.

From these considerations we can draw the conclusion that is possible to avoid the danger of speculative excesses and related evils, by establishing that monetary policy should not, in the deflationary scenario, allow the fall of interest rates below the base value close to 2 %. Obviously, the ideal and universal value of linear growth compatible with our environment is called into question, and this time to impose a limit on the declining rates. No surprise that another kind of yardstick with different meaning can also be used to set a lower limit. After all, nature never seems to use superfluous tools to achieve its objectives of a joint management nature-humankind in the struggle for the survival of future generations.

This necessarily means that if we accept the predicted lower limit on the falling interest rates during the deflation phase, we should see a significant reduction of speculation. It is true that with the money cost at the predicted minimum level we could have an extended pause in development; but, as already mentioned, the way out of instability and incompatibility also requires a pause or recession as a basic tool for the return of the economic system to the path of linear growth and relative compatibility.

In other words, also in the deflationary scenario the proposal is to follow the scheme indicated for the fight against inflation, always based on the possibility to put in pause the economic system while waiting for the instability reduction. Thus, in the case of inflation, the fight is effective only if rates are increased beyond the increase of nominal prices. Likewise, in the case of deflation, the possibility of a real corrective action would be recommended and achievable only in the event that interest rates never fall below the minimum indicated by the number close to 2%. Also in this hypothesis, it should be admitted that such a strategy should give a very good result, the same obtained globally by the economic systems that have widely adopted it to get out of the inflation domain.

It should be noted that any delay on the abnormal ground of deflation brings with it the unknown factor of a downward price trend, with the bad effects we have mentioned regarding the development, which remains weak, and above all regarding the massive transfer of incomes and wealth towards the highest sectors of society. Any hesitation or recourse to the unlimited fall in interest rates means to stay for an indefinite time inside the sub-world. Now, if we are basically waiting once again for the recurring appearance of financial crisis that will take care of demolishing the stock market values and assets,

therefore the real risk we can expect could be just the classic poisoned apple, exactly like that of Snow White.

As things stand at present, in January 2022 the long struggle with vaccines against the epidemic has finally made it possible the recovery of the global economy. And this time not because of an effective control strategy of deflation, but just profiting of the lockdown imposed on the global economic system in 2020 for various months by the unexpected and widespread outbreak of the virus. Basically, we can say that the lockdown has replaced, with similar positive effects, the pause required to rebalance the global development according to the disposal possibilities available to the natural system. With the main result of attenuating the downward pressure of deflation on prices, thus leaving space for the global economic system to resume its normal pace, albeit with some potential variability also due to the winter resumption of infections.

What can we expect at this point? Well, we must distinguish between different hypotheses: whether it is possible to control the further escalation of the epidemic or it is rising a new phase of total or partial lockdown. In the case of a new lockdown, everything would be postponed to a new date when the current good conditions will be restored, thanks to the diffusion of vaccines and to the mild climate.

If the winter break fails to burn all the recovery chances, then we can believe that the pressure on prices due to the unexpected increased demand for raw materials and semi-finished products in the industry should be eased by the increasing supply and the speculation control. Once again it will be the price index to tell us whether the recovery will be relatively extended, or it will soon be stopped by the reappearance of deflation.

Now, apart from the forecasts which are always quite difficult in a period of great variability like today, the fact remains that the long slowdown in the world economy should overcome the past uncertainties and give breath to the much-desired economic recovery that brings back to the pre-COVID levels. In any case, at the springtime turn we can hope that the fall of infection level and the speed of vaccination campaign will give a new impetus to the global recovery and that at the same time the inflationary and deflationary pressures will be attenuated or extinguished. In this optimistic hypothesis we could also hope for a period of prolonged economic recovery after the hardships we suffered during the two-year period 2020-2021.

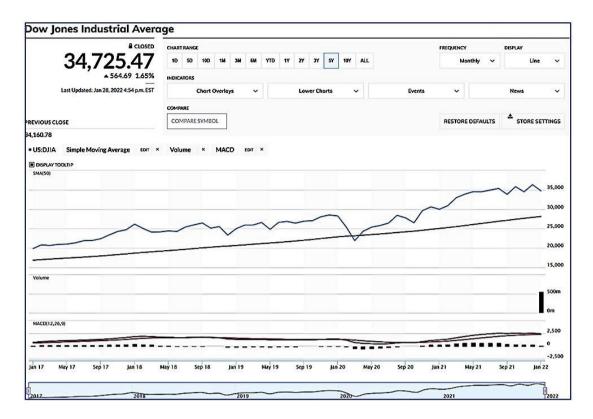


Figure 9. New York Stock Exchange Trend in the Period Jan. 2017-Jan. 2022 and Price Trend for the Same Period in the US Market

Source: Financial information on MarketWatch website

Now, after leading the same hypothesis to become ultra-optimistic by imagining to recompose the Ukrainian terrible troubles, we can essentially go so far as to hypothesize that after the defeat of inflation in the Eighties, it is now the turn of deflation! In this hypothesis, in fact, with the acceptance of limited descent of interest rates near 2%, the deflation could also lose its strength and release prices free to follow the market sentiment. In this hypothesis, quite theoretical indeed, we should note that both the natural 'messenger angels' have been silenced and therefore there wouldn't be any connection message to the community. An unlikely hypothesis that would be acceptable only in the remote case that research and science, with an unexpected leap forward, have found a new unknown tool to obtain locally the hydrogen at a very small price. At that point we could really replace immediately all mineral fuels (coal, oil and gas) with the new non-polluting 'super fuel' that would take us directly into the future age of hydrogen!

Obviously, this potential tool really exists but obviously it is still unavailable because not yet feasible and we still cannot imagine the times needed for the transformation of our civilization based on thermal engines. Therefore, if we discard (for now) this possibility, in the case of deflation set aside maybe forever like inflation, it is unimaginable that the dialogue between nature and the human community can be overcome without anything else acting as an intermediary. On the contrary, we must believe that

in view of the new times, though still remote, an instrument suitable for the dialogue between human community and nature cannot be missing. And in fact, the present times are pervaded by the messages of science conveying the fear of serious natural damage coming from the increased temperature of the globe, due to the atmospheric pollution caused by greenhouse gases.

In the complex situation that we are currently experiencing, it doesn't seem possible that the strong link we have with the nature around us can be interrupted, therefore no longer providing the useful advice offered by the natural indications to get out of instability and incompatibility. Obviously, we are unable to indicate who or what the new messenger of nature could be. But there is no doubt that even in this improbable hypothesis (i.e. inflation and deflation finally defeated) we will certainly find the new link, suitable to light the way to return to a linear and relatively compatible growth.

2.3 The Community Is the Terminal of the Relationship between Humankind and Nature

The community, or rather its majority, is entrusted with delicate and important tasks in the field of social and economic management. The majority of the community can also be consulted to know the orientations regarding consumption and savings, the positive or negative appreciation of goods and values, etc. Well, with regard to goods and values it is possible to turn to the individual experience and to the exchange of information and sensations in the social *milieu*. The majority in the community is also entrusted with the delicate and important task of selecting the leaderships to whom to assign, in a democratic context, the task of managing the economy and the territorial government. On what general criteria does the majority of the community rely to decide?

Let's be clear on this point: we are not saying that what emerges from the will of the majority is always the only possible choice. We are just trying to understand how and on what assumptions the majority of the community relies for its decisions. Now it is evident that the task we are talking about doesn't exist only in the democratic societies. Because even in autocratic and less advanced societies on the road to democracy, the problem of selecting and accepting the management leadership is anyway somehow in the hands of the community. In the sense that no authoritarian and autocratic regime can govern the fate of a territory for a long time without at least the general consent of the community.

Well, what criteria does the community follow to form and establish a majority who will then select the leadership? To define the problem, we should admit that there is a connection between the nature and the majority of the community, and this majority is the living terminal of that connection. Furthermore, based on this uninterrupted connection with nature, we can believe that the community instinctively feels deeply in its DNA the certainty that the economic development proceeds according to a linear and extended direction of gradual growth. In other words, there must be a development line for humankind that allows to follow a path of virtuous growth without troubles and above all without the traumatic economic conjuncture. A path that has a double advantage. First, this is the right way to minimize the pollution of the natural system and therefore corrective actions are not required to restore the living conditions valid for the survival of future generations. Second, following this path means having the certainty for the community members that tomorrow will be just like the present and therefore no

changes in the *status quo* are expected. As saying that there is a line of balanced development based on the reasonable and correct income and wealth distribution among the members of the community.

In other words, the community refers to the idea imprinted in its DNA to select and choose the political leadership that will have the responsibility to guide the country's economy and to protect the social relations according to a system of equitable distribution of resources. And that's not enough, obviously. Because there must clearly be a natural message on the state of the economy that would allow us to compare the ideal model with the real current condition. As saying that the acceptance of the society model proposed by the economic government would be due to the comparison between the ideal model of a linear and gradual development and the current condition.

The messages sent by nature rely on an immediate reading directly provided by the price index, a simple value immediately perceptible by all the members of a community. Therefore, a quiet index approaching the universal value close to 2% is a 'state of grace' which may indicate that the development is following the natural order of linearity. Experience shows that this value is a difficult ideal to achieve, while often the price index can indicate monetary alterations, inflation or deflation, which therefore express the actual distance between the almost compatible path and the real *status quo*. Since the members of the community confidently await, as we have seen, that the development of economic system follows the straight line and therefore that tomorrow will be like today, the notification of inflation or deflation through the prices creates some apprehension in the majority. It is obviously feared that in the near future the resources at their disposal will be jeopardized and reduced. The resulting apprehension is proportionate to the *quantum* of inflation and to deflation extent, measured by the price index.

This is an instant index and every day we are updated on the development potential in our territory or on any possible obstacle. As already mentioned, the problem lies in the extent of monetary alteration and above all in the time we are forced to spend in the company of these innocent messengers (i.e. inflation or deflation) who are, let's not forget, mere mirrors in which the economic activity is reflected. The passing of time and the changes produced by monetary anomalies regarding the distribution of income and wealth, all this feeds a discontent climate. There will be therefore the attempt to aggregate a majority that would like to intervene in the economic management to change it and then to try to return to the general rule of linear development.

Everything we are discussing, starts from the basic consideration that nature as a whole and humankind both have, each for their own part, a common interest in safeguarding the life. And this safeguard must mean the stable and lasting maintenance of living conditions on the planet, the only one we have, and therefore from all this it follows that it is a common interest to take charge of the negative effects on the environment due to the presence of human beings and to the impact produced by their economic activities.

Together with the instant index, the communication coming from nature to the community includes the change on rules of development, which in the best hypothesis travels on a linear and relatively constant

motion. In the most usual case, unfortunately, the development line gets somewhat confused and follows a sinusoidal motion. In the best case we would have a long recovery of economic activity followed by a shorter period of recession or negative trend. However, as the economic scenario worsens, the economic pace also changes with the gradual reduction of recovery times until its disappearance and then the cycle is being extended, until the completion in a phase of economic recession or even depression.

With the intervention of the economic cycle on the scenario of economic activity, therefore, the recession takes the scene, because this is to be considered the only tool available to nature (and to community) in order to gradually resolve the accumulated faults. Mainly to offer therefore a break, useful to help the environment to dispose of pollution created by the human activities. Certainly, it isn't an instant tool, but being often accompanied by deflation and inflation, is therefore able to complete the information given to the community about the solution to be adopted to gradually resolve the economic problems.

It should always be emphasized that the basic guidelines to be adopted to resolve the irregularities of the economic system are *in pectore* those suggested by mother nature, and which are implicitly felt by the community members. In other words, it is about sensations inexplicable in the light of human rationality but that essentially advise the community members to let the control mechanism of the economy do its job. Or rather it is about a sort of *laissez-faire* granted to the natural economic evolution that will gradually lead the economic system back on the path of a purification pause, if and when needed.

In other words, our opinion as community members is a synthesis of the information mass on the weak state of the economy that is continuously reaching us through the altered trend of prices (i.e. through inflation and deflation) and obviously through the economic cycle. At the same time, we clearly perceive that there isn't a quick way out of the difficulties and that often there is a need to change the style of government which is damaging the country with deficiencies and irregularities that we can see and feel.

Obviously, it isn't a question of 'not doing' but, on the contrary, of making interventions according to the direction indicated by the natural system that recommends a break, needed for reforms. How else to explain the common feeling perceived by the community members, who, regardless of their social class or role, appear to be able to understand the current economic difficulties. And not only. Because we often see that even those who are not involved in the management of public affairs demonstrate to have a simple, schematic, I would say even elementary but nonetheless valid ideas to clean up the sick economic system. I'm not saying of course that they have the skills making them able to manage the complexity of the economy, but rather that they are surely able to adhere or not to ideas that circulate within the community on how to put the economic system back on the path of linear development.

In fact, the basic problem of the community seems to be the synthesis, with the convergent help of experts and scientists, of the various possibilities to finally make the right choice able to resolve over

time the economic malaise of a territory. In this way, as also through the following mediations, we can believe that a majority is finally formed within the social context not only in the case of economic dysfunctions but also when are generally needed an opinion, an evaluation or just a selection of the right point of view about a common problem.

We could therefore argue that when facing economic problems, the community or rather its majority will not exclude the hypothesis of taking a medicine quite bitter on a social level, such as the recessive pause. All the above happens by virtue of the common thought that is formed based on direct or implicit suggestions given by the natural system. In this sense we can believe that the good administrator of the government understands and knows how to appreciate the willingness of the majority to make some sacrifices for operations that can also turn to the detriment of the poorest part of the social group.

That is, a good governance wouldn't have the task of forcing the economic conjuncture nor of pushing up prices depressed by deflation but should rather favor through support measures even in deficit, that part of population affected by lack of work and low income. It isn't just a matter of carrying out a simple act of civilization that would mitigate the social tension by providing the weakest part of society with a survival income. But it is also about allowing, with the social consensus, the formation of a majority that agrees with the decision not to force the economic conjuncture and to accept the necessary economic slowdown for the time needed.

It shouldn't be surprising that in these conditions may be found a majority willing to wait for better times and therefore to accept the resulting sacrifices because on the one hand a survival income is guaranteed to the weakest part of society, which will mitigate its economic difficulties. Moreover, on the other hand, we can rely on the general feeling that is created in the community for the somewhat widespread awareness that the natural way is narrow and difficult, it is true, nonetheless it is necessary because the desire of most people to return to linear growth prevails.

It should be added that economic policy should collaborate with monetary policy in creating the right conditions for the recovery of the altered economic system. Since the problem is to let the natural system do its action in restoring the altered economy, the monetary policy must completely refrain from creating a rich amount of new money on the assumption that this would benefit the real economy. Actually, it is quite the contrary. Not only the new liquidity issues create an irresistible attraction for the new Ulysses-speculators bewitched by the song of the sirens of speculation. But in addition, the flood of new currency remains irrelevant to give additional *stimuli* to the real economy, which remains quite weak. It should be added that the undue boost given to prices driven by speculation, accumulates new highs of Stock Market values or real estate assets, while some negative information (e.g. a worsening of the epidemiological situation) is expected just to create the conditions suitable for a sudden drop in prices. And so on, but actually waiting for a new financial crisis that will establish a sharp recession in the real economy.

The collaboration between economic and monetary policies starts from the independence of the second one from the market mood and from the character of the policy for controlling the performance of the economy. It is therefore absolutely excluded that its action could ever be subordinate to government policy. This cannot obviously mean that in the event of a serious economic crisis, it doesn't have the power to approve the issuance of new liquidity to mitigate the impact of cash shortage on businesses. On the other hand, it should be added that the increased liquidity will certainly be useful to make a survival income available for the poor and unemployed part of the community. By doing this, many serious social problems are avoided, the fall in consumption is somewhat controlled, and finally the appropriate conditions are created for the community to be able, without further obstacles, to form a suitable majority able to guide the economic management with a democratic direction.

However, it is still not enough. Because the collaboration between economics and finance must include the control of interest rates. As we have seen, the rapid and unlimited decline in interest rates which is following the decline of nominal prices in deflation, leads to zeroing the cost of money and facilitates credit, which will then converge towards speculative activities. Indeed, if the economy remains weak and is not involved in the trend of Stock Market rising prices, the demand for credit coming from the real economy will remain weak with the aim of maintaining the *status quo* and of solving the cash shortages of companies due to market weakness, while the share allocated to benefit investments will be decreased.

In other words, when the economic situation tends to fail, the majority of the community, through the implicit and explicit information coming from the market, will have the same conviction about the uncertain economic trend. For the simple reason that is impossible any divergence between the positions of the majority and the market. The market represents the final synthesis of the options shared by the majority of the community and that's why it is just impossible that there can be any divergence between those who arrange and implement the economic activities and the market's potential expressed by this collective will. *Ergo* wanting to force the general pressure expressed by the majority is a vain and hopeless purpose.

We may ask at this point why the community's mistrust of prospects is the same that gives shape and substance to the speculative tension aiming to push up the values of Stock Market and patrimonial assets. A clear dichotomy, therefore, between the underlying weakness of real economy and the high speculative tension, which obviously tends to leave out the daily working activities to make money and prefers to earn more easily by playing with the rising stock market values.

In other words, the community cannot be understood just as a single and undifferentiated entity. On the contrary, its characteristic is the intrinsic and instinctive ability to cooperate in order to form a common reflection on important issues. This doesn't mean that this process -sometimes complex and difficult to be defined- can involve the entire totality of its components. The common reflection on a specific topic is always a synthesis of the social exchanges from the respective positions. Exchange of opinions which, in a variable period of time, can make it possible to form a consensus majority. Also in this case

there isn't any *deus ex machina* directing this mechanism that makes possible the unity of thought in a community. This is rather a constitutive feature of human socialization: that is, the ability to give substance to constructive majorities, when and if required by circumstances.

Following these brief reflections, it shouldn't be surprising that there is a majority in the community, which follows the natural indication about economics because it is fully shared. And at the same time there is a minority that believes the options offered can be used, in particular those coming from deflation, taking the opportunity for a personal advantage by speculating on the value of certain assets. Therefore, the real economy can essentially be represented by the majority of the community, which therefore defines the expected trend of the weak economic situation. In the same way we can identify as a minority, that part of the community showing a great interest in speculation and conversely a very minimal attention towards the collective interest.

The democratic principle of selection and choice of the team to which to entrust the governance of the economy, is based on the principles of majority and relative minority. The modern democracies are generally the result of a long and even tormented historical evolution of thought first, and then of the civil institutions that together constitute the very basic structure of democracy. But the role of the majority and its formation in human society is part of a typical ability of intelligent beings and therefore constitutes the founding element of the choice in favor of community life.

That is, we have to believe that the ability to form a majority on the economic issue is a preliminary attribute engraved in the DNA of human beings. In fact, the relationship that binds nature and humankind together to safeguard life, is based on this attribute. Safeguard which also means respect for the whole creation around us, on whose integrity the preservation of life for future generations fully depends.

We can imagine that the mediation that allows the formation of a majority on economic issues is the sum of many factors: the exchanged opinions and ideas, the positions taken by experts in the subject who refine the proposals, and finally all the communication systems working within the social field. The formation of the majority requires time for the circulation of ideas, for the comparison and definition of projects, which are enormously benefited by the media, by communication technology, by the possibility of staying connected. Yet, we should generally think that the promotion of ideas destined to become majority, is facilitated by the *quid* of sensations and moods pervading the whole reality in which we live. These are at least in part driven by the basic request of nature, which demands a pause to reduce pollution and to return to the path of relative compatibility and possible balance. In the end, we must believe that the resulting goal may be achieved also with the contribution of the basic need to give substance to a majority: a basic need that induces everyone to contribute or accept those ideas that will be adopted by the majority.

3. Result

3.1 The Majority in the Community Is the Guardian Preserving the Relationship with Nature

Humankind has the freedom to choose the path to follow in economics. There is a peculiar way, let's say somewhat uncomfortable but with some advantages, which however is often abandoned; yet in the end, though even more arduous and difficult, it becomes unavoidable. In the case of the economy, in fact, where the choices are collective and not individual, the choice mechanism is adopted by the complex action that leads us to favor a majority in the selection to be made. Therefore, we can also make some mistakes precisely because the convergence of consensus towards a single choice in the economic field, would need first and foremost some more time. Nevertheless, often the time available to develop a common point of view is somehow limited, too short compared to the right time required by a majority convergence on certain issues. This could partly explain that the exceptions to the relatively compatible development path are generally numerous and quite frequently they become gangrenous like wounds not healed for too long, thus accumulating unexpected anomalies.

Thus, the relationship between community and nature can become complex when it comes to deciding whether to return to the path of relative compatibility, which can be quite intricate if the economic system has for a long way traveled in the sub-world. In this case, even an extended pause may not be enough to overcome the instability. A long permanence in the sub-world can lead not only to an irregular economic cycle but also to a high rate of inflation (or deflation). In this case, indeed quite frequent in the past experience, the scenario often becomes complicated due to attempts to boost the conjuncture cycle with deficit support interventions, in the hope of being able to stimulate the recovery. The results are often modest and short-lived and may be followed by an unexpected worsening of the situation.

Let me repeat that in both cases of nominal alteration of prices, the natural underlying requirement is a more or less extended pause for the return to the path, sometimes complicated, of an almost complete compatibility. Well, in this hypothesis a majority should be coagulated with the necessary speed and should essentially welcome the choices of a good government that follows the natural tension. If, instead, the usual rule of giving a boost to support the recovery of weak economy would be followed, then we could feel a subtle but widespread dissent from the community also because it is the general mood of the community that in the end decides whether the economic situation has to be rising or falling. So, if there is this veiled dissent on the initiatives of the economic management, it is quite useless to think that there could be the expected advantage coming from the maneuver to support the conjuncture cycle. As saying that it seems a clever behavior, when making choices about monetary alterations, to test first the feeling of the community and its possible disagreement with the proposals made.

It goes without saying that the majority is formed by following synthetic schemes about problems in economics. Not so much and not only for the individual difficulties, since they are not used to that kind of issues, when seeking consensus on scientific questions. In any case, we cannot exclude that at least

part of the group may coagulate some schematic ideas on the programs to be used to solve or at least to begin to solve the complex situations caused by accumulated delays or incorrect interventions and anyway in contrast to the natural setting. In other words, it isn't surprising at all that our neighbor, although he doesn't have access to any kind of studies on the subject, may manifest some schematic but progressive ideas for the solution or at least the beginning of a solution for difficult economic conditions. That is, those economic conditions which have long been within the sub-world and therefore became quite complicated.

Apart from these particular cases of foresight, the formation of a majority coalition requires that any problem to be submitted to the community's examination should be summarized in simple and immediately understandable ideas. In other words, when it is argued that a good governance should definitely listen to the majority in the community before doing any corrective action, we are actually referring to the basic question. That is, what is the main natural setting adopted to try to settle and resolve the question of how to get out of the sub-world. By doing so, it can be confirmed that the majority may agree to accept an austerity period in the coming years, for example to defeat the high inflation. Or alternatively, to what extent would be opportune or not to start at the same time a project to support the cycle, in order to contrast, correct and mitigate the sub-world anomalies.

As mentioned, in these cases it must be a priority for the good governance to take actions to help and collaborate in the formation of a stable majority. I am referring to the poverty increase and to the growing number of families who remain without a job, due to the emergency in progress. To that people, to those families, with every possible priority the good governance must provide the means of survival for the period of economic decline and crisis. In fact, it is a question of preventing the mass of excluded, who are oppressed by discontent for survival reasons, from becoming an obstacle to the formation of a majority and therefore of a directive of natural origin about the corrective interventions needed.

A preliminary action, therefore, which in addition to being dictated by obvious *social reasons* and substantial correctness, can play an essential role in involving and assisting a majority that collaborates with the good governance. A preliminary social intervention is even more necessary to fight the anomaly which now affects most countries: that is, the unequal distribution of wealth and income. The extended stay in the sub-world, attested by the long permanence of deflation in the scenario, is the reason and cause of this absurd and socially dangerous concentration of wealth and income in the area of richest classes.

It shouldn't be surprising that this upward dragging of wealth and incomes is an anomaly caused by the deviation from the path of almost complete compatibility. In fact, within a situation of acceptable relationship between nature and humankind, this disconcerting phenomenon could not even occur. As we have seen, one mechanism activating this upward transmission of incomes is the long-lasting deflation that mainly encourages the speculative spirit essentially awakened and carried on by the cost of money reduced or near to zero. The correction of this anomaly is essential and may be done through

a solidarity economic policy that gives back to the poor and less fortunate classes what has been taken away by the negative involutions of the general management of the economy.

Certainly, that's easier said than done, just to speak concretely! However, the experience we have lived in these recent pandemic years shows that this solidarity policy has been implemented in many countries starting right from the United States and the European Union. It wasn't certainly the difficulty created by the virus spread that created the positive conditions for the implementation of solidarity policies in favor of the most marginalized social groups. However, it can be argued that governments were judged also, and perhaps mainly, for the interventions made to contrast the virus diffusion and for the infection control policies implemented. And this has maybe dampened the contrary moods opposed to these solidarity interventions by a minority part of the community, which actually coincides (as it happens) with the classes favored by the upward dragging of incomes. The fact remains that the concentration of wealth is creating the need for governments, at a territorial and continental level, to provide -through an income balancing policy- a support with a survival income given to those who don't have work or resources. This reality, created by the wealth concentration, is fueled by the financial tendency to move in a circuit almost independent of the real economy. A circuit that expands to the detriment of real economy, so that the finance seems to partially give up its real function of collaboration by supporting the needs of the real economy. According to this perspective, the intervention of economic policy in support of the income of the less favored part of the community, becomes essential to return to the real economy at least part of the resources, which can be used for social purposes. A measure that has social but also economic purposes, because obviously in this way the consumption level should be maintained, and the weak cycle would be supported.

At this point we should understand whether the boost to the economic cycle offered by the joint maneuver of monetary and economic interventions, which requires an amount often sustained by public resources in deficit, can be considered a behavior in contrast with the natural orientation. Natural orientation that in the case of deflation tends in any case to a pause in the attempt of rebalancing the relationship with the environment. Considering that the solidarity intervention of economic policy intervenes to reduce the negative effects on the unequal income distribution, which are a bad product of the sub-world, one might believe that these interventions are not in contrast with the natural orientation. The question can also highlight the difficulties encountered when the time spent in the sub-world has been extended and the alterations in the income distribution resulted amplified. To shed light on such a delicate and important issue, perhaps it is appropriate to reflect carefully on the potential coexistence of various support interventions during a somewhat regressive period of the economic cycle. We can examine in this regard what happened during the serious 2008-2010 financial crisis, which broke out after the breaking of the speculative bubble called 'subprime crisis', which involved the whole economy at a global level. On that occasion, various and different economic policy orientations were adopted by the main countries under the struggle of a crisis comparable to the Great Crash of 1929 caused by an abnormal speculative bubble. (Note 12)

3.1.1 The Contradictory Behavior of the Economy in the Post-Financial Crisis of 2008-2010

In that situation, the European countries and the United States resorted to public debt with unusual abundance to support the large companies in serious financial difficulties and the families partially unable to cope with the repayment of mortgages. These were solidarity interventions in favor of those who were about to lose their homes and it was essentially an economic policy supporting the economy in order to avoid a fall of the economic system into a very serious depression. Financially strong countries with a relatively low financial exposure of their public sector, chose in fact this way.

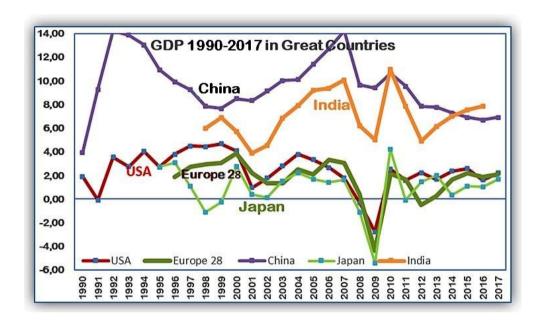


Figure 10. GDP Trend in USA, France, Germany, Italy 1990-2017 (in percentage)

Other countries and in particular Italy, afflicted by a massive public debt which at the time was equal to 120% of GDP, felt the difficulty in deploying their public finance so broadly and therefore contained their spending decisions in relation to the support both to businesses and families. The results were partly somewhat surprising. Unlike the expectation, countries like Italy, which didn't use large amounts of great public resources in deficit, had a worse fate than that for example of USA. As can be seen by looking at **Figure 10**, France, Germany and USA, the countries that at the time of financial crisis increased the use of their public resources, suffered a less severe recession (- 2.5% in 2008) than Italy (GDP reduction of 5% in 2008). And not only that. The resilience, after the sharp GDP drop, was weak or very weak for Italy, while it remained significant for the other three countries in comparison. Moreover, the drastic GDP drop, and the slow recovery had the effect of a raising public debt (125% in relation to GDP) due to the sharp decrease in GDP. On the contrary, for the other three countries in comparison, the phenomenon is not repeated, apart from the obvious increase in public debt due to the amount of resources used to support the economy.

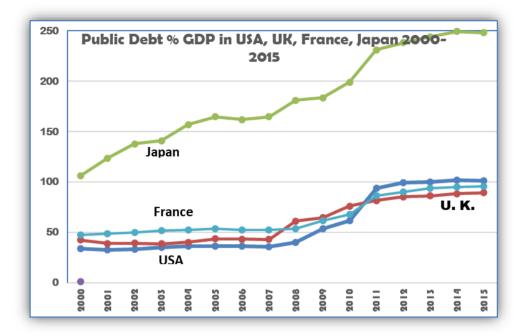


Figure 11. Public Debt in USA, France, Germany and Italy 2000-2015

Source: Elaborations on OECD data

Well, this behavior seems contradictory with the thesis that the pause and the recession are playing a role of connection with the environmental needs and are therefore favoring a potential recovery of the economy. For Italy instead, the recovery of the economy after the 2008 financial crisis did not occur. Why? To try to answer this question, we have to remember perhaps that the abrupt recession we are talking about was the result of a worldwide speculative acceleration and not just a demand from the natural system requiring a break to clarify the pollution state. As saying that all damages produced by the speculative process affect the real economy and are therefore added to the demand for a downturn which instead comes from the relationship with the environment. Therefore, we can say that the abrupt recession of 2008 has accumulated an amplification of the economic shock, which in large part was the negative legacy of the financial crisis, which would affect the real economy.

It should be added that the breaking of the speculative bubble and the consequent financial crisis seem to have no effect on the issue of wealth and income distribution which, on the contrary, is worsened by the loss of work and poverty increase in the lower sections of the community.

Having thus posed the problem, it is necessary to separate the two converging actions due to the post-speculation and to the concurrent problem coming from natural pause. Thus, remaining on a rational level, we can admit that actions made to control the damage caused by post-speculation are tolerated or even necessary. To counter that damage, solidarity interventions become opportune and necessary to provide a survival income to those who have lost their jobs and at the same time to help companies in preventing healthy and innovative businesses from being put off-market due to lack of cash and credit difficulties. In a context of financial crisis after a speculative bubble, an economic

policy of solidarity and support for businesses becomes compatible and would involve also an attenuation of the economic cycle fall, while respecting anyway the natural prescription of the pause. The expected result is to halve the GDP decline and, in any case, to support families and businesses hit hard by the crisis.

As demonstrated in fact by the case of USA, which in the post-crisis 2008 increased the public debt in terms of GDP by about 20%, managing however to contain the GDP decline by about half. Experience therefore confirms that this path (aid to businesses and families) is practicable and does not meet any resistance due to the relationship with the environment, although overloaded by tensions. The rational utility of support interventions, in the difficult circumstances described, is also confirmed by the resilience shown by the USA in the following two years. As can be seen in **Figure 12**, in the period 2010-2015 the American economy travels at an average of 2-2.2% that is the same average of the 2000s.

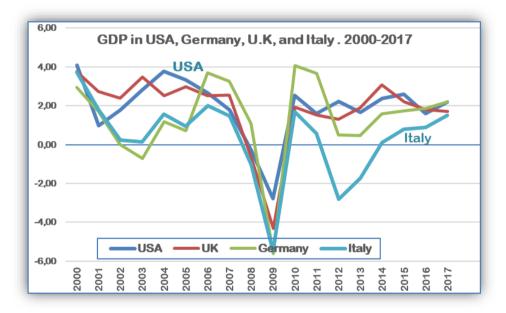


Figure 12. GDP Trend in USA, Germany, UK, Italy in 2000-2017 (in percentage)

Source: Elaborations on OECD data

The situation in Italy after the speculative crisis is different and quite difficult. First of all, the recession has deeply affected the economy of the 'Bel Paese' (Beautiful Country) which suffered a decline with a -5% in 2008 and a -1.5% in the following year. In the following years, the recovery is delayed and always in the period 2010-2015 the growth is actually at a standstill (annual average of 0.5%).

This important precedent is telling us not only that in the event of a deep recession the use of economic policy intervention tools is tolerated and anyway necessary to avoid an unexpected extension of recession and the chronic delay of recovery. But is also recalling us that even in cases of minor economic impact, the solidarity action as a tool to compensate at least for a small part the unequal

imbalance of wealth distribution, must be considered possible and even more, necessary. And above all they are not in contradiction with the natural tendencies for the recovery of a less troubled course in the relationship with nature.

To justify this behavior that appears in contrast with the position of conjuncture declining for a temporary pause, we need to consider that the deviations imposed and supported by the sub-world are essentially in contradiction with the equitable income distribution, which is the norm in the economy which develops in balance with the nature.

It therefore becomes unavoidable that the economy gradually turns towards a condition of fair and non-class sharing of wealth and income and this would happen together with a loosening of our links with the sub-world. At this point, we are not talking about an optimistic vision but rather about an evolution that will progress through the growing attention towards science and research, which will help us find the way out from economic alterations.

From this point of view, we must say that the anomalies are widespread among the various continental economies, unlike the group of countries where is stronger the will to advance on the path of research, science, and collective well-being. This difference is a serious disparity that marks our way of conducting economic affairs with a sense of selfishness and the continued desire for primacy. All this is in contrast with the development evolution at a natural level which instead requires a more balanced development dynamic. It is according to this point of view that we should focus the unexpected rush of some countries on the development path of research, science, economic well-being: countries as large as China, which in just over thirty years passed from being a developing country to being a protagonist of world history and antagonist of the American leadership.

This impetuous rush towards development of some Southeast Asian countries, and in particular China, can only be explained by referring to the potential natural balance that should mark the development line of science, research and economic well-being in all continents. Therefore, the Asian area rush is to be placed in this direction, although the forced acceleration that has characterized that rush in recent years seems to have been done at the expense of a more balanced development in those continents still being behind on the road to development. Perhaps this is a further indication that the development of the world economy is in search of a growth path -so far not yet realized- that is relatively compatible with the environment and that the different positions of the continents on the development path is to be considered among the distortions typical of the sub-world.

All this just to say that the process which led to a leading role country such as China, and to a slower alignment process of the lagging continents, is far from being over. In the coming years we should see the development acceleration in African countries, starting with the Mediterranean and sub-Saharan countries. And this for the simple reason that it is an evolution imposed by the natural rule. The diffusion of research and science in ever larger areas of the globe is essential for humanity, in order to achieve the desired state of sustainable balance.

It should be added that according to this point of view, the attempts to stop or slow down the globalization results, that is, to refrain industrial and commercial enterprises from extending their production in backward areas, so helping them in their economic advancement, are deeply wrong. In fact, these attempts move on the same ground that caused the damage coming, as we know, from the sub-world and therefore contribute to hold the world economy inside the erroneous area.

Therefore, the anomalies that are the consequence of the fall of global economy into the sub-world circuit are local, such as also the economic development according to the conjuncture pace, the monetary alterations, inflation and deflation, the unequal wealth and income distribution at the level of each country and area with the related problems of speculative takeovers... Moreover, they are also global and therefore also the dissemination of the culture of science and well-being is to be considered at a continental level, as well as the consequences of speculative takeovers extended to entire continental areas, that is, at the level of the whole economy.

The difference between the economic areas of ordinary world and sub-world relies above all in the development terms of the two areas. While in the sub-world level, the development is alternated with involutions of the conjuncture and monetary alterations like inflation and deflation are widespread, instead in the ordinary world these anomalies cannot occur. It makes no sense that in the ordinary world—where could be finally achieved the stage of integral compatibility with nature—the cycle of conjuncture could ever develop. For the simple reason that the economic conjuncture introduces the recession into the economy as a tool to correct the alterations caused by the permanence in the sub-world, a correction that makes no sense in the balanced economy of the ordinary world.

In fact, in the economy compatible with nature, the development follows a linear path and keeps an inclination depending on the growth potentials. Potentials which in turn depend on research and science, which are the real engines allowing to accelerate the evolutionary capacity of humankind. As already mentioned, we are still far from reaching the stage of a linear evolution as demonstrated by the recurrent economic anomalies both at local and global level.

Now it is evident that we are still far from the stage of absolute neutrality of our presence on the planet, but it is equally evident that we must gradually approach that stage. The way to achieve the goal is quite narrow and complicated by the fact that we have spent a lot of time in the sub-world area and many negative characteristics that we have accumulated are opposed to the expected result. In this regard, it must be said that in the process of approaching the neutrality stage, there isn't only the negativity of the fall in the sub-world. In fact, there is also an almost ordinary path towards development, which we can configure as the narrow passage of relative compatibility with the environment, that is, a path that reduces to the minimum possible, given the state of science and research, the level of pollution released by human beings into the planet.

It is therefore possible to identify an ideal line that in the more or less near future will connect us to a state of absolute compatibility with the planet, following the path of the least possible damage to the surrounding environment that is our common heritage. How to understand if we are back on the right development line of the least damage, is relatively easy. Individual countries need to return to the linear and gradual development, the only one that can allow to travel on this ideal line of minimal environmental damage. In this regard, we should recall that the solidarity-based economic policy interventions, aimed at providing a survival income to those who lose their jobs and to poor families, are not only tolerated but necessary. In addition, these interventions must be a priority in an adverse economic situation, to encourage the formation of a majority in the community that can accept a cycle pause, with the prospect that the operation will find its reward in the country's resilience and development capability. Furthermore, in the event of extended recession, it seems possible to combine the probably restrictive monetary policy with interventions to support the economic cycle, in order to safeguard companies which, due to cash problems, risk to be put out of business although they have innovative capacities and still good potential for development.

It is also necessary that the globalization keeps going on without stopping and above all without obstacles that could compromise its evolution, according to the natural process that is trying to achieve a more equitable and fair distribution of the resources offered by culture and research between the different continents. In summary, therefore, seeking the path of linear development -which coincides with the development path that has the lowest impact on nature- essentially means not to oppose the natural growth process of the economy, at a single country level and at a continental level.

In this regard, it should be considered that during the nineties and the first five years of the 2000s the world economy approached the line of a path with minimal natural damage and was rewarded with an economic growth higher than the previous decades. Not only that. The terrible inflation tyranny that continued until mid-1980s, was partially mitigated. It isn't certainly just a coincidence that this phase of liberation from that tyranny occurred in parallel with the progressive liberation of some South Asian countries, and especially of China, from the underdevelopment weight. Many analysts look to the backwardness of this great Asian country that is China in the field of democratic reforms, individual rights, individual freedoms. Apart from the fact that these topics do not fit, if not just laterally, into the subject of this chapter, the problem is certainly not that of pushing the great Asian country towards democracy. Democracy is a fact of culture and sociality of individual peoples/countries.

We should rather push for the shift of globalization process to the advantage of forgotten areas, such as Africa, so that the acceleration of economic growth known for over thirty years by China, and in part by Southeast Asia, is finally directed towards the black continent. Africa today has unique development opportunities, provided that the commercial and industrial interest at international level is not opposed, because only that international interest can give a decisive boost to a new globalization phase by the next ten or twenty years. Last but not least, it should be considered that in 2020 the worldwide diffusion of COVID 19 pandemic and the scarcity of vaccines have exacerbated the inequality of resource distribution and the incidence of poverty in all sub-Saharan countries, therefore worsening also the unfair divergence of development levels in the whole area.

3.2 Science Is the Facilitator of Our Relationship with Nature

The relationship between the community majority and the science and research in all fields, should always remain no less than excellent. The majority in a community will certainly have people involved in science and research among its members. But the issue now interesting for us, concerns the greater or lesser predisposition of that majority regarding the scientific goals already achieved and those that are in view, at a local or international level. Or even better, we should understand if that community majority will be confident on the scientific advancements achieved by its members (also internationally), and will therefore be happy for the results achieved.

To answer this question, which is fundamental for a community perceived as the terminal of natural rules, we can also in this case resort to the recent experience of worldwide spreading pandemic. We can immediately admit the equation that the new vaccines to eradicate the virus were accepted by a very large majority, this time worldwide, for a conscious and widespread belief in the goodness of science. We can say indeed that the governments in different countries are judged also, and maybe mainly, by the results they have achieved in the fight against the spreading infections. A positive triangle thus has been created between majority, governments and fight against virus: this triangle essentially relies on science, so allowing the appropriate convergence of the majority and government positions about the right solutions to the COVID-19 problem.

The issue of the fight against virus makes quite clear the importance that science is assuming in the collective consciousness, even for the formation of a majority inside the community that is guardian and controller of the relationship with nature. As saying that science is becoming both a leading factor in the formation of a majority and a cohesion factor between majority and governments on the question of the fight against any kind of epidemic. It is certainly no coincidence that a minority in the community, which generally doesn't agree with the validity of therapeutic power of vaccines, automatically takes position within the anti-scientific group, thus by going against the validity of science assumes the so-called "no-vax" positions.

Thus the spreading pandemic offers an opportunity to ascertain, and this time globally, the validity of science as a remedy and the importance of research considered as the hope for the future of the greatest majority of people. The confidence in science is confirmed by the results, that is, by the degree of protection from the disease or at least from its more severe level demonstrated by the relatively low number of hospitalizations among the vaccinated people. Instead, in a sad contrast, the number of deaths among the "no-vax" has always been growing. But the trust in science of the communities was high already before, and this was therefore evident even before the proven benefits of large-scale distribution of vaccines.

Why so much attention about research and science? Well, science must be considered an important *trait-d'union* in the relationship between community and nature. Having trust in science and in research products is a necessity, considering that each one of us may also be expert in a certain knowledge field, maybe more than one, but we remain indebted to all the rest of human knowledge. In particular, in the

relationship between humankind and nature the signals received by the community from the environment, are inevitably synthetic and are caught only for the essential. As mentioned, deflation is a message that acts on the price system and therefore induces the whole community and each of one us to have doubts about the economic prospects. Therefore, even without having clearly and fully understood the reasons for the discomfort, the community is enabled to criticize the management of the economy, which derailed from the path of relative and possible stability and compatibility. Also, in this case there is a management model with linear development that is based on the trust in science: this model is then proposed in contrast to the development model of economic cycle, typical of the sub-world.

The reason why the community in its majority shows an *a priori* trust in science must presumably be found in the tireless curiosity of human beings who perhaps believe in science in order to find the ultimate explanation of life presence, of their presence, in Creation. Apart from these last considerations, the theme of a future absolute neutrality between humankind and nature is strictly interconnected with the theme of research and science. *Ergo* it appears essential for the majority of the community to maintain a strong trust in science.

We have already clarified that a good governance is identified by the right skill and firmness used as tools to try to keep the economy on the path of relative compatibility with the environment. A narrow road indeed, nevertheless it brings strong advantages, not only for a growing respect (finally!) for nature, but also because it offers the right potential for a linear and gradually increasing development. Beyond that, there is only the sub-world kingdom which instead not only limits the economic potential but also modifies the social relations, due to the disadvantages affecting the world of work and to the poverty increase.

We have already clarified that a good governance is identified by the right skill and firmness used as tools to try to keep the economy on the path of relative compatibility with the environment. A narrow road indeed, nevertheless it brings strong advantages, not only for a growing respect (finally!) for nature, but also because it offers the right potential for a linear and gradually increasing development. Beyond that, there is only the kingdom of subworld which instead not only limits the economic potential but also modifies the social relations, due to the disadvantages affecting the world of work and to the poverty increase. It is not hard to imagine that the scientific contribution is and will be even more decisive in the long journey that still separates our activities from the condition of absolute neutrality with the environment. It is equally evident that the permanence in the sub-world dimension not only puts a certain distance from the path of relative compatibility, but also makes us to lose time and to deviate from the right path, that is, the only one suitable for achieving the goal of a complete compatibility.

The importance of science as a good mediator between humankind and nature also emerges from the singular and prompt attention of communities in the most advanced countries to the issue of respect to the whole natural world in its various aspects. Starting with the issue of global warming on our planet, the production of greenhouse gases and CO2, the recycling needed for products such as plastics, the

'green behavior' in commercial and industrial activities... A relatively abrupt change made by the community in paying due attention to the issues of planet's health that have essentially forced many advanced industries to report, also through the common advertising, on the changes underway to reduce pollution in industrial production, to give confirmations on recycling targets, to share news on new farming methods, etc.

Within a few years, from the general inattention to ecological issues we have moved to a convinced attention in choosing, for our consumption, products that comply with the new rules respectful of the green economy. Now it is certainly quite surprising to note the labor that led most of advanced countries, which are the largest producers of pollutants, to change their spending decisions relatively quickly, from the quality control to the way of producing the goods to be marketed. It is therefore probable that the changed mood of the communities regarding the issue of safeguarding the planet's health, is the consequence of the evident favor of collectivities towards science and the consequent attention to news and information disseminated on this kind of subjects.

It therefore appears evident that the facilitator task to improve the relationship with nature is entrusted by the collectivities to science, also as a consequence of the strong relation with the growing confidence in research and its results. Moreover, it takes a deep meaning because the path that still separates humankind from the condition of absolute neutrality is in the same way conditioned by the quality achieved by the research and its objectives. It is equally evident that the way to reach this goal cannot be internal to the sub-world, but must lie at a given point, though for now the timing is not determined, on the road of the least damage caused to the environment.

3.2.1 The Interference Caused on Economic Activities by the Coexistence with the Pandemic

Based on this last consideration, we can argue whether the long struggle suffered by the whole humanity for the stubborn presence of the coronavirus has in any way changed the previous scenario of the global economy, which in turn has been struggling for a long time with deflation. This is a clear indication of the permanence of many economies in the sub-world, which means stagnation and alterations. The problem is therefore to understand if the long exposure of global economy to the virus and the interference caused on economic activities by the coexistence with the pandemic, has had or is still having some impact on the attempt to escape from the sub-world, *ergo* from the deflation which is the message warning on the diversion from the path of least damage.

To answer this question, I would not rely so much on the recovery of the cycle conjuncture that is now affecting most Western countries, Southeast Asian countries, and China. Although this is a good indicator that the economy is improving and is therefore a favorable signal that cannot be linked to the anomalies of the sub-world. However, the positive story we are experiencing could be just an anticipation of the economic cycle, destined to run out in the coming months. Therefore, perhaps the factors more suitable to give some substance to the hypothesis of an exit from the sub-world or of a reduced instability of the economic system, could be the state of the various monetary anomalies and particularly of deflation.

On the issue of rising prices there are some widespread concerns (Note 13) that inflation, which came out in a world otherwise in deflation, may regain strength as in the years of great global inflation. There are fears that the phenomenon could degenerate, then causing a sudden upward leap in the rate of rise in prices. Wages are low and the Unions' claims are feared because they would demand the adjustment of wages according to the rising cost of living. In short, it is argued that the economic world has completely changed by turning 360 degrees and that it is possible that deflation, which has so far slowed the rising prices, could erupt into a new phase of inflation. As mentioned, in the transition from inflation to deflation during the 1980s and 1990s it took over a decade for the rush of rising nominal price to turn into its substantial block in the 2000s. That is, the transition from one message to the other (i.e., from inflation to deflation) didn't occur within just a semester but took over a decade to be completed.

This certainly doesn't represent a rule, but the previous one certainly indicates that the transition from one message mode to the other is not so easy. Moreover, we shouldn't forget that both these message forms are not available or in the power of any organization or institution, be it private or public, that can dispose of their use. On the other hand, these two nominal alterations of the price system are messages to the community to signal that the path taken by the economy is outside the path of least damage to the natural world, the world we live. From this point of view, therefore, both seem to postulate a pause in the economic development to help the environment in the work of waste disposal, that is, the waste produced by our activities. *Ergo*, if we really were at the beginning of a new phase of inflation, we shouldn't even notice the positive trend that is emerging instead in the economic situation, despite the spread of the epidemic in the first months of winter 2022 due to the season and a virus variant.

It should be added that given these widespread concerns about inflation, the main Central Banks continue to talk of expectations still anchored, although the situation would require some attention. For the European Central Bank, the inflation forecasts pointed to 3.2% in 2022, but to 1.8% in 2023 and to 1.8% in 2024, with a core inflation still below 2 % and converging to 1.8% in 2024. There wouldn't be therefore the conditions to make any action on rising rates in the Europe of Euro area.

Moreover, it must be considered that the rising prices of some industrial products, of oil and gas, of some important raw materials, are due to a sudden and unexpected increase in demand, as a consequence of the strong resumption of activities. Faced with an offer that, even for speculative reasons, is reaching the required volumes very slowly, the international prices are therefore all in motion and the increases are spreading with a cascade effect and in successive waves, affecting the consumer prices. Therefore, this is a typical trend involving the transmission of the main and highest international prices, which have expanded by successive waves but over time lose strength and become exhausted. As already highlighted, inflation is quite different: the waves do not run out but expand according to a constant or slightly increasing acceleration and continue to expand if their motion is not contrasted above all by economic and monetary policies consistent with the state of economy. Based on

this definition, the impulses that we can see in prices since autumn 2021 aren't an inflationary symptom or a 'changing of the guard' between deflation and inflation, because they are mainly just temporary waves due to the trend in international prices and to their gradual effects on consumption prices.

Obviously, the fact remains that the unavoidable price increases will create tensions within the community, due to the rigidity involving wages and salaries, which therefore will suffer a reduction in their purchasing power. However, in the case we are analyzing these tensions should be mitigated when the supply will be adjusted according to the market requirements and when the demand will be finally regularized. On the other hand, the speculative tensions that in recent months have added improper pressures on international prices should disappear with the normalization of the market. This could suggest that in the next few months some of the prices that increased too much could fall and return to the previous average levels. However, based on the projections of the European Central Bank, as already mentioned, this doesn't match the expected level of rising prices in the Europe of euro area. Technically, we are not facing a new inflation episode, but rather the price tensions caused by an inadequate supply to meet the requirements of the sudden and unexpected recovery of the world

inadequate supply to meet the requirements of the sudden and unexpected recovery of the world economic situation. So this is the real news. That is, the response of prices, also unexpected, to the solicitations of the prices of certain raw materials and intermediate products: this is the novelty that deserves to be appreciated in this winter of 2022. Why? Well, let's remember that in the years of great speculation in the mid-2000s, the rise of many commodities and of oil, which at the time exceeded 90 dollars a barrel, had a slight impact on inflation rates and remained anchored at 2.5-3.5%. I would define the current situation quite different, indeed, as the rising prices have touched 6-7% in the USA and 5-6% in Europe.

We can easily deduce that the downward pressure of prices due to deflation has been mitigated, so giving way to the price fluctuations under the impulse of market prices for various products and raw materials. As the saying goes, 'Every cloud has a silver lining'... Nevertheless, the fact remains that the global commitment, recently confirmed also in Copenhagen, to gradually reduce the use of fossil fuels and then replace them with renewable energy and hydrogen technology, has been added to the increased energy prices, already under the usual speculative pressure (Note 14).

The combined effect of rising energy prices and measures to respect the environment, regarding the energy will always affect the costs of electricity and gas for families. Given that in the coming months we should see a price adjustment especially for gas, it is essential that the choice in favor of renewable energies does not decade through the increased bills on consumers, especially poorest people and large families. And this because the general trend towards renewable energies shouldn't be troubled by the higher expenses to be paid by consumers. Moreover, this is a typical case of the tensions caused by following the path of least damage to nature; tensions that must be appropriately relieved by intervention policies in favor of the poorest categories and large families. In a speculative context, in the current case favored by an extremely permissive monetary policy and low-cost credit, the economic

policy must take on the task of attenuating the social tensions due to an improper inequality in the income distribution. The economic policy thus assumes the task of returning to the less favored categories of the community at least part of the wealth and income that flowed to the highest levels of the social ladder.

We said that deflation has given way to fluctuations in international prices, that is, the beginning of current year was less troubled by deflation and probably the easing of price grip will continue in the course of 2022. However, in November 2021 the prices marked an increase of about 6.8% in America, 5.8% in Europe and 5% in Italy. Well, as the accentuated grip of deflation indicates that the economy has become more fragile, in the same way we can say that the smaller effect of deflation on prices indicates that the economy is improving, and that the recovery is consolidating. The relationship that seems to link the deflation trend to the economic destiny, is confirmed by the good recovery of the cycle at a general level, with GDP peaks of 7% in the USA and 5,8% in Italy (Note 15).

Therefore, it is inappropriate to talk about inflation at this stage of epidemic, because otherwise we should see that the bubble of rising prices continues to grow according to a constant acceleration, which will be endless if there will be no corrective actions. This doesn't appear to be the case, as also attested by the Central Banks which, albeit cautiously, argue that prices will gradually decline in 2022 (Note 16), that is, they are in the classic situation of price tensions caused by rising international prices in this economic recovery at a global level. This revival of tensions as well as the widespread concern about the reappearance of the seventies-like inflation is a leitmotif that seems orchestrated also by the speculative action that is inflating international prices. Unfortunately, inflation is an abused tool always in favor of speculation and income transfer towards the top of social ladder. However, the warning cry must rather concern the households who are facing the rise of daily prices in a context of steady wages and incomes, with the employment still remaining below the pre-pandemic levels. The emergency income measures that the governments of the main countries have decided in favor of the poorest categories of the community has partly mitigated the social problem triggered by rising prices, then the attention is focused on the coming months to ascertain whether the jump of prices could be partially reabsorbed.

4. Conclusion

Starting from the concept of *invisible hand* used by Adam Smith and with different declination also by Walras and Pareto who recalled the role of Providence in the market (Note 17), it is certainly not difficult to reflect on the role of universal laws and of the link existing between humankind and natural world, that is, the environment in which we all live. The providential character of this relationship shouldn't be surprising at all if we reflect on the objective of the implicit pact made between humankind and environment around us: the preservation of life on the planet in the past long season, but also its safeguard for the future generations.

It is an apparently tenuous bond based on whispers coming from the nature and subtly perceived by the community; signals that together with the price system provide a general indication on the status of this relationship. That's enough to create growing concerns about the economic prospects or rather about the possible consequences of our presence on the planet. In other words, the problem is to slow down development when there is an excess of pollutants that must be removed. We have configured these anomalies essentially by making reference to a sub-world in which the good rules of a balanced development can be subverted and deteriorate. Therefore, the delay emerging when responding to the calls of nature becomes an accomplice and even a reason for development aberrations, such as alterations in development direction, social troubles resulting from the improper and unequal wealth and income distribution, continuous financial crises, etc. These are all phenomena that cannot exist in the area of ordinary economy, that is, the one characterized by the lowest damage to the nature. It should be added that the path of least damage to nature is the only one that allows us to strengthen development, to follow a linear development of the economy and to ensure a correct and equitable income distribution through the work availability. It is not easy to follow the path of least damage, as certainly highlighted by the fact that we have been immersed for years in the grip of deflation with all its deviations.

It must be admitted with the due clarity that the humankind fate is not linked to or depends on nature, which offers only messages and whispers to give a general guidance to our behavior towards the stability and the greatest possible compatibility. The fate of future generations and of future life in general, lies only in the hands of the communities, who are responsible for the final choices about the direction to be taken in the economic management. In this regard, it should be noted that even the monetary messages, i.e. inflation and deflation, which are directly linked to the nature and to the universal basic number we have mentioned several times, are not neutral within the economic and social relations. The tools used are repetition and progressive impact (e.g. inflation acceleration), to draw the attention and interest of the community towards the altered destiny of the economy: all this postulates the need to make some action to interrupt this negative progression.

In this unbalanced relationship between humankind and natural environment, it is the humankind that really holds the fate of its own survival. The world of science is actually the helpful heritage that humanity keeps in store for itself, and which can help find the keys to the final meaning of its existence. Science is like a powerful telescope that allows us to learn more about Mother Nature and which, by virtue of this acquired knowledge, becomes an indispensable and necessary tool to regulate our relationship with nature. In other words, the scientific work helps us regulating the relationship with nature on bases that are useful for our survival and, in the short term, provides us with a key able to give a correct direction to the vessel of global economy and to the economic development of all continental areas. Therefore, in the long generational journey, which requires a friendly relationship with nature, we also have the positive side of a development that, oriented to the least possible damage, is also the bearer of the banner of social justice within the community, of a more equitable and

distributed development potential inside continents, between different continents and in the individual countries; it is the bearer also of the wide and more equal participation in the scientific work, shared by anyone who may be interested in research and is attracted to the curiosity to know more and more deeply the phenomena that accompany our life.

References

- Barrow, J, D., & Tipler, F. J. (1986). *The Anthropic Cosmological Principle* (1st ed.). Oxford University Press. ISBN 978-0-19-282147-8. LCCN 87028148
- Bernanke, B. S. (2000). *Essays on the Great Depression*. Princeton, New Jersey, Princeton University Press. https://doi.org/10.1515/9781400820276
- Carter, B., & Dicke, R. (7 Feb 2017). Large Number Coincidences and the Anthropic Principle in Cosmology. IAU Symposium 63: Confrontation of Cosmological Theories with Observational Data (Dordrecht: Reidel. pp. 291-298). Republished online by Cambridge University Press. https://doi.org/10.1007/978-94-010-2220-0_25
- Cardoso, E. (1992). *Inflation and Poverty*. in NBER Working Paper # 4006. https://doi.org/10.3386/w4006
- Cossiga, G. A. (2017). Stability and Instability of an Economic System: Considerations. *Review of European Studies*, 9(3). https://doi.org/10.5539/res.v9n3p8
- Cossiga, G. A. (2018). The Search for Inflation on a Constant Basis at 2%. *International Journal of Science, Social Sciences*, X(X).
- Cossiga, G. A. (2018). Signals from the World of Economics. The Price Constant and the Democratic Issue. *International Journal of Social and Administrative Sciences*, 3(1), 1-21. https://doi.org/10.18488/journal.136.2018.31.1.21
- Cossiga, G. A. (2018). A New financial crisis could start again from the USA. *Advances in Social Sciences Research Journal*, 5(11). https://doi.org/10.14738/assrj.511.5521
- Geithner, T. F. (2014). STRESS TEST-Reflections on Financial Crises-RH Business Books.
- Friedman, M. (2007). On economics: Selected Papers. University of Chicago Press.
- Hawking, S. A. (1988). *A Brief History of Time* (p. 174). New York: Bantam Books. ISBN 978-0-553-34614-5. https://doi.org/10.1063/1.2811637
- Krugman, P. R. (2009). *The return of depression economics and the crisis 2008*. W.W. Norton & Company, Inc. New York.
- Inquiry Report—THE FINANCIAL CRISIS—Final report of the National Commission on the causes of the financial and economic crisis in the United States—Official Edition 2011
- Penrose, R. (1989). *The Emperor's New Mind: Concerning Computers, Minds, and The Laws of Physics*. Oxford University Press. https://doi.org/10.1093/oso/9780198519737.001.0001
- Penrose, R. (January 1965). Gravitational Collapse and Space-Time Singularities. *Physical Review Letters*, 14(3), 57-59. https://doi.org/10.1103/PhysRevLett.14.57

- Roubini, N., & Mihm, S. (2011). Crisis Economics: A crash in the Future of Finance. Penguin Books.
- Raines, J. P., Leathers, C. G. (2008). *Debt, Innovation and Deflation: The Theories of Veblen, Fisher, Schumpeter and Minsky*. Edward Elgar, Massachusetts,
- Reinhart, C., & Rogoff, K. S. (2009). *The Time Is Different—Eight Centuries of Financial Folly*. Princeton University Press-Princeton and Oxford. https://doi.org/10.1515/9781400831722
- Shilling, A. G. (2001) Deflation. How survive and thrive in coming wave of deflation.
- Roach, S. S. (2009). *The next Asia—Opportunities and challenges for a new globalization*. John Wiley & Sons Inc.
- Schumpeter, J. (1939). Business Cycles: a Theoretical, Historical and Statistical Analysis of the Capitalist Process. McGraw-Hill Book Company: New York-Toronto-London.
- Stiglitz, J. E. (2016). *The EURO. How the common money threatens the future of Europe*. W. W. Norton & Company: New York-London.
- Tipler, F. J. (2003). Intelligent Life in Cosmology. *International Journal of Astrobiology*, 2(2), 141-148. https://doi.org/10.1017/S1473550403001526

OECD—OECD Stat Database, various years

IMF—International Financial Statistics - Database, various years

IMF—World Economic Outlook Update, July 2018

Notes

Note 1.

Note 2. The term "anthropic principle" was coined in 1973 by Brandon Carter during the symposium "Comparison of cosmological theories with data from observations", held in Krakow as part of the celebrations for the 500th anniversary of the birth of Nicolaus Copernicus.

This principle had already been invoked before the formalization made by Carter. In 1957 Robert Dicke wrote that "The age of the universe is now not accidental but conditioned by biological factors ... [changes in the values of fundamental constants of physics] would preclude the existence of man to consider the problem".

The reinterpretation of Carter's statement, carried out in 1986 by John D. Barrow and Frank J. Tipler in the book "The Anthropic Cosmological Principle" provoked some controversies, as the authors proposed a new typology of anthropic principle, called the "ultimate anthropic principle", to explain the apparently incredible coincidences that allow our universe and the intelligent life to exist. Barrow and Tipler pointed out that all the characteristics of the universe seem to depend on a set of fundamental cosmological constants which at the current state of knowledge are considered independent. Since not so much the intelligent life development, but the existence itself of the universe as we know it would fail in the event of infinitesimal variations of these values, they concluded that the current structure of the universe cannot be studied without taking into account our physical needs.

In their book they enunciated three new versions of the anthropic principle, diverging from Carter's statement;

Weak anthropic principle:

"The observed values of all physical and cosmological quantities are not equally probable but are limited by the requirement that there are other places where carbon-based life can evolve and by the requirement that the universe is old enough to have already allowed their existence."

Strong anthropic principle:

"The universe must have innate properties that at some point of its history allow life to develop within it."

Ultimate anthropic principle:

"Intelligent information processing must necessarily develop inside the universe, and once it appears it will never disappear."

Note 3. The 1960s decade ended in the midst of serious economic difficulties. The end of the exchange agreements agreed at Bretton Woods (August 1971), the transition to the fluctuation of exchange rates, the sharp increase in oil price, opened a long period in which two evils considered antithetical up to that moment coexisted: stagnation and inflation. In Italy, inflation was considerably higher than the average of other industrial countries. Between 1973 and 1984 it never dropped below 10 percent. It had important internal causes in addition to the increase of international prices: the strong tensions in the labor market, the increased public spending not accompanied by a revenue increase, the competition scarcity. The loss of the discipline effect represented by the fixed exchange rate system also played a role. The stabilization policy of securities, which had become too onerous, was abandoned. In order to reconcile the investment support with the control of domestic demand, and to contain the interest rate increase, some administrative credit control tools (e.g. loan ceilings, portfolio constraints) and currency controls were introduced in 1973. The tendentially restrictive approach to the monetary conduct, in Italy as in other industrial countries, was aimed towards intermediate quantitative objectives (total internal credit) explicitly declared.

Note 4. The second oil shock of 1979-80 fueled again the price rush. But three factors contributed to promote a process of lowering inflation and of productive system restructuring: in 1979 the EMS became operational, together with a not very accommodating policy, which led to the strengthening of real exchange rate; the acquisition by the Central Bank, starting from 1981, of the full decisional autonomy on the purchase of Treasury Bills not opted by the operators during the periodic auctions (the so-called "divorce"); the wage moderation, resulting from the unemployment strong rise and from the sliding scale weakening. The real interest rates returned then to positive values.

Note 5. Africa is shaping its own destiny and should be referred to as the "African opportunity" instead of the "African threat." By recognizing the African continent as an opportunity, rather than a threat, governments, citizens, and organizations on the continent and around the world will be better positioned to face challenges and further boost positive trends.

Since the beginning of 2015, Africa has experienced more than 27 leadership changes, highlighting the widespread push for greater accountability and democracy. Countries like Mauritius, Botswana, Cape Verde, Namibia, and Ghana, are relatively highly ranked as politically stable and democratic countries. These countries, as well as other rising democracies across Africa, serve as encouragement to international partners that stability can be actually achieved throughout the continent.

Across Africa, governance has improved considerably since 2000. Thirty-four countries, home to 72 percent of Africa's citizens, have improved their governance performance over the last 10 years, and significant improvements can be seen in participation, law rules, and rights, among other categories.

Significant public health improvements have been made in Africa over the past several decades. There have been substantial declines in maternal and child deaths, and the incidence of chronic malnutrition among children under five has decreased by almost 10 percentage points from 1995. Across the continent, life expectancies and healthy life expectancies are rising. Non-monetary dimensions of poverty have also been improving. Many countries, including some of Africa's poorest, are on track to make significant progress in achieving the United Nation's Sustainable Development Goals (SDGs) by 2030. Since 2000, the number of African children enrolled in primary school has increased from 60 million to 150 million.

Note 6. "Considerate la vostra semenza: fatti non foste a viver come bruti ma per seguir virtute e canoscenza" versi 118-120, canto XXVI: Inferno, Divina Commedia. Rev. Henry Francis Cary's version, 1819: "Call to mind from whence ye sprang: ye were not form'd to live the life of brutes but virtue to pursue and knowledge high."

Note 7. Unequal distribution of wealth and its concentration in a few hands, widespread poverty. What are the causes? The reasons that led to this unsustainable situation and its intensification are manifold, but first of all they come from consolidated wealth bringing additional wealth. Thus from that are also deriving various problematic difficulties on: social conditions, racial and gender problems, education level of parents, technological change, health conditions, personal abilities, etc.

A 2014 study made by researchers at Princeton and Northwestern institution concludes that government policies reflect the desires of the wealthy part of population, and that the vast majority of American citizens have "minuscule, near-zero, statistically non-significant impact upon public policy." Hypotheses and reasons that do not allow us in any way to shed light on the phenomenon and to seek even limited solutions.

We have identified in the speculative processes the most recent reason that pushes the search for a solution far from be achieved. On the other hand, we have also stated that the poison that threatens to infect the democratic capacities of modern countries seems to lie in a minority that escapes the obligations of solidarity and contribution to the common good. That minority of hyper-rich seems capable of influencing the power of democratic governments while the exact opposite is required: that is, governments that are not conditioned by the enormous wealth accumulated. But how to do?

The problem must be faced by a global government, a sort of 'reinforced' G20, which can decide a taxation level without possible escapes. For example, a consistent cut of this super-amount of accumulated wealth and its destination to common purposes that are useful for the whole community. We should finally take a step into utopia...

Note 8. In 1961, Robert Dicke noted that the age of the universe, as seen by living observers, cannot be random. Instead, biological factors constrain the universe to be more or less in a "golden age", neither too young nor too old. If the universe were one tenth as old as its present age, there would not have been sufficient time to build up appreciable levels of metallicity (levels of elements besides hydrogen and helium) especially carbon, by nucleosynthesis. Small rocky planets did not yet exist. If the universe were 10 times older than it actually is, most stars would be too old to remain on the main sequence and would have turned into white dwarfs, aside from the dimmest red dwarfs, and stable planetary systems would have already come to an end. Thus, Dicke explained the coincidence between large dimensionless numbers constructed from the constants of physics and the age of the universe, a coincidence that inspired Dirac's varying-G theory. Dicke later reasoned that the density of matter in the universe must be almost exactly the critical density needed to prevent the Big Crunch (the "Dicke coincidences" argument). The most recent measurements may suggest that the observed density of baryonic matter, and some theoretical predictions of the amount of dark matter account for about 30% of this critical density, with the rest contributed by a cosmological constant. Steven Weinberg gave an anthropic explanation for this fact: he noted that the cosmological constant has a remarkably low value, some 120 orders of magnitude smaller than the value particle physics predicts (this has been described as the "worst prediction in physics"). However, if the cosmological constant were only several orders of magnitude larger than its observed value, the universe would suffer catastrophic inflation, which would preclude the formation of stars, and hence life. The observed values of the dimensionless physical constants (such as the fine-structure constant) governing the four fundamental interactions are balanced as if fine-tuned to permit the formation of commonly found matter and subsequently the emergence of life. A slight increase in the strong interaction would bind the dineutron and the diproton and convert all hydrogen in the early universe to helium; likewise, an increase in the weak interaction also would convert all hydrogen to helium. Water, as well as sufficiently long-lived stable stars, both essential for the emergence of life as we know it, would not exist. More generally, small changes in the relative strengths of the four fundamental interactions can greatly affect the universe's age, structure, and capacity for life. Source: Anthropic 'coincidences' in Wikipedia.

Note 9. President Jimmy Carter nominated Paul Volcker to serve as chairman of the Board of Governors of the Federal Reserve System on July 25, 1979. He was confirmed by the U.S. Senate on August 2, 1979, and took office on August 6, 1979 (President Ronald Reagan re-nominated Volcker to a second term in 1983).

Inflation emerged as an economic and political challenge in the United States during the 1970s. The monetary policies of the Federal Reserve board, led by Volcker, were widely credited with curbing the

rate of inflation and expectations that inflation would continue. US inflation, which peaked at 14.8 percent in March 1980, fell below 3 percent by 1983. The Federal Reserve board led by Volcker raised the federal funds rate, which had averaged 11.2% in 1979, to a peak of 20% in June 1981. The prime rate rose to 21.5% in 1981 as well, which helped lead to the 1980-1982 recession, in which the national unemployment rate rose to over 10%. Volcker's Federal Reserve board elicited the strongest political attacks and most widespread protests in the history of the Federal Reserve (unlike any protests experienced since 1922), due to the effects of high interest rates on the construction, farming, and industrial sectors, culminating in indebted farmers driving their tractors onto C Street NW in Washington D.C. and blockading the Eccles Building. US monetary policy eased in 1982, helping lead to a resumption of economic growth.

Note 10. Talking about Central Banks and their purposes, the Federal Reserve System performs five functions to promote and ensure the effective operation of the US economy and, more generally, to serve the public interest:

- The Federal Reserve sets the US monetary policy to promote maximum employment and stable prices in the US economy.
- The Federal Reserve promotes the safety and soundness of individual financial institutions and monitors their impact on the financial system as a whole.
- The Federal Reserve monitors the risks of financial system and engages at home and abroad to help ensure that the system supports a healthy economy for US households, communities, and businesses.
- The Federal Reserve works to promote a safe, efficient, and accessible system for US dollar transactions.
- The Federal Reserve provides financial services to the US government.

Note 11. The action of governor was not immune from criticism, even severe. Augusto Graziani contested the idea that the roots of balance of payments' crisis of late 1963 and subsequent stagnation were to be found in the real sector, particularly in the behavior of the labor market (and in the labor unrest), arguing that the monetary policy was ineffective. Again Graziani, in contrast with Carli who hoped for the start of the income policy advocated by Ugo La Malfa, put forward the thesis that the exit from the crisis required a robust policy of public investments financed in deficit and concentrated in the South to absorb the unemployed workforce. This requirement was equivalent to a more permissive monetary policy, given that the statute of the Bank of Italy then provided for the obligation to purchase government bonds not subscribed by the market. Without renouncing his demand for an income policy and for the rigor in monetary creation, Graziani's thesis broke through Carli who incorporated it into the objectives of monetary policy. How is it possible to explain the logic of the brief and intense credit crunch implemented in 1963 without taking into account the nationalization of electricity and the social tensions violently exploded in the industrial cities, in the urban newly built suburbs, gigantic dormitories where people lived uprooted from their original land? How to judge the policy conducted in the early seventies, which some mistakenly considered "too lax", if we do not take into account those

parades of young people even as young as 14 that I myself observed every morning from the window of my studio in via Nazionale in the center of Rome? The public opinion was shocked by the mysterious episodes of the "strategy of tension". Should we ignore all this? The criticisms towards Carli, far from making him angry, always led him to reflect and, if he believed them to be well founded, he was ready to correct his actions. This was the case of Franco Modigliani and Giorgio La Malfa, who first of all convinced him to scientifically investigate the theoretical and practical reference scheme. Following the talks with Modigliani and with the authors of the model, Carli developed the belief that monetary policy should be used to stabilize the expectations of operators and to induce a virtuous behavior in the choices of workers' Unions and governments.

Note 12. The **Wall Street Crash** of 1929, also known as **Great Crash**, was a major American stock market crash that occurred in the autumn of 1929. It started in September and ended in late October, when the share prices on the New York Stock Exchange collapsed. It was the most devastating stock market crash in the history of the United States, when taking into consideration the full extent and duration of its aftermath. The Great Crash is mostly associated with October 24, 1929, called **Black Thursday**, the day of the largest sell-off of shares in U.S. history, and with October 29, 1929, called **Black Tuesday**, when investors traded some 16 million shares on the New York Stock Exchange in a single day. The crash, which followed the London Stock Exchange's crash of September, marked the beginning of the **Great Depression**.

After a one-day recovery on October 30, when the Dow Jones regained 28.40 points or 12.34% to close at 258.47, the market continued to fall, arriving to an interim bottom on November 13, 1929, with the Dow Jones closing at 198.60. Selling intensified in mid-October. The market then recovered for several months, starting on November 14, with the Dow Jones gaining 18.59 points to close at 217.28, and reaching a secondary closing peak (bear market rally) of 294.07 on April 17, 1930. The Dow Jones then embarked on another, much longer, steady slide from April 1930 to July 8, 1932, when it closed at 41.22, its lowest level in the 20th century, concluding an 89.2% loss for the index in less than three years.

Beginning on March 15, 1933, and continuing through the rest of the 1930s, the Dow Jones began to slowly regain the ground it had lost. The largest percentage increases of the Dow Jones occurred during the early and mid-1930s. In late 1937, there was a sharp dip in the stock market, but prices held well above the 1932 lows. The Dow Jones did not return to the peak closing of September 3, 1929, until November 23, 1954.

Note 13. The economies, in this phase, are dominated by the economic policy, not only monetary but mainly fiscal, which varies in its modalities from country to country. Governments launched massive plans to counter the epidemic and related problems, with a strong desire sometimes to go even "further" and recover – however, in ways somewhat outdated - the role of the State in the economy.

In particular, in the United States the resources injected by the two administrations - Trump and Biden - associated with excess savings that are now being spent by families, have associated to a classic supply

inflation, blocked by the interruptions in supply chains, a demand inflation; this happened less in Euro-land where the recovery plans focused on some strategic sectors. The divergence between monetary policies is evident in the USA and GB. The United States is now expecting a normalization of rates by 2024, and this is a second attempt since the 2008 crisis. Inflation is wide-ranging, involving all sectors, and the wage increases, exacerbated by supply shortages, threaten to overload the productivity, although it is already rising.

The situation in Great Britain is not very different, however the Bank of England already started its tightening: on Thursday 16th November the Bank rate went from 0.1% to 0.25%. The BoE's Monetary Policy Committee believes that inflation expectations are anchored, but considers that the situation deserves anyway a close attention.

For the European Central Bank, the forward guidance remains -unlike what happened in the United States- an important element of its strategy. The tightening will begin when inflation will definitely tend to 2%: there aren't yet the conditions, therefore, to start the tightening.

Note 14. It is about the "Copenhagen Agreement" of 2009: a 12-point document, without any binding effect, whose purpose is to limit the increase in the world average temperature by 2 degrees, but which eliminates any reference to 50% cut to be achieved by 2050. In addition, the industrialized countries undertake to allocate 30 billion dollars for the first three years to finance actions to contain the climate change in developing countries, and another 100 billion to be allocated to developing countries (DCs) and poorest countries, to be used in the conversion to the clean energy.

The 26th United Nations Climate Change Conference (COP26), which concluded in Glasgow on November 13, was defined as "a huge step forward" in the fight against climate change. Compared to the previous ones, indeed, with the latest COP26 the picture is changed a lot. At the time of the 2015 Paris Conference, the "Climate action tracker" calculated that with the policies implemented at the time, the increase in temperature would reach 3.6 degrees. The wave of enthusiasm aroused by that "historic" summit was soon exhausted, also because the following year Donald Trump was elected president of the United States and he suddenly announced the US abandon of the Agreement. In the four inconclusive annual summits that followed after Paris, the distance between the parties had led many analysts to doubt about the real possibility of a globally coordinated approach in order to limit the climate change. In Glasgow a significant change of pace was evident. What really made the difference, in addition to the development of an expanding global movement concerned about the climate change and in addition also to the removal of Trump from the US presidency, was above all the enormous impression created by the extreme climatic events of the last two years: this time the delegates knew that when the conclusions of the summit were made known, the eyes of the whole world would literally be on them. Although at least twenty years late, the climate emergency has finally become one of the global priorities.

Note 15. In line with the step-by-step reduction in asset purchases decided in December 2021 and to ensure that the monetary policy stance remains consistent with inflation stabilizing at the Governing

Council's target over the medium term, monthly net purchases under the APP will amount to €40 billion in the second quarter of 2022 and €30 billion in the third quarter. From October onwards, the Governing Council will maintain net asset purchases under the APP at a monthly pace of €20 billion for as long as necessary to reinforce the accommodative impact of its policy rates. The Governing Council expects net purchases to end shortly before it starts raising the key ECB interest rates. The Governing Council also intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when it starts raising the key ECB interest rates and, in any case, for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

The interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 0.00%, 0.25% and -0.50% respectively.

In support of its symmetric 2% inflation target and in line with its monetary policy strategy, the Governing Council expects the key ECB interest rates to remain at their present or lower levels until it sees inflation reaching 2% well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at 2% over the medium term. This may also imply a transitory period in which inflation is moderately above target. *ECB - Monetary policy decisions February 3*, 2022

Note 16. The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent. With inflation well above 2 percent and a strong labor market, the Committee expects it will soon be appropriate to raise the target range for the federal funds rate. The Committee decided to continue to reduce the monthly pace of its net asset purchases, bringing them to an end in early March. Beginning in February, the Committee will increase its holdings of Treasury securities by at least \$20 billion per month and of agency mortgage-backed securities by at least \$10 billion per month. The Federal Reserve's ongoing purchases and holdings of securities will continue to foster smooth market functioning and accommodative financial conditions, thereby supporting the flow of credit to households and businesses.

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on public health, labor market conditions, Inflation pressures and inflation expectations, and financial and international developments. Federal Reserve Issues FOMC statement—January 26, 2022

Note 17. The "invisible hand" is a metaphor created by the economist Adam Smith to represent the role of Providence (somewhat immanent), by virtue of which, within the free market, the pursuit of

individual interests, which is nevertheless favorable also to the interests of the whole society, in the end brings the whole economic system to the so-called general economic balance.

Subsequently, according also to Léon Walras and Vilfredo Pareto, it was usually understood as a metaphor for the economic mechanisms that regulate the market economy in such a way as to ensure that the behavior of individual consumers and entrepreneurs, aimed at the pursuit of maximum individual satisfaction, finally leads to the well-being of whole society, even through the satisfaction of purely personal desires.