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THE IMPACT OF CORONAVIRUS AND THE POLICIES NEEDED

ABSTRACT

The pandemic will have many consequences, all the more important and heavier as it will prolong and it is sad to note that its length depends also on the tendency of large pharmaceutical firms to privatize the results of their research, not sharing them, in order to safeguard their patents. Apart from suspension – or some form of attenuation – of patents on these essential drugs, a policy aiming at an increased cooperation in the research of antidotes could be offered by a common pool of resources between the main countries.

The consequences of the pandemic will vary from those of an economic nature, on the levels and distribution of income between people and countries, to those of a social and political nature. In addition, one should note that the pandemic will influence the set-up of economic and political international cooperation, confirming or aggravating the protectionist tendency of the recent years.

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RIASSUNTO

L'impatto della crisi e la soluzione

La pandemia avrà conseguenze molteplici, tanto più importanti e gravi quanto più essa si protrarrà e duole notare che la sua durata dipende dalla tendenza delle grandi case farmaceutiche a non mettere in comune i risultati delle proprie ricerche, per salvaguardare i diritti di brevetto. A parte la sospensione – o qualche attenuazione – dei diritti di brevetto, una possibile misura tesa ad aumentare la cooperazione nella ricerca degli antidoti potrebbe essere offerta dalla costituzione di un pool comune di risorse fra i vari paesi.

Le conseguenze saranno di varia natura, di carattere non soltanto economico, sui livelli e la distribuzione del reddito fra persone e paesi, ma anche sociale e politico. In aggiunta, va notato

che la pandemia influirà sull'assetto della cooperazione economica e politica internazionale, confermando o accentuando le tendenze protezionistiche manifestatesi negli ultimi anni.

1. THE IMPACT UP TO NOW

In the first months of 2020 the effects of the pandemic have hit the global economy. Production, aggregate demand and supply of all the economies, employment, international trade and investment, stock market prices, inflation have dropped, while the interest rate of most indebted countries such as Italy and the spread with respect to German Bund has soared. As to inflation, one of the reasons why it has fallen has to do with the fall in the oil price. In the future, however, it may rise if the negative effects on supply prevail over those on demand. In that event we would have a case of stagflation, i.e. stagnation of production together with inflation.

In Italy in the first quarter of 2020 industrial production is estimated to have dropped by around 6%, with a drop of 15% in March. A similar reduction applies to almost the whole tertiary sector (the extreme case being that of hotel and tourism and the exception being represented by the agri-food industry). The contraction of production and employment will continue in the second quarter and could be even higher for employment, as some contracts will not be renewed. Income and employment levels should somewhat resume in the second half of the year and a recovery is expected in 2021.

In the Eurozone GDP has dropped by 3.2% until now and the drop is expected to be of the order of 5-12% for the whole year, according to ECB estimates. The International Monetary Fund forecasts1 a fall of the Eurozone GDP of 7.5% in 2020, practically the highest drop among all areas. The fall for the United States should be lower. For Italy the highest fall is expected among the Eurozone countries. According to these estimates (IMF, 2020), all areas should experience a recovery in 2021. However, in some cases the rates of recovery will not be able to bring GDP back to the 2019 level. This is the case of all advanced economies (see Table 1).

If Europe does not act timely, in a massive and coordinated way, in 2020 the contraction could double that of 2009. This crisis is different with respect to the financial crisis from one main

[1] Estimates date back to April 2020 and will certainly be revised, in some cases downward, in next months.

respect: there was then a financial and global demand collapse in some cases only, up to the Greek disaster. Today, the pandemic hits not only global demand but also supply.

In March in Italy instruments such as the Cassa integrazione guadagni (Extraordinary Redundancy Fund) should have softened the impact of the health emergency on the number of employed workers. The government has decided significant expansionary policies in favour of the health system, of the families and the firms hit by the crisis, by strengthening the system of social safety nets, stopping tax payments, declaring a moratorium in repayments of bank loans and granting public guarantees on loans to firms.

In the Euroarea extraordinary monetary policies have been implemented: the ECB has enacted both a new program of purchases of government securities for the pandemic emergency and a wide range of more expansionary refinancing operations in order to reduce the cost of bank provision and sustain firm liquidity. Other measures have been decided by the European Commission, which has suspended the EMS and activated the general safeguard clause included in the Stability and Growth Pact, which allows temporary deviations from the medium-term target or from the path towards it. In addition, European institutions have prepared a substantial enlargement of the instruments available to counter the effects of the pandemic.

The speed of recovery will depend both on the length of the pandemic and the effectiveness of the economic policies that will be implemented. All the current scenarios on the trend of Italian GDP embody a strong negative trend in the first half of the year, followed by a recovery in the second half and a strong recovery in 2021. The range of estimates by analysts is however very wide. Recovery will depend also on the developments of international trade and financial markets, the effects on the operation of some service sectors, and the consequences of all this on consumer confidence. The effectiveness and timeliness of policy measures being implemented both in Italy and Europe will be crucial.

As said, in addition to the economic policies that are being or will be implemented, the economic effects will depend in an essential way on the duration of the pandemic. In the following section we briefly deal with that. Later we will clarify the nature of the shock that has hit the economic system (Section 3). We then deal with supply policies (Section 4), demand policies and the solutions at the domestic (Section 5), the EU (Section 6) and the world level (Section 7) to face extraordinary expenditures. Section 8 concludes.

TABLE 1 - *GDP Changes Recorded or Foreseen for Countries and Regions, 2019-2021*

	2019	2020	2021
World Output	**2.9**	**-3.0**	**5.8**
Advanced Economies	**1.7**	**-6.1**	**4.5**
United States	2.3	-5.9	4.7
Euro Area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other Advanced Economies	1.7	-4.6	4.5
Emerging Markets and Developing Economies	**3.7**	**-1.0**	**6.6**
Emerging and Developing Asia	5.5	1.0	8.5
China	6.1	1.2	9.2
India	4.2	1.9	7.4
ASEAN-5	4.8	-0.6	7.8
Emerging and Developing Europe	2.1	-5.2	4.2
Russia	1.3	-5.5	3.5
Latin America and the Caribbean	0.1	-5.2	3.4
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
Middle East and Central Asia	1.2	-2.8	4.0
Saudi Arabia	0.3	-2.3	2.9
Sub-Saharan Africa	3.1	-1.6	4.1
Nigeria	2.2	-3.4	2.4
South Africa	0.2	-5.8	4.0
Low-Income Developing Countries	5.1	0.4	5.6

Source: IMF (2020).

2. FORECASTS ON THE LENGTH AND INTENSITY OF THE IMPACT

As is well known, the epidemic first appeared in China at the end of December 2019[2], spreading not only in neighboring countries, but also Europe, first in Italy and then in the whole Europe, notably Spain and the United Kingdom, less in Germany and Scandinavian countries. Outside Europe, the disease has in more recent months violently exploded in the United States and Brazil.

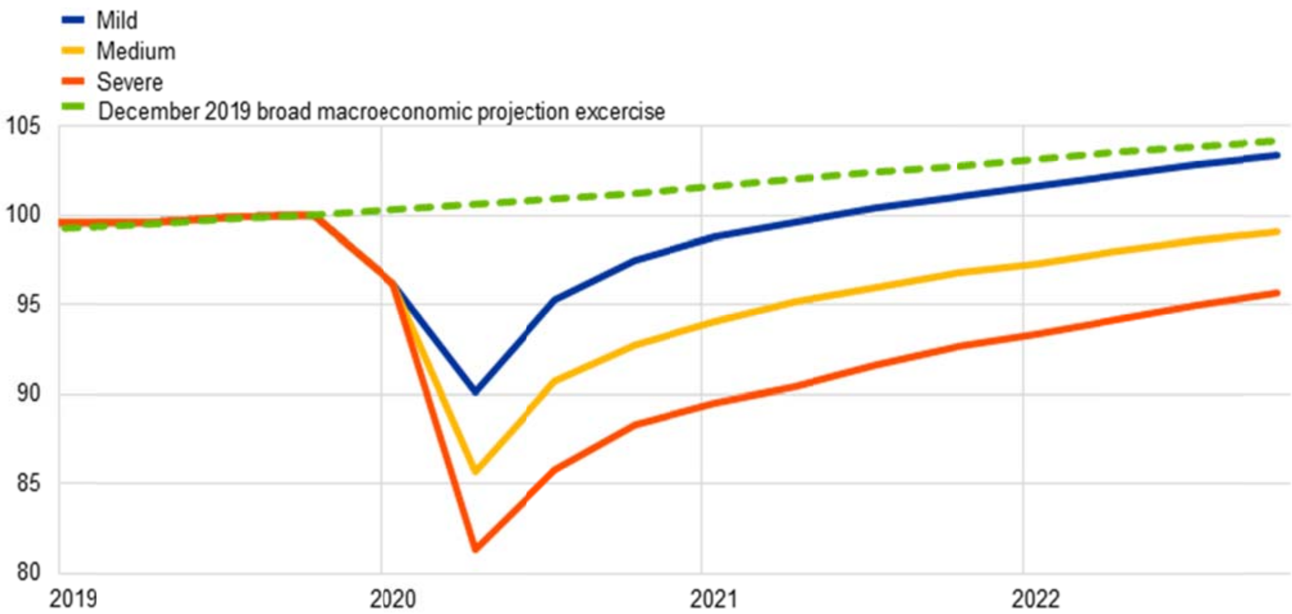
Forecasts about the duration are absolutely uncertain, also because it will be necessary to wait for the outcomes of the softening of restrictions due to people behavior. According to some United States epidemiologists and immunologists, it could even last various years. Bursts of contagion could take place in next months. In order to avoid them or reduce their impact, it will be necessary to prolong prescribed distances and prohibition of contacts between people until 2022. Even later there could be a resumption of contagion (Kissler *et al.,* 2020). Obviously, all that can hold if no new effective antivirus drugs are introduced. This would certainly be delayed by the current pharmaceutical rules, based on drug patents, which imply privatising and locking knowledge, making it difficult to share knowledge developed by each research center, which could instead considerably reduce the time required by research (Mazzucato and Torreele, 202; Stiglitz *et al.*, 2020).

Figure 1 shows the impact of the epidemic in the Euroarea on the basis of three scenarios tied mainly to the intensity and length of contagion. In the most severe scenario and in the intermediate one, the drop of GDP can be also of 12%, in the whole year, with a return to the 2019 value in years after 2022.

[2] An accurate reconstruction – negating, among others, President Trump's repeated argument – of the report of information about the new disease, rapidly communicated to the World Health Organisation is offered by Roach and Shan (2020). However, according to the Associated Press China has not revealed the depth of the epidemic for a long time.

FIGURE 1 - *Euro Area Real GDP under the Mild, Medium and Severe Scenarios*

(index, 2019 Q4 = 100)



Source: Lane (2020), ECB calculations.
Note: For details on the scenarios, see Battistini and Stoevsky (2020).

3. THE DOUBLE NATURE OF THE SHOCK: BOTH A SUPPLY AND DEMAND SHOCK

The immediate effect on production of the epidemic is to reduce availability of one of the factors of production, labor. Of a similar nature are the rules introduced by public authorities imposing restrictions or prohibitions, e.g., of people movements between various locations, lockdown of trade and plant activities, or similar. While the direct effect of the epidemic is reduction of one of the factors of production, the direct effect of restrictions widens to all the activities, except those that are essential to life – such as supply of food and other essential goods, like electricity and water.

The next effect is a demand shock. In fact, current income of the people hit by the pandemic is cut and in realistic conditions it is impossible to discount availability of sufficient incomes in the future[3]. This implies a more or less generalized fall of demand, that appears clearly when some activities resume.

4. THE POLICIES NEEDED: SUPPLY POLICIES

These policies should be implemented both immediately and in the longer term. The former should tend, on the one hand, to avoid contagion (which – as said – implies restrictions to supply due to the prohibition of performing some activities or, in any case, to the limitations imposed on the methods of production) and, on the other, to raise the production of certain goods necessary to cure and counter the epidemics (such as hygienic masks, antiseptics, etc., as well as fixed infrastructures necessary to the cure) or its effects (such as the production of foodstuffs) for people hit by the disease. These might require public intervention or granting incentives.

Policies to be implemented in the longer run include, first, refusal of market fundamentalism, as the market has shown a number of rigidities, not only in price movements, but also in reallocation of resources from the sectors where prices lower to those where they rise. An example of this is shortage of hygienic masks. In this way the market has not performed the first role required from it (Ciocca, 2020). Therefore, it will always be necessary for the state to intervene in order to correct the market, through subsidies or direct intervention. Obviously, together with market failures there are cases of government failures, which also require proper correction.

The intervention of public action will tend to act on the structure of production, in particular to increase the role of green economy, regulation of the environment, the traffic and many other activities. To this end measures are required to promote smart working and telework, which, on turn, require further intervention tending to widen use of electronic instruments.

A field of specific relevance is reform of the set of rules to regulate the economy, in particular those of company, insolvency, procedural and antitrust law. This reform should tend to induce firms to pursue profit through innovation, technical progress, increase of productivity. Competition between firms should be imposed based on prices and innovation. A specific aspect

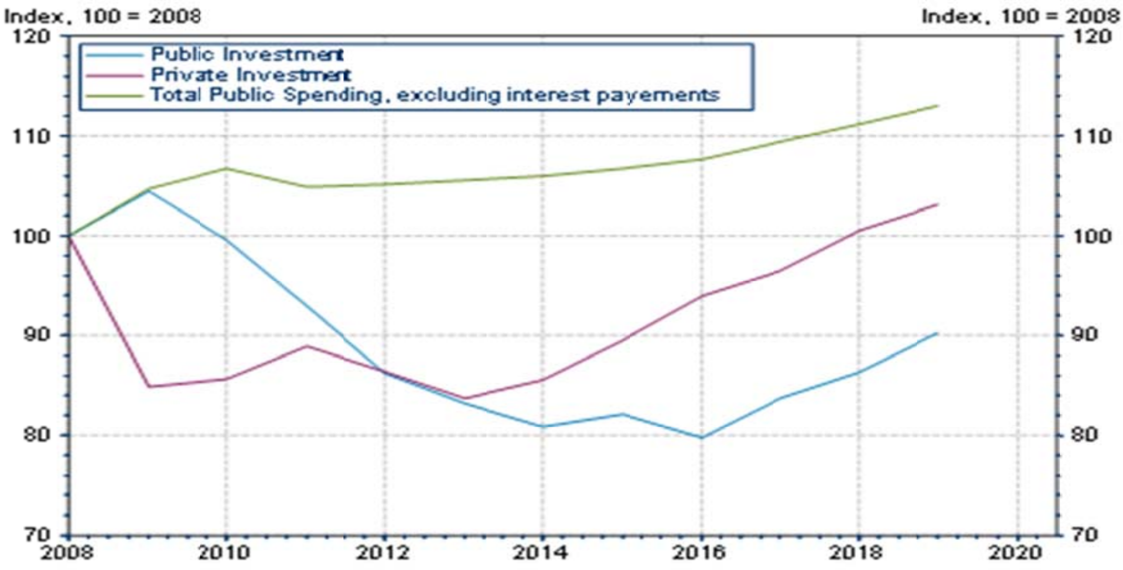
[3] This – i.e., in technical terms, existence of incomplete markets – is underlined by Guerrieri *et al.* (2020).

of the reform should refer to the relation between the public administration and firms, in particular for contracts and management of infrastructures (Ciocca, 2020).

5. POLICIES NEEDED: DEMAND POLICIES

The order of magnitude depends on that of the GDP fall. If in 2020 this were of 10%, e.g., in Italy, the demand impulse should be of at least 150 billion euros.
This impulse can be ensured by both monetary policy – by reducing to negative levels interest rates (Rogoff, 2020) and, more importantly, fiscal policy. With specific reference to the latter, public expenditures are absolutely essential. For this there are problems both of size and composition. From the former point of view, in order to mitigate or avoid a GDP fall public investment is required, also to overcome the drastic cuts implemented during the Great Recession (see Figure 2). In particular, investments having a high

FIGURE 2 - *Public and Private Investment, Total Public Spending, EU, 2008-2020*

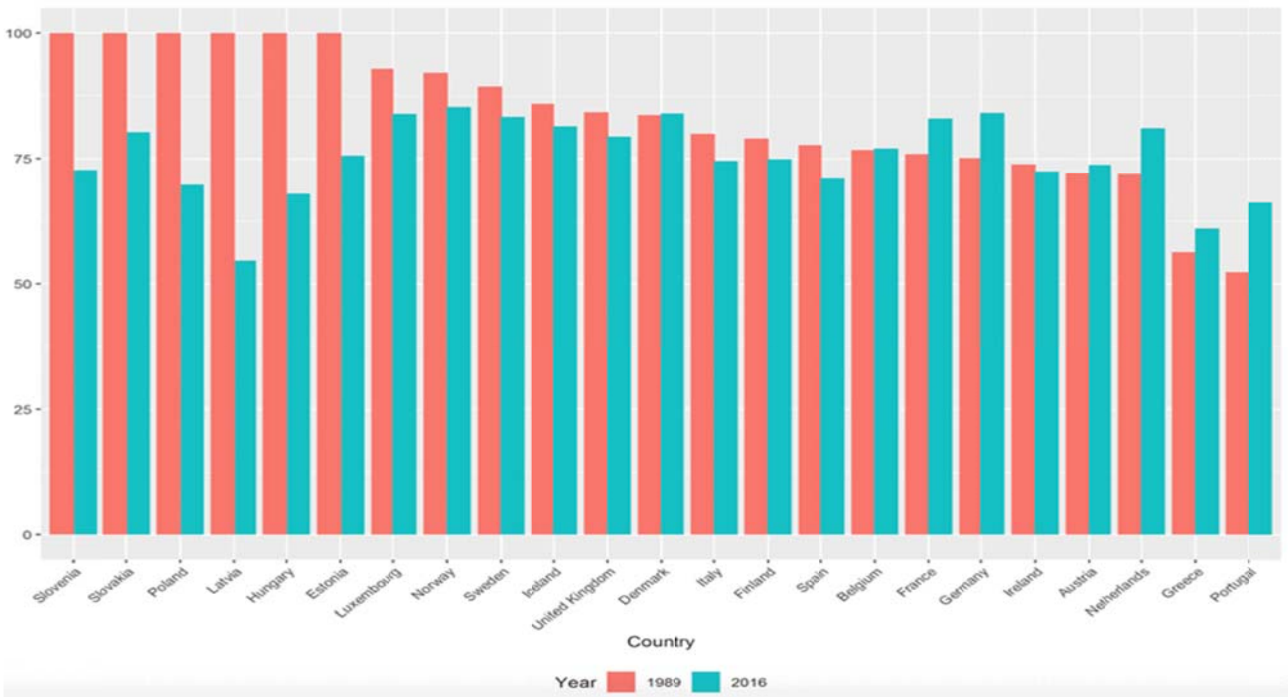


Source: Badré, Lemoine (2020).

multiplier should be favoured. They should be raised by at least 1-2 p.p., also exploiting the desirable golden rule of public finance. From the second viewpoint, the rise of investment expenditures should be implemented mostly in the underdeveloped regions, such as the South of Italy.

As to the other items of public expenditures, the role of the welfare state should be increased in order to mitigate inequalities and economic insecurity, by granting subsidies to families and firms in need, extension of the redundancy funds and also raising health expenditures (in particular, by raising both in the short and the long run expenditures for public health that were cut in many EU countries, as shown by Figure 3), education and research expenditures, security of homeland and environment, as well as other material and immaterial infrastructures. In the longer run, the efficiency of current public expenditures should be increased, by eliminating a number of wastes.

FIGURE 3 - *Share of Public Health Expenditure in Total Health Expenditure, 1989 and 2016*



Source: Popic (2020).

In claiming the necessity of larger public expenditures, one should also suggest the solutions for their coverage, both in each country and at the EU level.

Obviously, in the former case, a country can run a higher deficit and, then, resort to a higher public debt. This solution can imply problems of solvability of debt, which depends, inter alia, on its initial level and the size of current deficit, the latter being related to the length of the epidemic. Alternatively, a country plagued by evasion and elusion should try to reduce these, considering that they can also derive from resort of people and firms to tax havens and countries adopting tax rulings, such as Luxembourg, Ireland, the Netherlands, Belgium, Malta and Cyprus. According to some estimates, the loss of taxes could be of the order of 5.5 billion euros for Italy.

An indication of the amount of the tax revenues due to distraction of profits to the benefit of the various tax havens is offered by Torslov *et al*. (2020) (see Table 2).

TABLE 2 - *Profits and Tax Revenues Lost for Italy ($, Millions) from Tax Havens*

	Profits lost	Tax revenue lost
All havens	26.476	6.354
EU havens	23.195	5.567
Belgium	2.129	511
Cyprus	14	3
Ireland	6.181	1.484
Luxembourg	11.170	2.681
Malta	191	46
Netherlands	3.509	842
Non-EU tax havens	3.281	787
Switzerland	2.250	540
Others[1]	1.031	247

[1] Bermuda, Caribbean, Puerto Rico, Hong Kong, Singapore and others.

Source: Torslov *et al.* (2020).

The problem of the solution at a EU level requires a longer discussion, beginning with an initial digression on the reactions of the various countries to the epidemic. We deal with that in the next section.

6. THE SOLUTIONS AT A EUROPEAN LEVEL

Coronavirus has led Europe to a crossroads. The different EU countries have acted in a random order in their direct action to counter the pandemic and in the adoption of policies to at least partially overcome it as well as in fiscal policies in order to counter its economic effects. As to policies to counter the pandemic, each country has introduced specific and staggered measures (e.g., by unilaterally suspending free movements of people, introducing prohibition to export some products such as material and machinery useful for medical care). This has depended partly on the different timing of contagion and partly on the habit to self-service now well-established in Europe.

As to counteracting policies, the order of magnitude of the fiscal policies adopted ranges between around 1% of GDP by Mediterranean countries to 2% by France and Denmark up to 8% by Germany. These levels depend partly on the state of the public budgets and the availability of resources of the various countries in public health[4]. Certainly, they do not depend on the extension of the epidemic and, instead, are to be inversely related to it.

As to common intervention, monetary and credit policies have first been implemented, laying down a new program of forward guidance and quantitative easing, in particular by buying the sovereign debt issued by Euroarea countries (Pandemic Emergency Purchase Programme, PEPP, a programme amounting to 750 billion euros). This operation has not been tied to an allocation of interventions between the various countries proportional to their shares of the capital of the ECB, in order to counter the action of speculation on the interest spreads between the different countries. The banking systems of the various countries have also been refinanced, which has allowed, on the one side, banks to keep public bonds in their portfolios and, on the other, bank financing of the private sector, which has been eased by the state guarantee.

The policies implemented by the ECB do not seem and should not be influenced by the judgement of the German Constitutional Court of May 5th, 2020, whereby – in opposition to a previous ruling of the European Court of Justice – the expansionary policies implemented in 2015 have been criticized and the Bundesbank has been invited not to implement such interventions. The judgement has caused a great deal of embarrassment, but does not seem to

[4] One can debate the effectiveness of resources that have already been devoted to health, which in Italy were 8.8% of GDP (or 6.5%, if one considers only public provisions), a value between that of the United Kingdom (7.5%), on the one side, and France (9.3%) and Germany (9.5%), on the other.

influence the strategy of the ECB, as derives from the reaction of its main bodies. Monetary expansion is most likely to be prolonged in the future, keeping the inflation forecasts up to 2029 at a level less than 1%, well below the boundary established in the medium run by the ECB (Clayes, 2020).

Apart from monetary interventions, credit measures at the EU level have been implemented. As to the European Stability Mechanism (ESM), the details of the financing rules have been clarified only in early May. Conditionality, which could have reduced recourse to the Mechanism by highly indebted countries, such as Italy, relates only to the object of expenditures (that should be devoted to health and medical care). Loans last for a decade and an interest rate of .1% applies. If one considers that the rate of interest for Italian ten-years bonds was 1.83% in early May, use of the Mechanism becomes cheaper by 1.73% yearly. Drawing up to 36 billion euros, a lower cost of up to 600 million euros is possible each year (Accademia dei Lincei, 2020). However, one should consider that access to the Mechanism by a country could imply a reduction in its credibility.

The EU Commission can authorize state aid for: 1) granting of direct subsidies and tax cuts that aim at facing urgent liquidity needs up to 800,000 euros per firm; 2) state guarantees on bank loans; 3) public low-interest loans; 4) aid to banks for loans to firms; 5) short-term credit for exports; 6) support for research and innovation against Coronavirus; 7) deferral or suspension of taxes; 8) support to the income of employees.

In addition, the European Investment Bank (EIB) has created guaranty funds for bank loans to firms that can sustain total loans for 240 billion euros. The sources of funds should be EU member countries, according to their shares in the capital of the Bank. Moreover, a number of other funds have been set up, such as Sure and a Recovery Fund. Sure is a fund that could raise up to 100 billion euros on the market through a system of guarantees by member countries, in order to finance them. The Recovery Fund should tend to raise up to 1,000 billion euros on the market; it would grant loans to very long terms from the European 2021-2027 budget, new direct contributions and higher guarantees from member countries. The European Commission should then fund the various countries, according to their needs. Mediterranean countries, namely Italy and Spain, supported by France, are in favor of this instrument, which, differently from others would offer resources that would partly be very long term loans paying an interest rate lower than national bonds and, in addition, non-repayable contributions.

Finally, starting in 2021 there will be a rise in the EU budget, which has been reduced to a flicker (to the level of 1% of the EU GDP) in the last years, due to a number of cuts. However,

'the enlargement of the EU budget refers to next years. The possibility of a sufficient expansion requires ... in the immediate issuing European bonds, whereas, realistically, the increase of EU own revenues would take place only after the economy has come back to a growth path. Issuing common bonds is opposed by some countries for different reasons, none of which is convincing' (Accademia dei Lincei, 2020)[5.]

As to expansionary fiscal policies, as said, first the Stability and Growth Pact has been suspended, which allows each country to implement fiscal policies of a substantial amount implying a high budget deficit. The same has been done also with state aid to firms from mid-March[6].

It would also be desirable to transform part of national public debt into European bonds (such as Eurobonds or similar instruments), in order to lower the ratio between public debt and GDP, particularly high – or expected to be so – in some countries like Italy. The benefits from issuing such forms of mutualized debt are numerous. Among them one has to recall independence of market rating for that debt from the rating of the sovereign debt of the most indebted countries (which, in turn, lowers because of the reduction of their exposure to the financial market) and the possibility that banks use Eurobonds to diversify their portfolios, which are often burdened with domestic securities.

A further initiative could concern enhanced cooperation, in order to implement projects of European investment financed by bonds and aiming at specific fields (e.g., bio-medical research, transport infrastructures, information technology, creation of a tax level-playing field). Finally, it is necessary to devise a European industrial policy tending not only to indicate the priority sectors to invest in, but also favoring aggregations between European firms, e.g., in the energy, telecommunication, bio-genetics industries, strengthening European research platforms useful

[5] The same source suggests in particular adoption of a tax on financial transactions and various environment taxes.
[6] Media have tied the apparent generosity of the concession – which in the past was negated in particular by Germany – to the fact that precisely German firms have benefitted from about half of the aid passed by the European Commission.

for innovative medium-sized firms and start-ups, following the model of CERN, ESA and EMBO. Various Trans-European infrastructures could be enhanced (Accademia dei Lincei, 2020).

7. Problems and solutions at a world level

If at a country and European level the problems deriving from the pandemic are significant, at a world level they are dramatic.

These are: imbalances between demand and supply of goods; economic, social and political consequences deriving from them; tendency to de-globalization. Various issues then arise on the directions to be given in international economic fora and the related policies.

One has first to note the likely fall in the world GDP in 2020, as shown by the table already shown. Apart from this, Coronavirus has implied a rise in food demand and a fall in that of durable goods (such as cars). If in normal times, this sudden change in the composition of demand could be faced by a change in relative prices, during the pandemic this readjustment risks being much more difficult. In fact, problems of availability of foodstuffs have arisen not only for the rise in their demand, but also due to the embargo introduced by the countries that produce raw materials (Russia and Kazakhstan for wheat and India and Vietnam for rice) and, at the same time, for hoarding of the same goods by other countries (like Egypt and Philippines). This has implied a rise in the prices of these raw materials (e.g., by 40% for wheat) that could drastically hit around 110 countries – of which 50 LDCs hosting 3/5 of the world population (Reinhart and Subbaraman, 2020). In addition, LDCs, which already have problems of scarce growth, would further suffer from the pandemic because of the fall in the demand for their goods – as some of them based their growth on exports. Finally, they will suffer from reduction in both remittances coming from their citizens that have migrated abroad and capital inflows.

Obviously, the impact of rising prices for essential goods hits the various earners in different ways, as the share of income and wealth of the poorer has further worsened. Availability of foodstuffs and worsening of distribution could cause social unrest and, anyway, influence the political set-up of many countries.

From the point of view of the world economy, a process of de-globalization could arise, with various effects, such as isolation of many countries and re-nationalization of the value-chains that are now spread over the world. The risk then arises of further trade wars, in addition to those already arisen in recent years.

An alternative superior from the viewpoint of collaboration between countries is search for a more sensible model of globalization focused on areas of real reciprocal benefit, pointing in particular to cooperation in the field of public health, environment, production and distribution of essential goods, removal of unfair competition, granting emergency loans to many LDCs, in addition to a temporary suspension of refunds of their previous debts.

On the whole, the future of the world economy depends not only on the effects of the virus, but also on the answers of public and private agents to it.
In particular, the future of globalization largely depends on the policies that the United States and China will implement. The European Union as a unit will have little weight, since it is still struggling with its internal issues, which prevent it to decide on the progress towards a greater integration of its economic policies. Therefore, the answers of single leading European countries have played the main role. Two roads mainly open for globalization. The first one could confirm the tendency of the recent years towards certain forms of de-globalization. Anyway, an alternative road aims at emphasizing the fields – such as health and environment protection and limitations to tax havens – in which globalization is certainly useful. Cooperation in these areas will also favor international trade and investment.

The pandemic has done nothing but to emphasize pre-existing problems of the various countries and the policies attitudes of the leading countries. LDCs should look for different growth models, less focused on the growth of exports (Rodrik, 2020).

8. Conclusions

The pandemic will have many consequences, all the more important and heavier as it will prolong and it is sad to note that its length depends also on the tendency of large pharmaceutical firms to privatize the results of their research, not sharing them, in order to safeguard their patents. Apart from suspension – or some form of attenuation – of patents on these essential drugs, a policy aiming at an increased cooperation in the research of antidotes could be offered by a common pool of resources between the main countries.

The consequences of the pandemic will vary from those of an economic nature, on the levels and distribution of income between people and countries, to those of a social and political nature. To this end it is worth recalling one of the conclusions of the study already cited of the Italian Accademia dei Lincei according to which

‘technical changes in telecommunication and information, which certainly contribute to growth, seem to supply a new instrument of social control, which must be regulated in the best way in order to help to fight against the epidemic *without imposing risks to democracy and the state of law*’ (Accademia dei Lincei, 2020: 4).

In addition, one should note that the pandemic will influence the set-up of economic and political international cooperation, confirming or aggravating the protectionist tendency of the recent years.

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