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THE GREAT LOCKDOWN:

THE IMPACT OF THE CRISIS ON THE STOCK MARKETS

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Premise

The spread of the pandemic globally has been asynchronous and has resulted, within the economies involved, in an exogenous and symmetrical shock that has hit the demand side and the supply side simultaneously.

Compared to previous crises of an endogenous nature to the economic and financial system, it is complex to predict the developments and the intensity of the shock due to the indeterminacy of the factors relating to the dynamics of the pandemic.

However, the transmission mechanisms of the crisis are clear, within which the financial markets and the banking system, although not the epicenter, play an important role by being able to amplify the effects, just as it is clear that overall the extent and he intensity of the crisis will depend on the starting conditions and on the policy measures in support of economic activity.

Italy, like the euro area, was hit at a time when the economy was already experiencing signs of a slowdown; listed non-financial companies already showed a more marked deceleration in turnover growth rates and profitability than that of their European competitors, distinguishing themselves at the same time for their higher indebtedness; the indices of the domestic stock market in most cases remained at levels chronically lower than those prior to the global crisis of 2008.

On other fronts, the starting conditions did not raise particular concerns. Public finances showed a controlled budget deficit and relaxed conditions prevailed in the primary and secondary sovereign debt markets; the domestic banking system enjoyed greater solidity thanks to the capitalization operations and the improvement in credit quality recorded in recent years; families, in the face of a growing preference for liquidity, remained characterized by a low level of debt and a high stock of financial wealth in relation to disposable income.

With the onset of the pandemic and related containment measures, the collapse of activity and demand together with the decline in employment and disposable income have amplified the pre-existing vulnerabilities and fears relating to the sustainability of public and private debt.

The Italian and international financial markets promptly reflected the dynamics underway, recording a sharp decline in share prices in March and an increase in yields on public and private bonds.

Introduction

Between the end of 2019 and the beginning of 2020, an infection generated by a virus of the SARS-Covid family, the so-called Covid-19, which broke out in Wuhan, China, rapidly spread globally.

The virus immediately appeared very contagious, among other things due to the fact that human-to-human transmission can also occur through contacts with asymptomatic individuals. In most cases, people who have contracted the infection recover thanks to protocols and therapies already in use, without the need for special treatments; in severe cases, however, the disease can degenerate also through the aggravation of previous diseases (mainly pulmonary in nature) up to death.

According to the evidence collected so far, the infection from Covid-19 can be contained mainly through social distancing measures, which the national governments of the countries concerned have had to adopt pending the development of a specific treatment and an effective vaccine[1].

The so-called lockdown has provided for restrictions on the mobility of individuals and has led to the closure of schools, universities and public buildings, the stop of commercial activities and non-essential services, the downsizing or reorganization of essential production activities aimed at guaranteeing the health of workers , the quotation of import and export activities and the elimination of tourism activities.

The economic and financial consequences deriving from the containment of the pandemic immediately seemed very severe.

The forecasts on the growth rates of global GDP and individual countries for the current year have been revised downwards on several occasions. In the first quarter of the year, the indicators relating to the performance of the financial markets highlighted tensions of proportions equal to or greater than those experienced during the 2008 crisis.
There are fears of a sharp deterioration in public accounts, an increase in the insolvency rate of businesses, a significant deterioration in the economic and financial conditions of households[2].

Possible repercussions can be seen on the quality of banks' assets and their ability to provide credit at a time when the primary capital markets are showing signs of a slowdown in activity. Faced with these scenarios, the monetary and fiscal authorities have implemented measures to combat the crisis that are unprecedented in recent years.

[1] Banca d’Italia (2020b), Financial Stability Report n. 1/2020, https://www.bancaditalia.it/media/agenda/2020-04-30_financial-stability-report-no-1-2020/

[2] Baker I., N. Bloom, S. Davis e S. Terry (2020), Covid-induced economic uncertainty, https://www.nber.org/papers/w26983.pdf

The characteristics of the Covid-19 crisis

The health crisis

The Covid-19 infection, which occurred in China between the end of 2019 and the beginning of 2020, took on the proportions of a pandemic destined to generate significant economic and social repercussions globally in a few weeks[1].
As of 30 June 2020, the pandemic reached over 200 countries, involved about 11 million people (confirmed cases) and caused over 500,000 victims, thus resulting in a lethality rate (i.e. a share of deaths among the infected population) on average equal to about 5%.
Although, in fact, the symptoms of the infection are generally mild, especially in children and young adults, for a significant proportion of the infected (20% according to the WHO) the course is more serious due to respiratory insufficiencies that require hospitalization.

For Covid-19, neither vaccines nor drugs are currently available, among those used so far, whose therapeutic efficacy is robustly proven.

The Covid-19 pandemic is part of the list of serious respiratory diseases that have appeared in recent years.
The virus underlying the pandemic has been named SARS-CoV-2 (CoronaVirus-2) by the International Committee on Taxonomy of Viruses (ICTV). The virus causes the disease called Covid-19, where 'Co' indicates corona, 'vi' means virus, 'd' disease while '19' indicates the year in which it first appeared. Covid-19 was declared a global pandemic by the World Health Organization (WHO) on 11 March 2020.

The Covid-19 crisis

Impacts and risks for the Italian financial system in a comparative perspective
The spread of Covid-19 infection globally has brought to light the frailties of many national health systems[2].

Globally, the lockdown was applied with different timing and intensity. In the euro area, Italy, hit before the others by the pandemic, has adopted more stringent measures than those introduced in Spain and Germany and has maintained them in their greatest intensity for a relatively longer period.

[1] Fonte: European Centre for Disease Prevention and Control
[2] Fonte: Our World in Data nell'ambito dell'Oxford Martin Programme on Global Development presso l'Università di Oxford e in collaborazione con Global Change Data Labhttps://ourworldindata.org/grapher/covid-stringency-index

From the health crisis to the economic crisis

The intensification of the measures to contain the pandemic has allowed us to immediately glimpse the heavy repercussions also on an economic and social level. Although it allows to reduce the contagion, the lockdown in fact causes a shock on both the supply side and the demand side.

The intensity of the shock depends on the duration of the social distancing measures and the decrease in hours worked, in turn a function of two crucial parameters: the morbidity rate and the mortality rate of the infection.

However, these parameters cannot yet be assessed with a reasonable degree of approximation: for example, the mortality rate is calculated with respect to the number of confirmed cases which, however, could be largely underestimated[1].
This makes it difficult to estimate the future developments of the crisis.
Another factor of uncertainty, the importance of which has emerged with increasing evidence in the face of the progressive easing of the lockdown, concerns a possible resurgence of the virus and the need to restore more or less limited social distancing measures.

In the face of the aforementioned elements of uncertainty, it is however certain that the extent of the crisis will depend on identifiable and measurable factors, including: the economic-financial conditions and pre-existing vulnerabilities of a country (first of all, the growth and levels of public debt and private); the scope and timeliness of the measures to combat the crisis; the structural characteristics of the productive and organizational models of the economic-financial system.

Furthermore, the transmission channels that transform the health emergency into an economic crisis are clear. Social distancing measures correspond to negative effects both on the supply and demand for goods and services (internal consumption and net exports) and on the investment choices of companies, which in turn generate repercussions on the financial system (financial markets and banks) transforming it in a potential crisis detonator.

The transmission mechanisms, although identifiable, are nevertheless complex because they include both direct and indirect effects.

Regarding the supply-side shock, for example, the direct consequences of the stoppage of an activity in a sector and in a certain geographical area they can be associated with the indirect consequences on other sectors and other areas.
In the academic debate, the explicit discussion of a trade-off between health and economics has begun.
As will be said shortly, public spending could instead undergo an increase, in the face of expansionary budget policies to combat the crisis.

The supply shock can only be partially mitigated by substituting remote work (so-called smart working) for 'physical presence' activities: in fact, important sectors of the service sector (such as tourism and catering) and the industrial sector are excluded, for which the lockdown determines the closure of plants and factories.

Furthermore, as the duration of the lockdown increases, the possibility increases that for many companies the lockdown will become definitive (especially if they were already in a position of financial and capital vulnerability) and that the shock on the offer from temporary becomes permanent. In addition to generating the effects on the banking system which will be discussed shortly, this would enhance the shock on the demand side, through the fall in employment, income

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

Turning to the shock on the demand side, the restrictive measures on individual mobility have a direct and immediate negative impact on domestic consumption and net exports as well as on business investments.

The former concern a broad spectrum of goods and services (for example, tourism, retail trade, transport, mass entertainment) and are accentuated, in the intensity and perimeter of the sectors involved, by the so-called income effect and wealth effect.

The income effect derives from the contraction of the disposable income of families, affected by the slowdown or temporary closure of some businesses, who suffer a reduction in wages or, in the worst case, the loss of work: it should be temporary neo and vanish following the restoration of production rates and disposable income to pre-crisis levels[2].

The wealth effect is linked to the loss of value of financial assets owned by individuals in the face of the negative trend of the financial markets: this effect could also be transitory if, following the overcoming of the pandemic and the removal of the lockdown, conditions on the financial markets return more relaxed and investments in household portfolios would recover the losses suffered during the crisis.

The effects on net exports are affected by the repercussions of the pandemic on the dynamics of domestic demand from partner countries in trade and are all the more persistent the more asynchronous the spread of the epidemic between the countries themselves.

Finally, the impact on business investments can be more or less transitory also depending on the level of uncertainty about the continuation of the pandemic and the measures to combat the crisis implemented by the government and monetary authorities[3].

[1] Baker I., N. Bloom, S. Davis e S. Terry (2020), Covid-induced economic uncertainty, https://www.nber.org/papers/w26983.pdf

[2] Commissione europea (2020a), Spring Forecasts, https://ec.europa.eu/info/business-economy-euro/economicperformance-and-forecasts/economic-forecasts/spring-2020-economic-forecast-deep-and-unevenrecession-uncertain-recovery_en

[3] Fondo monetario internazionale (FMI, 2020c), Fiscal Monitor, aprile 2020, https://www.imf.org/en/Publications/FM/Issues/2020/04/06/fiscal-monitor-april-2020

The measures to combat the crisis

The spread of the pandemic triggered the debate on which measures could be most appropriate to counter the resulting economic crisis.

A point shared by most of the representatives of institutions and academia is the need for coordination to effectively deal with an exogenous and asymmetrical shock, between countries and between sectors of activity, and avoid costly fragmentation of policy responses adopted at the domestic level.

The ongoing emergency should be an opportunity to implement the lessons learned during the financial crisis in 2008, namely the need for close coordination between central banks and governments for the development of tense measures.
To remedy pre-existing vulnerabilities and to relaunch sustainable growth in the long term.

Although certain weaknesses that had acted as a trigger for the global financial crisis have been remedied in some areas, the state of public finances of most of the countries affected by the pandemic has deteriorated since 2008; economic growth had already shown signs of a slowdown at the end of 2019; the persisting geo-political tensions had already led to a reduction in foreign trade and a deterioration in international relations[1].

Furthermore, the economic-financial interconnections between countries and the asynchronous spread of the epidemic at a global level favor the transmission of the domestic effects of the crisis internationally and its persistence over time.

In the debate, moreover, it is agreed on the need to adopt contrasting measures capable of intercepting the transmission channels and amplification of supply and demand shocks by supporting:

1) companies, to contain the increase in the insolvency rate, the collapse of investments and the decline in productivity also linked to the possible maintenance of social distancing measures necessary to prevent subsequent waves of contagion;

2) households, in order to mitigate the decline in disposable income and consumption;

3) the banking system, in order to mitigate the effects of a deterioration in credit quality on the stability of banks and on the provision of loans to households and businesses

A final crucial factor for the effectiveness of policies to combat the crisis is the timeliness of interventions, which depends not only on the type of instrument chosen but also on the bureaucratic and decision-making models in place at public institutions and private entities involved in the implementation of the interventions themselves[2].

[1] Diebold, F. X., Yilmaz, K. (2009), Measuring Financial Asset Return and Volatility Spillovers, with Application to Global Equity Markets, Economic Journal, Royal Economic Society, vol. 119(534), pages 158-171

[2] Diebold, F. X., Yilmaz, K. (2012), Better to give than to receive: Predictive directional measurement of volatility spillovers, International Journal of Forecasting,
Elsevier, vol. 28(1), pages 57-66

The macroeconomic impact of the crisis

As of March 2020, several international institutions have updated their previous economic growth estimates for 2020 with strongly downward revisions. Further revisions followed in the following months, in most cases worse.

For our country, which has adopted very stringent measures to contain the pandemic, the IMF (2020) estimates a decline in GDP equal to 12.8% in 2020 (-9.1% in the IMF) compared to an average of euro area by 10.2% (-7.5% in the IMF).

The OECD figure fluctuates between about -12% and -14% depending on whether the single or double hit scenario is considered (for the euro area respectively -9.1% and -11.5%); the summer forecasts of July 7 of the European Commission indicate a contraction of 11.2% (-9.5% according to the spring forecast of the European Commission for April) compared to -8.7% for the euro area (-7 , 7% according to the spring forecast)

The human development index developed by the United Nations provides very clear evidence in this regard.
Starting from 1990 and up to 2019, the index has always grown, although showing a slowdown after the financial crisis of 2008.

The estimates for 2020 show a decline in the indicator for the first time, due to the combined impact of health emergency (with deaths that at 30 June 2020 exceeded 500 thousand cases in the world), the significant contraction of global GDP and the drastic reduction in school education for most of the students in the affected economies.

According to the United Nations, in fact, the closure of schools has affected almost 150 countries, or about one and a half billion children and young people, equal to almost 86% of the entire world student population.

The negative impact on education was only partially contained through the use of distance teaching techniques, in the face of heterogeneous connectivity conditions between countries and within the same country. Also for this reason, the Covid-19 crisis is acting as an amplifier of inequalities, with very negative consequences from a social as well as an economic point of view.

The marked impact of the crisis in our country also derives from the significant contribution of the sectors hardest hit by the crisis, including the tertiary sector (to which activities such as tourism, catering and entertainment refer) and the manufacturing sector.

A further factor capable of aggravating the repercussions of the crisis in Italy concerns the strong dependence on exports and, therefore, the greater exposure to significant contractions in international trade.
According to the latest estimates of the Bank of Italy (2020), global trade could experience a contraction of about 14% in 2020[1].

The data of the European Commission are more optimistic, which in the spring forecast fears a decline of 11%, and the updates released in June by the IMF, which production of basic pharmaceutical products and pharmaceutical preparations (-6.7%) and industries food, beverages and tobacco (-8.1%).

With specific reference to the italiano, the latest Istat surveys available, relating to the month of May 2020, show a decline on an annual basis in foreign trade equal to 35% for imports and 30% for exports.

The trend decline in imports recorded in April and May in the two main supply markets, namely Germany and France, is close to or greater than 40%. If we exclude the data referring to OPEC countries (linked to the unprecedented reduction in the price of oil), the most significant contraction is recorded with reference to imports from Russia (-45%) which represents 3.5% of total imported goods.

Imports from China, on the other hand, after the significant contraction recorded in March (-27.4%) show a recovery in April, when they showed a marginal decrease compared to 2019, and in May, with a slight increase compared to the corresponding month of last year.
As for exports, in April 2020 the decline on an annual basis was close to or more than 40% for all the major markets for Italian goods with the exception of Germany and China, where the decline was 34%.

In May the contraction in exports on an annual basis is more contained but still very significant. The countries that contribute most to the drop in exports are Spain (-40%), United Kingdom (-35%) and France (-34%) followed by the United States (-27%), China (-26%), Germany (-23%) and Switzerland (-18%).

The spread of the epidemic and the lockdown have also altered the functioning of the labor market, in the face of the application of social safety nets such as the extension of the Redundancy Fund (CIG) and the prohibition of dismissal which have partially mitigated its impact .

On the one hand, the blocking of production activities involved, in addition to the failure to start new employment relationships, the reduction of hours worked and the number of employees, which had already shown a moderate decline starting from the second half of 2019.

For 2020, Istat projections indicate an overall contraction in employment equal to 1.9%, which could persist even in the face of a subsequent recovery in GDP (compared to which the data typically follows a delayed cycle), with greater peaks in the sectors most affected by the consequences of the pandemic.

The disposable income of households, after the drastic decline recorded in the first quarter of 2020, is estimated to recover slightly in the following quarters due to the social safety nets activated to support workers and businesses and the gradual restoration of production activities.

Consistent with the decline in disposable income in the first quarter of the year, consumption also fell by almost 8%. Estimates relating to the trend in the savings rate indicate a return to pre-crisis levels in 2021, after a peak of more than 16% in the current year due to a greater propensity towards precautionary savings[2].

Several surveys highlight a severe impact of the crisis not only on the current economic situation but also on the expectations and future plans of Italian families.

[1] Commissione europea (2020b), Summer forecasts, July, https://ec.europa.eu/commission/presscorner/ detail/en/ip_20_1269 CONSOB (2017), Risk outlook, http://www.consob.it/web/area-pubblica/ro13

[2] Fondo monetario internazionale (FMI, 2020b), World Economic Outlook Update. A Crisis Like No Other, An Uncertain Recovery, https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020

Responses to the crisis

Faced with the economic crisis triggered by the health emergency, monetary policy authorities and governments have reacted with significant support and stimulus measures, much wider than those adopted in response to the 2008 global financial crisis[1].

Monetary policies

The first response to the crisis came, as usual, from monetary policy.

Central banks intervened in a timely manner in order to stabilize the markets and create the necessary conditions to ensure the correct transmission of monetary policy impulses to the real economy.

The instruments used included so-called conventional and non-conventional measures, depending on the room for maneuver available for interventions relating to the reference interest rate.

These margins are not homogeneous between areas: for example, the US Central Bank (Fed) has more room for maneuver than the European Central Bank (ECB), since interest rates in the euro area have remained at very low levels for some time and in some cases negative
The reference rates are the federal funds rate for the Fed and the reference rate for the main refinancing operations for the ECB[2].

The Euribor and Libor interbank rates are the rates on loans with a maturity of three months.

In the United States, the Fed, in addition to reducing interest rates, has launched various programs aimed at increasing the liquidity available to credit institutions and supporting credit to businesses and households; it also launched a new program of purchases of government securities and securitized securities with underlying mortgages (mortgage-backed securities).

In the euro area, the ECB has launched new extraordinary operations, as well as expanding and making more affordable those already started in previous years.

In particular, various initiatives were launched in March 2020: new longer-term bank refinancing operations (so-called Long Term Refinancing Operations, LTRO), at a more convenient cost than the previous ones, in order to provide immediate liquidity to the banking sector; a new series of targeted longer-term refinancing operations (Targeted Long Term Refinancig Operation 3, TLTRO3), aimed at favoring the provision of bank credit to the real economy, at a lower cost and for a higher total amount of funds, which banks can access depending on the stock of loans granted to the private sector; a temporary relaxation of the eligibility criteria applicable to the assets that banks use as collateral in refinancing transactions with the Eurosystem.

In addition, in May, the ECB launched a new series of long-term refinancing operations called pandemic emergency longer-term refinancing operations (PELTRO), to facilitate the maintenance of adequate levels of liquidity in the system even beyond the term of the LTRO.

With reference to open market operations, the ECB has expanded existing programs, i.e. the Expanded Asset Purchase Program (APP), for which an additional budget of 120 billion euros has been foreseen until the end year in addition to the 20 billion euros per month foreseen by the original program.

The program will continue at least until mid-2021 (in line with the time horizon envisaged for the other operations launched to counter the effects of the pandemic, i.e. the TLTRO3 and PELTRO programs) and in any case until the crisis connected to the pandemic. In this way, the ECB reacted to the progressive worsening of forecasts on economic activity in the Eurozone and the growing risk of deflation, triggered by the collapse of economic activity in the first months of the year and the drop in the price of oil.

Purchases of securities by the ECB thus began to rise again after having almost zeroed in 2019: at the end of June 2020, the cumulative stock of financial instruments purchased by the ECB under the various existing programs amounted to approximately € 2,900 billion (of which 2,350 billion represented by public securities), without considering the purchases made under the PEPP (approximately 355 billion at the end of June 2020)[3].

Despite the timely intervention of the ECB, preceded by a statement that had created confusion on the markets and then immediately rectified, some events have created uncertainty about the conduct of monetary policy in the euro area.

Reference is made, among others, to the ruling of the German Constitutional Court which ordered the Federal Government and Parliament to ensure that the ECB carries out a proportionality assessment of the government bond purchase program by the Central Bank within three months, in order to verify that the economic and fiscal effects are not excessive in relation to the monetary policy objectives[4].

With reference to the latter profile, the inflation rate is expected to remain below the target of 2% set by the Central Bank for a long time, since the upward pressure attributable to the supply-side shock should more than compensate.

[1] Cova, P. e G. Ferrero (2015), Il programma di acquisto di attività finanziarie per fini di politica monetaria dell'Eurosistema, https://www.bancaditalia.it/pubblicazioni/qef/2015-0270/QEF_270.pdf

[2] Rotman, D. (2020), Stop Covid or save the economy? We can do both, MIT Tech Review, https://www.technologyreview.com/2020/04/08/998785/stop-covid-or-save-the-economy-we-can-do-both/

[3] UNCTAD (2020), Impact of the COVID-19 Pandemic on Global FDI and GVC, Investment Trends Monitor, https://unctad.org/en/PublicationsLibrary/diaeiainf2020d3_en.pdf

[4] UNDP (2020), Covid-19 and human development: Assessing the crisis, envisioning the recovery, http://hdr.undp.org/sites/default/files/covid-19_and_human_development_0.pdf

Tax policies

Like what happened for monetary policy measures, the fiscal stimuli, announced and activated so far, are also significantly higher than the interventions carried out during previous crises.

The European Investment Bank (EIB) has also proposed the establishment of a pan-European guarantee fund for small and medium-sized enterprises in the amount of € 25 billion, which would aim to mobilize resources of up to € 200 billion in the form of loans.

An agreement was also reached within the Eurogroup on 9 April 2020 to provide the European Stability Mechanism (ESM) with an additional reinforced precautionary credit line, to which Member States who request it will be able to access with the sole condition that the resources obtained are used to finance the direct and indirect costs of health care, treatment and prevention (the final agreement was reached on 7 May 2020).

The ESM credit line, for a total amount of 240 billion euros, has been active since 1 June 2020 and will remain available until December 2022.
Each state will be able to borrow an amount equal to 2% of GDP (about 36 billion for Italy) at long maturities (10 years) and at a marginally above zero rate (0.1%).

Furthermore, on 27 May the European Commission proposed a new temporary European fund for reconstruction (called Next Generation EU) for an amount of 750 billion euros, in addition to the strengthening of the budgetary funds of the European Union for the period 2021-2027 to a total amount of approximately 1,100 billion.

On 21 July, an agreement was reached at the European Council on the proposal of the European Commission according to which the Next Generation EU fund will provide financing in part non-repayable (€ 390 billion) and partly in the form of loans (360 billion). To obtain these funds, requesting countries will have to submit a plan of interventions to support growth and employment, which improve economic and social resilience and promote digitalisation and environmental sustainability.

Overall, the measures launched by the European Commission amount to € 3,900 billion (including the measures adopted by national governments in line with the safeguard clause or the temporary derogations from the rules on state aid), equal to approximately 33% of the Eurozone's GDP. in 2019.

Although there is a clear need to respond to an exogenous and common shock in a coordinated and adequate way, some countries show a strong reluctance to start and debt-sharing programs.

There is fear of the risk of moral hazard, the most indebted Member States could in the future loosen even more public finance constraints in the face of the possibility of satisfying their financing needs with the issuance of common debt securities at European level.

However, this is a problem that can be considered of little importance in exceptional times such as that of the Covid-19 crisis, whose strongly negative repercussions concern fundamental areas such as that of safeguarding public health.

Furthermore, the issuance of common debt, in addition to providing governments with low-cost financial resources to deal with the emergency, would be much more effective than monetary policy operations in stabilizing markets and correcting negative expectations of operators.

Emerging and developing countries, in fact, will need a huge amount of resources to deal with the current health and economic emergency.

The advanced countries, through international institutions such as the IMF or the World Bank, find themselves in the need to intervene with support measures, also in order to prevent the structural fragility of a nation from undermining the progress made globally in containing the pandemic.

If some areas of the world were not to stem or stop the contagion, in fact, all countries would remain exposed to the risk of new epidemic waves.

Finally, it is necessary to project oneself into a medium to long-term dimension, given the uncertainties that weigh on the dynamics of the pandemic and the persistence of its economic consequences.

The European measures are flanked by various interventions launched at home by national governments to support businesses and families. According to IMF estimates, the interventions announced in many advanced economies in March 2020 alone amounted on average to more than 5% of GDP, while the amount of measures already implemented by the G20 countries at the beginning of April was around to 3.5% of GDP (compared to an average value of around 2% in 2009). It is useful to classify fiscal interventions into three groups, according to whether their impact on the public budget is, respectively, immediately pejorative without any possibility of recovery in the future, only temporarily worsening or a harbinger of potential liabilities that could turn into an aggravation of public finances in the years to come (Bruegel, 2020)[1].

- ➢ The first group includes immediate stimulus measures, such as public spending on the health system, subsidies to preserve employment or unemployment benefits, subsidies to small and medium-sized enterprises (SMEs), public investments and lost tax revenues (related to the one-off cancellation of the obligation to pay taxes and social security contributions).

- ➢ The second group includes the suspension of payments of taxes and social security contributions.

- ➢ The third group refers to liquidity support and public guarantees aimed at facilitating the access of families and businesses to bank credit.

Consistent with the lower room for maneuver allowed by the high domestic public debt, Italy stands out from other countries for the prevalence, with respect to immediate stimulus measures, of public guarantee programs for loans to the private sector (mainly SMEs) and of measures for the deferral of certain tax obligations for taxpayers.

The budgetary measures adopted to contain the economic consequences of the pandemic are heterogeneous between countries due to the different margins of maneuver allowed by their respective public finance fundamentals.
The crisis triggered by the Covid-19 emergency, in general, found a public sector more vulnerable than in the period before the outbreak of the global financial crisis in most of the affected countries.

The huge spending programs launched to tackle the pandemic and the parallel reduction in tax revenues, also due to the contraction of the total taxable income, will lead to a further and generalized worsening of public finance parameters. According to the estimates of the IMF, in 2020 the ratio of public debt to GDP in the main advanced economies will exceed 122% (more than 155% for Italy), while the deficit-to-GDP ratio will average around 10.7% (8.3% for Italy).

[1] EBA (2020), EU-wide Transparency Exercise, giugno 2020, https://eba.europa.eu/risk-analysis-and-data/euwide-transparency-exercise

The impact of the crisis on the stock markets

As regards the Italian market, in the first six months the FTSEMIB fell by 18 percentage points, recording a low on March 12 and then slowly recovering following the announcements of important measures to combat the crisis in Europe and at home.

The restrictive measures on operations on the markets

In March 2020, CONSOB intervened on several occasions with restrictive measures on certain types of operations on the markets, aimed at ensuring the proper functioning of the Italian financial market in the event of the turbulence induced by the spread of the Covid-19 pandemic.

On 12 March 2020, CONSOB temporarily banned short sales on 85 Italian shares listed on the MTA for the entire trading day of 13 March 2020. The ban was adopted in application of art. 23 of the Short Selling Regulation (Regulation (EU) no. 236/2012), taking into account the price change recorded by the securities on 12 March which exceeded the thresholds set by the reference regulations.

The prohibition concerned short sales assisted by the availability of the securities and extended and strengthened the scope of the 'naked' short selling ban, already in force for all shares since November 1, 2012 by virtue of the aforementioned Regulation[1].

The decrease in the share prices of non-financial companies and banks is matched by a decrease in the relative stock market multiples, i.e. in the ratio between price and earnings (price on earnings) and in the ratio between price and book value (price-to-book ratio).

The illiquidity indicator, the growth of which signals a worsening of liquidity conditions on the stock market, was calculated by applying the analysis in main components on four sub-indicators[2]:

1) range-based volatility indicator (difference between maximum and minimum price at the end of the trading day);

2) bid-ask spread indicator;

3) Amihud indicator (ratio between the absolute value of the return and the volume of trading);

4) implied volatility in option prices.

[1] Comitato per la programmazione e il coordinamento delle attività di educazione finanziaria (2020), Emergenza Covid-19: gli italiani tra fragilità e resilienza finanziaria, http://www.quellocheconta.gov.it/export/sites/ sitopef/modules/img/news/news095/Rapporto-Comitato-Doxa-v.13.pdf

[2] Darby, J., Ireland, J., Campbell, L. e Wren-Lewis, S. (1998), COMPACT: a rational expectations, intertemporal model of the United Kingdom economy, Economic Modelling,
Elsevier, vol. 16(1), pp. 1-52

The impact of the crisis on bond markets

Since March 2020, all bond markets, public and private, have experienced a general decline in prices and an increase in volatility.

With reference to Italy, in the first weeks of March the spread between the yield of the 10-year BTP and the German benchmark reached a peak of 320 basis points, going well beyond the average value of around 145 basis points recorded in the previous two months, to then gradually return to the levels observed at the beginning of the year (1.22% at 30 June) after the announcements of measures to combat the crisis[1].

With reference to Italy, in the first half of 2020 the primary market did not show any signs of particular tension, as evidenced by the fact that in the auctions of newly issued bonds, demand was almost always significantly higher than supply.

Similar indications can be found, with reference to secondary markets, from the yield curve of government bonds, which, although showing a slight flattening, remains substantially aligned with the curve at the end of December 2019, at levels far below those observed during the debt crisis sovereign in 2011.

In the second quarter of the year there was a gradual reduction in yields which, however, remained, at the end of June, slightly above the levels prior to the outbreak of the pandemic[2].

The effects of the crisis were most evident for Italian bank bonds, whose yields exceeded 3 percentage points in periods of greatest tension.

The dominant emotional state among Italian families seems to be fear of both contagion and a possible worsening of the family's economic situation, as reported by 68% of the sample, although in 71% of cases the income was not affected by the health emergency. About half of the interviewees perceive profound uncertainty and vulnerability with respect to unforeseen events and almost 40% believe it is necessary to act with caution on the economic-financial front.

During the lockdown, savings grew for a percentage of individuals ranging from 39% to 49% (depending on whether they were habitual savers or not). Of these, more than half would not invest additional savings in government bonds, given fears related to the financial sustainability of public debt, but there as many declare themselves interested in sustainable and responsible investment forms.

Finally, just over 34% of Italians consider liquidity as the main tool for their protection, together with the strengthening of public welfare (34%); insurance and pension products follow (18.6%)[3].

[1]Diebold, F. X., Yilmaz, K. (2014), On the Network Topology of Variance Decompositions: Measuring the Connectedness of Financial Firms, Journal of Econometrics, Vol. 182, No. 1, pp. 119-134

[2] ECB (2020), The euro area bank lending survey, 2020 Q2, https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html

[3] Ercolani, V. e F. Natoli (2020), Market Volatility and the Length of the Covid-19 Recession, https://www.bancaditalia.it/media/notizie/2020/ErcolaniNatoli_02052020.pdf

Conclusions

The Covid-19 pandemic, which has overwhelmed most of the globe since the early months of 2020, has now assumed the proportions of an epochal event and suggests a long time to resolution.

The outbreak of the pandemic hit the country when it was already in a phase of slowing growth, which for years has remained lower than that of the major advanced economies. Furthermore, pre-existing imbalances in public finances constitute a constraint on measures to combat the crisis.

At the European level, the response of the institutions was immediately superior to the measures adopted to combat the crises of 2008 and 2011 and, at the same time, exceptional: just think of the activation of the general safeguard clause of the Stability and Growth Pact , which for the first time allows all Member States to temporarily deviate from the medium-term budgetary targets.

The nature of the current crisis makes international cooperation more essential than ever to ensure effective and timely measures to support economic activity.

As for the Italian financial markets, the more relaxed conditions observed at the end of June mainly reflect the policies to combat the crisis adopted at domestic and international level.

On the equity market, however, the recovery in prices could undergo a sharp correction if general economic conditions worsen or the recovery turns out to be slower than expected.

In the sovereign bond market, tensions could emerge in the face of the deteriorating state of public finances and increased debt financing needs.

In the face of uncertain macroeconomic prospects, the risks appear to be on the downside also for Italian listed non-financial companies, which overall are characterized by a higher vulnerability than European companies.

This vulnerability makes it more difficult to sustain the higher level of debt that companies will have to contract to meet the additional liquidity needs generated by the crisis in a more or less intense way depending on the sector they belong to.

Any increase in insolvencies, the more likely the longer the economic stagnation lasts, would lead to an increase in bad debts for banks and, most likely, a credit rationing which in turn would strengthen the recession[1].

A positive note comes from the fact that in recent years Italian banks have recovered their capital strength and improved the quality of assets.

Such developments in the crisis would fuel expectations of a chain contraction of income, demand and employment in a vicious circle.

In this context, both measures to mitigate the risk of debtor default and any further public interventions to support a rapid recovery remain crucial. In addition to having a heavy impact on the economic growth of the countries involved, the pandemic is triggering or contributing to accelerate processes potentially suitable for radically changing the socio-economic context of reference.

The uncertainty about the developments of the health emergency and, therefore, about the possible recurrence of interruptions in global supply chains constitutes an impetus for the 'regionalization' of production activities, which had already begun after the 2008 crisis.

This could lead to a recomposition of global trade relations, with effects on countries that supply raw materials (such as emerging economies) or in any case dependent on exports (such as ours) which are not easy to forecast at the moment.

A second process concerns the acceleration of FinTech, a phenomenon that in recent years has revolutionized the payment services sector and is gradually developing in the financial services sector.

The lockdown first and the propensity to voluntarily maintain forms of social distancing could then favor a rapid evolution of the phenomenon both on the supply side and on the demand side.

Banks and financial market operators capable of remodeling and adapting their business models in an efficient and timely manner to new trends could become the drivers of profound innovations in the offer of banking and financial products and services.

At the same time, there could be a more rapid acceptance of technology by users and a growing propensity to use digital channels and platforms.

The possible acceleration of the digitization of financial services, while being a harbinger of potential benefits for all financial market participants, could increase the risk of financial exclusion of certain categories of users and make current attention profiles, for the purposes of investor protection and the stability of the financial markets, which until the outbreak of the crisis it was considered premature to address[2].

A third fundamental process that the pandemic could accelerate concerns the transition to the so-called green economy and, in parallel, the development of finance for sustainable growth.

At the same time, expectations of ever more extensive protectionist policies are growing, in the face of the renewed geopolitical tensions triggered by the pandemic and the strengthening of motivations, such as national security and public health protection, which had already justified a progressive closure to trade in recent yearS international (Javorcik, 2020).

This could lead to a recomposition of global trade relations, with effects on countries that supply raw materials (such as emerging economies) or in any case dependent on exports (such as ours) which are not easy to forecast at the moment.

[1] Schoenmaker, D. (2020), A green recovery, Bruegel, April 6

[2] S&P Global Ratings (2020), Economic Research. Eurozone Economy: The Balancing Act to Recovery, https://www.spglobal.com/ratings/en/research/articles/200625-economic-research-eurozone-economythe-balancing-act-to-recovery-11544141

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