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"Covid-19 Pandemic, Recession and Economic Recovery: A New Crash Test and A New Opportunity"

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COVID-19 PANDEMIC, RECESSION AND ECONOMIC RECOVERY: A NEW CRASH TEST AND A NEW OPPORTUNITY

CHAPTER 1 Crisis in the last decade

1.1 The worldwide financial crisis of 2008/2009

The global financial crisis that hit economies around the world in September 2008 began in the United States in 2006, due to the surge in high-risk lending. From 2000 to mid-2006, loans were also granted to customers without sufficient collateral and housing prices rose significantly, favored by the interest rates kept low by the Federal Reserve in response to the crises arising from the internet bubble and the attack of September 11, 2001. (Balli et al., 2013)

The interaction of these factors created a 'real estate bubble', further fuelled by securitisation operations, namely the possibility for credit institutions to transfer mortgages, transformed into securities, to third parties. The development of securitisations has led to the transfer of the bank's business model from the 'originate and hold' approach, in which the bank waits for a period of time before recovering the amount lent and the related interests, to the 'originate and distribute' approach. Securitisation allows for the immediate recovery of a large part of the credit to banks, but at the same time prevents a proper assessment of the reliability of customers. Financial institutions were able to expand their activities enormously in relation to equity (the phenomenon of leverage), but were exposed to the risk of significant losses. (Consob, 2021)

Following the bankruptcy of Lehman Brothers and Washington Mutual, and government takeovers of Fannie Mae, Freddie Mac, and AIG, "*the panic subsided in the first half of October after a variety of government actions to promote the liquidity and solvency of the financial sector, prices across most asset classes and commodities fell drastically, the cost of corporate and bank borrowing rose substantially, and financial market volatility rose to levels that have rarely, if ever, been seen.*"[1]

As highlighted by Balli et al. (2013), the subprime crisis for the first time revealed the central role of financial globalisation, measured by the ratio of cross-border assets and liabilities (averaged) over GDP.[2] The depth and breadth of globalisation have been accelerated by the foundation of the European Monetary Union in 1999, and according to the Deutsche Bundesbank (2009), at the end of

[1] In Ivashina V., Scharfstein D., *Bank Lending During the Financial Crisis of 2008*, Journal of Financial Economics, Volume 97, Issue 3, September 2010, page 320.

[2] In the aftermath of the crisis, interest income from debt securities provided a more powerful channel of risk-sharing than equity income, although the increase in risk-sharing through interest income was a by-product of the financial crisis, because to offset the decline in equity income, Industrial economies have increased their debt issuance to stimulate the national economy. See Dances, F. and Basher, S. A. and Balli, H. O., *International Income Risk-Sharing and the Global Financial Crisis of 2008-2009*, MPRA Paper No. 43720, January 2, 2013.

2007, total cross-border assets and liabilities had increased almost four times over 1999. Subsequent studies have stressed that increased financial globalisation leads to greater risk-sharing, which has a positive effect in times of financial stability or recovery, but it seems to increase risk exposure during periods of recession. According to the so-called ‘knife-edge property’ of the financial markets, financial interconnections act as a shock absorber only to a certain extent, to become, on the contrary, shock amplifiers once the turning point is passed. In addition, Beine et al. (2010) noted that the process of globalisation increases the likelihood of a simultaneous collapse of markets, so much so that Ibragimov et al. (2011) argue that financial intermediaries with less diversified portfolios make the event of a widespread collapse less likely. The spread of the subprime mortgage crisis is exemplary: the impact of the crisis on the US economy was minus because it was shared with other countries, but ended up hitting more heavily some countries because of not-perfect risk-sharing. (Balli et al., 2013)

As Ivashina and Scharfstein (2010) point out, another important conclusion drawn from the subprime mortgage crisis is that financial crises have the power to influence the real economy, namely the supply of credit to the corporate sector. Observing the trend of data on loan syndications, - the primary source of loans for large corporations, scholars have found that during the period of September 2008, the loans were 37% lower than in the previous quarter and 68% lower than in the March-May 2007 quarter. The decline concerned all types of loans, both those used for buyouts and takeovers, and those for real investments, including new revolving credit facilities and new term loans. These conclusions may appear in contrast to the study by Chari, Chistiano and Kehoe (2008), which documents that the commercial and industrial loans reported in the balance sheet of U.S. banks increased by about 100 billion from September to mid-October 2008. However, bearing in mind that the increase in commercial and industrial loans on bank balance sheets reflects an increase in withdrawals from existing revolving credit facilities, it follows that companies draw on their credit lines due to the concerns of the crisis, and not for ordinary commercial purposes. (Ivashina, Scharfstein, 2010)

As Trichet (2010) explains, the crisis had pushed up short-term money market rates and spreads, highlighting serious information asymmetries, deep imbalances in both the real economy and the financial systems, and the rapid emergence of insufficiently regulated and controlled financial instruments. The assessment of the risks contained in the new financial products was affected by their complexity but also by the mismanagement of risk, so much so that the ECB and other central banks had already explained to financial market participants the need for a general reassessment of risk.

The ECB and the Eurosystem responded to the crisis through a credit support strategy for the economy. On 9 August 2007, the ECB disbursed to euro area banks ‘95 billion of overnight credit, against collateral, at the then prevailing main refinancing rate', the first of four very large overnight fine-tuning, conducted at a fixed rate that met the entire demand and reduced tensions in the short term of the euro area money market. In a coordinated move, on 8 October 2008 the Bank of Canada, the Bank of England, the ECB, the Federal Reserve System, Sveriges Riksbank and the Swiss National Bank announced reductions in interest rates and, at the same time, the ECB reduced the reference rates by 50 basis points. (Trichet, 2010)

1.2 Greece and consequences of its financial crisis of 2014/2015

The combination of the severe financial crisis of 2008 and the damaging economic policies implemented over the past thirty years have brought Greece to the brink of an unprecedented crisis. (Meghir, 2010)

The roots of the errors perpetrated by successive governments at the head of the Greek Republic lie in the nationalist heritage and social attitudes inherited from the Ottoman Empire. Political parties have legitimized clientelism and a personalistic management of *res publica* in the name of an alleged 'social justice' or 'national necessity', using public sector employment and government subsidies to create ideological support and penalising productive activities and trade.

All governments have been characterized by rent seeking and corruption, and have exploited the resources of the country for personal benefit, abusing the contrast between an accursed state and a negative conception of the markets. Market transactions and the activities of Greek entrepreneurs were not seen as producers of wealth, but as a source of redistribution of existing wealth, leading to widespread inequality. (Karagiannis, Kondeas, 2012)

The interest in the *status quo*, the total lack of understanding of economic realities, the sentiments of nationalism and populism, the lack of conscious leadership have created an unproductive and inefficient public sector, maintained by unjust taxation as it is not redistributed but exploited for individualistic purposes. (Meghir, 2010)

The effects of what scholars call the 'Pork Barrel Politics', a political system based on favouritism and misuse of funds arising from the payment of taxes, has discredited the entire Greek economic order, weakened the internal market and prevented the prospect of foreign direct investment. The money has been diverted from the creation of efficient economic and social infrastructure and the improvement of the internal market.

As illustrated by Manos Matsaganis, associate Professor of Public Finance at Politecnico di Milano, in a 2015 interview, due to the corrupt behaviour of politicians and the blindness of the people in the face of economic and social backwardness, the international financial markets have lost confidence in Greece's economic capacities, realizing that although it belongs to the European Community, it presents a much worse level of risk than other Member States. The financial institutions that previously valued Greek bonds as well as German ones only realised a clear structural deficiency when Greece lost the capacity to finance public expenditure and could no longer access loans.

The government deficit was the product of the two most problematic aspects of Greek reality: government policy unable to collect taxes to use them for public purposes but to distribute benefits and privileges on the basis of clientele practices; and the belief that the blame for the deficit and financial problems lay with the markets, the European community, or even the ever-popular Americans.[3]

It seemed easier to pass the blame on to the outside and exacerbate the super-nationalist sentiments, believing that we could avoid an austerity regime for Greece in the face of a deficit of 15%. The result was rigid austerity and a deep and prolonged crisis and a slow recovery.

Not only was the Greek economy already weak, but it also lost competitiveness after entering the Euro zone. Indeed, the problem was not all in the public budget deficit, given that Spain and Ireland had no public deficit problems, some 40% of GDP before the crisis, while in Greece it was already over 100%. The real problem that all these countries had in common was the 'account deficit', the external deficit, or the difference between imports and exports, which reflect and amplify the weaknesses of the economic structure of these countries.

The external deficit in Greece in 2008, two years before the first bailout agreement, was even higher than the public deficit, over 16%.

The short-sightedness of politicians has continued to diminish the situation and has considered only a short-term management of the crisis. Greek governments had to consider every possible alternative and seriously question economic and financial policies only when they were forced by the crisis and the international community.

Moreover, as Meghir (2010) pointed out, the situation was made even more difficult by strict labour market regulation and strict regulation in general, which discouraged large companies, in sectors with high added value and highly skilled labour, in favour of sectors with low added value and low skilled labour capable of operating in the informal economy, where regulations can be easily circumvented.

The whole situation could only be resolved through a serious and rigorous programme of social, political and institutional reforms, to be pursued at the same time as prudent and pragmatic macroeconomic policies. As part of a policy strategy aimed at the development and industrial orientation of the market, the Greek government was forced to decide on a new development agenda for the renewal of the Greek economy. (Karagiannis, Kondeas, 2012)

The lack of reforms has forced young Greeks to pay a very high price. Studies and vocational training are far from international standards, while strict labour market standards prevent companies from investing and creating jobs. In addition, once they enter the system, the taxes they will have to pay will be high to repay the debt accumulated by previous governments, as well as social contributions to pay the generous pensions of Greece. (Meghir, 2010)

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[3] See Giovannini P., Perulli A. (eds.), *The Greek crisis: an unusual reading. Interview with Manos Matsaganis*, Cambio: rivista sulle trasformazioni sociali, 10, 2, 2015, pp. 183-197.

Indeed, reforms in the area of pensions and the labour market have been fundamental, but more than anything else, there has been a need for common social consensus, in order to overcome the idea that the rigid reform plan imposed by the international community meant a loss of national sovereignty and to accept that the losses of a minority were necessary for the benefit of the majority.

1.3 Current consequences of the Spanish Flu

The spread of COVID-19 caused a serious health crisis and the death of a very large number of people and had devastating short- and long-term socio-economic effects throughout the world.[4]

As noted by De Santis and Van der Veken (2020), this has resulted in an important increase in studies aimed at analysing and interpreting the data on the macroeconomic impact of Covid-19 pandemic.

An appropriate comparison term is provided by the great pandemic called Spanish flu - due to the increased attention it received from the national press in Spain - that afflicted the world's population in three waves between the spring of 1918 and the end of 1920. According to data on mortality rates in 48 countries, the deaths due to Spanish flu were about 40 million people worldwide, corresponding to 2.1 percent of the world's population at the time.[5]

Regardless of the failure to identify the origin of the pandemic - France, Kansas, China - the spread of the infection was favored by the transport of troops, as well as all other large-scale movements during the last year of the war.

Spanish flu was characterized by high mortality among young adults without pre-existing medical conditions, a key element in understanding the greater severity of the economic consequences than a disease with similar mortality, but with mortality circumscribed to the elderly and very young.

The macroeconomic analysis is based on the Barro and Ursúa (2008) and the "definition of disaster as a cumulative decline within one or more adjacent years of 10 per cent or more of real per capita GDP or real per capita consumption", related to information on annual long-term national accounts to study the determinants of GDP growth rates and private consumption, to isolate the effects of the Great Flu Pandemic. Keeping fixed the effects of World War I, obtained from the ratio of deaths in military combat to total population, 6.2 million military deaths related to combat from 1914 to 1918. In Barro et al.'s interpretation, flu and war play the role of 'exogenous shock' and 'associated events', recognized as unforeseen and, although lasting, temporary. If, because of the results, we applied the

[4] The spread of the new coronavirus (COVID-19) in early 2020 led to worldwide declines in stock prices, increases in stock-price volatility, decreases in nominal interest rates, and likely to contractions of real economic activity, as reflected in real GDP." in Barro R.J., Ursúa J.F., Weng J., The Coronavirus and the Great Influenza Pandemic: Lessons From the "Spanish Flu" For the Coronavirus's Potential Effects on Mortality and Economic Activity, NBER Working Paper Series, Working Paper 26866, page 2.

[5] Barro R.J., Ursúa J.F., Weng J., The Coronavirus and the Great Influenza Pandemic: Lessons From the "Spanish Flu" For the Coronavirus's Potential Effects on Mortality and Economic Activity, NBER Working Paper Series, Working Paper 26866.

flu mortality rate of 2.1% for Spanish flu to today's world population, we would have about 150 million deaths worldwide. Obviously this would not only be a frightening number of deaths: based on the regression analysis of economic growth carried out by Barro et al. (2020), measured by the growth rates of real GDP per capita and real consumption per capita, this mortality rate would lead to a decline in the typical country of 6% for GDP and 8% for private consumption.

The development of an efficient health system, partly offset by increased mobility, is at the basis of the inverse relationship between the mortality rate and the previous level of GDP per capita highlighted by the authors.

It follows that, thanks to the interaction between public health system, evolved and inclusive, and the resources invested to adopt extreme measures to contain the virus and with serious reductive effect of real GDP, the pandemic from COVID-19 will not produce consequences comparable to those of Spanish flu.

De Santis and Van der Veken (2020), using the mortality rates structure by Barro et al. (2020), produce a non-linear model in a country panel setting covering all major countries in the world, which are two key features characterizing pandemic diseases, and using as exogenous regressions the mortality rates between countries due to the Spanish flu.[6]

Their study highlights the drastic reduction in economic activity in low-income countries, with the risk of further increasing inequality, because of the obvious link between per capita income and the public resources invested to combat the virus. The authors calculate a real income loss due to the pandemic more than double for the typical low-income country than for the typical high-income country each year between 1918 and 1920: the expected cumulative income loss over the three periods amounts to 10,9% for the lower-income group and 4.7% for the higher-income group. ' The authors calculate the macroeconomic risks, "using 5% of expected deficit, at -52,1% for the country with lower average income and -15,4% for the country with higher average income in 1918", risks that remain very high during the next two years in the lower-income group of countries. The study notes that if the risks for high-income countries could be severe, for low-income countries they could be harmful. In fact, the results of the study may give some indications on the potential consequences of contraction and income inequality between low and high-income countries following the Covid-19 pandemic.

[6] "Traditional linear macroeconomic tools are ill-suited to address the economic risks, because downside risk can be measured by the left-tail of the conditional distribution of economic growth (Giglio et al., 2016; Adrian et al., 2019; Chavleishvili and Manganelli, 2019; Plagborg-Mller et al., 2020; Figueres and Jarocinski, 2020; De Santis and Van der Veken, 2020). Therefore, we estimate a non-linear model using quantile regressions and the
exible skewed-t distribution, which is indexed over four parameters that trace the mean, variance, skewness and kurtosis of the distribution."in De Santis R. A., Van der Veken W., Macroeconomic risks across the globe due to the Spanish Flu, Working Paper Series, No 2466, September 2020.

The real possibility of economic activity suffering a lethal backlash is probably at the basis of the common and strategic vision at international level, which is reflected in global monetary and fiscal policy interventions aimed at raising the fortunes of low-income countries.[7]

Farzanegan et al., (2021) report a series of extremely explanatory data: the OECD (2020) predicts that the COVID-19 epidemic has reduced global GDP growth by 4,2% in 2020, while the International Labour Organization estimates that global unemployment could increase by nearly 25 million (ILO 2020).

The study by Mckibbin and Fernando (2020) has shown that, however short, even a controlled epidemic has a significant impact on the global economy: the deep connections and interactions of the global economic fabric have clearly emerged. If ever there was any doubt that a country could still consider itself an 'island' in a global economy, the COVID-19 epidemic has finally shown that global cooperation, especially in the field of public health and economic development, is essential.

In fact, the slowdown in the Chinese economy, also due to production impediments, has interrupted supply chains and trade. The pandemic has highlighted the negative aspects of globalisation, and could even lead to a different regulation of interactions at international level. Furthermore, the worldwide flow of people, goods, money, as well as goods and intangible products, could determine the rapid spread of the epidemic. Farzanegan et al. (2020), in their study of 149 countries, highlighted a significant and positive association between case Fatality rate CFR and the KOF Swiss Economic Institute Index of Globalization.[8] Researchers found that, once other possible factors such as health infrastructure, demographic structure, regional dummies, able to influence both globalisation and COVID-19 mortality rates, had been checked, the effect of globalisation is statistically significant: "Controlling for other factors, countries 10 units higher in the globalization index (with standard deviation of 14) in earlier years are predicted to have an approximately 0.8 percentage points higher level of COVID-19 case Fatality rates (with standard deviation of 2.9)."[9]

Instead, the global economic model developed by Mckibbin and Fernando (2020) allows building and exploring different scenarios regarding the spread of COVID-19, which presuppose temporary shocks or a recurrent pandemic for an indefinite period. Every context imposes on governments concrete and financial choices and political responses in the short and long term. In addition, central banks and treasuries must also be able to operate the financial system despite the economic upheavals.

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[7] De Santis R. A., Van der Veken W., 2020, ibid.

[8] "The KOF Index of Globalization aims to measure the rate of globalization in countries around the world. Data used to construct the 2020 edition of the index was from 2018. The index is based on three dimensions, or core sets of indicators: economic, social, and political. Via these three dimensions, the overall index of globalization tries to assess current economic flows, economical restrictions, data on information flows, data on personal contact, and data on cultural proximity within surveyed countries." See Szmigiera M., *Globalization Index - top 50 countries 2020*, Statista, March 12, 2021, https://www.statista.com/statistics/268168/globalization-index-by-country/.

[9] See Farzanegan M.R., Feizi M., Gholipour H.F., *Globalization and the Outbreak of COVID-19: An Empirical Analysis*, Journal of Risk and Financial Management, 2021, 14(3), page 8.

One possible answer is the reduction of interest rates, but this is not a sufficient solution: the pandemic is a political and social problem with many facets, which requires response in monetary, fiscal and health policy.

Long-term responses are even more important in view of the fact that zoonotic diseases are not intended to disappear. Governments will need to rethink health strategies and investment in their health systems, especially in the least developed countries. (Mckibbin and Fernando, 2020) Policy-makers must take into account the growing trend towards globalisation and the opening of trade borders in countries with poor quality formal institutions and monitoring capacity, as well as low levels of information transparency and government accountability, can also lead to an increase in illegal trade and end up amplifying the speed of an epidemic. (Farzanegan et al. 2020)

Many countries have had to impose severe social restrictions "Government response such as cancellations of trade shows, conventions and festivals, and mandated closure of 'non-essential' industries, schools, daycare centers and other educational institutions will likely have a large negative impact on economic activity. Interestingly, the economic impacts could then be larger for industries categorized as 'non-essential'."[10]

In addition to the reduction of large-scale social interaction, quarantine of the infected and the dissemination of good hygiene practices can also reduce the extent of the contagion and thus reduce the social and economic cost of the epidemic. These considerations suggest that politicians must also invest in the expansion of health infrastructure, such as the increase in the number of modern hospital beds and the training and employment of qualified medical personnel, and in planning the health needs of the elderly. (Farzanegan et al. 2020).

Béland et al. (2020), in a study limited to the territory of the United States, observed that COVID-19 had a strong impact on the unemployment rate and working hours, while it had no significant impact on wages. *"There is now growing evidence that a significant proportion of cases are related to occupational exposure, suggesting that certain Occupations are now becoming riskier than others. In other words, occupational characteristics, such as as interacting with the public and being in contact with other workers, may thus be correlated to the likelihood of contracting the disease. Another important dimension is whether the worker is considered 'essential'.*" The economic consequences of this pandemic, measured by three indices - workers relatively more exposed to disease, workers working in the vicinity of colleagues and workers who can easily work at a distance - appear to have had a greater effect on certain occupations: the COVID-19 seems to disproportionately affect men, younger workers, Hispanics and less educated workers.

[10] See Béland, L.P., Brodeur, A., Wright, T., *The Short Term Economic Consequences of COVID-19: Exposure to Disease, Remote Work and Government Response*, IZA Discussion Papers, No. 13159, Institute of Labor Economics (IZA), Bonn, 2020, page 7.

These results also provide a basis for future decisions on the economic impacts of COVID-19, taking into account that if the short-term economic and health consequences have been demoralising, forecasts of long-term consequences are extremely uncertain.

CHAPTER 2 Relation between markets and measures

2.1 Governments and past monetary policy

The context generated by the global financial crisis has called into question the approach of the central banks belonging to the monetary policy (Samarina and Apokoritis, 2020) and forced the financial sector to review in macroeconomic terms the impact of financial crises on economic activity. In particular, the idea that economies can stabilize themselves is the subject of debate (Blanchard and Summers, 2019), as well as the need for banks to adopt a new post-crisis methodology. Attention to the effects of the crisis has focused on the level of inflation, which is constantly low and declining in many economies (Samarina and Apokoritis, 2020) and made it clear that a classic monetary policy is no longer sufficient to stimulate the economy.

In fact, once nominal interest rates are at the effective lower bound, central banks were found to have no tools to effectively address a severe recession, and had to adopt new forms of monetary policy (Samarina and Apokoritis, 2020) made indispensable by the serious financial and economic changes, transitory but likely to acquire a permanent character in the practice of monetary policy. (Blinder et al., 2017)

Blanchard and Summers (2019) make an accurate excursus on the slow transformation that the succession of crises and negative events have operated on macroeconomic theories. As a result of the Great Depression, economic cycles and recessions could no longer be considered natural casual events, but highly problematic manifestations due to a lack of aggregate demand, which was therefore to be maintained through government interventions in fiscal and monetary policy, aimed at regulating rates on bank liabilities, or even limiting competition between financial intermediaries.

This stabilization policy seemed to be reflected in the resounding economic successes following World War II, moderated only by the search for an optimal point on the Phillips curve to balance the rise in inflation. However, between the 1960s and early 1980s, stagflation due to the simultaneous rise in inflation and unemployment, as evidenced by Phelps (1968) and Friedman (1968), dispelled the presumption of a stable trade-off between inflation and unemployment. As a result, dominant macroeconomic theories considered "*production fluctuations associated with changes in nominal demand […] an illusion in the economists' version of 'freshwater', or a temporary consequence of the viscosity of wages and prices in the 'saltwater' version*." [11]

[11] Blanchard O., Summers L.H., Rethinking macroeconomic policies: evolution or revolution? , Money and Credit, 72 (287), 2019.

The monetary policy of the ‘Great moderation’, from the middle of the 80s to the middle of the 2000s, was characterized by a constant decrease in the variance of inflation, unemployment and production. The various economic shocks, starting with the 1987 stock market crash, the Japanese bubble in the early 90s, the technological bubble in 2000 were contrasted with ‘ad hoc interventions’, considered manageable and without significant macroeconomic consequences. Therefore, due to the presumption of having acquired total knowledge and dominance of the economic cycle and the immediate reactivity of central banks, the implementation of monetary policies, fiscal or financial measures adopted in the midst of the crisis have not led to a new theoretical framework.

In particular, the example of Japan is symptomatic: with a potential growth rate of about 1 per cent, hence limited productivity growth and demographic data, Japanese macroeconomic policy has had to resort to extreme methods, with “near-zero short- and long-term interest rates, large fiscal deficits leading to a sharp increase in public debt, massive central bank purchases and foreign demand in the form of current account surpluses”.

Scholars point out that if a potential recession hit the United States or Europe, it would result in a situation very similar to that of Japan, with zero rates, large fiscal deficits, inflation below the target and inadequate growth.

The huge real estate bubble that erupted in 1991 caused a collapse of the Japanese economy, fueled by too many low-interest loans and high demand for luxury goods and real estate. The value of the currency grew to 10-12%, while real income maintained a growth between 4.4% and 6.6%.

Real estate speculation and the failure of the Central Bank of Tokyo, such as the failure to implement the tax policy, contributed to the bubble both in the real estate market and in the financial market. “A critical point is that Japan’s asset price bubble was based on excessively optimistic expectations with respect to the future, which might be described as euphoria with the benefit of hindsight, rather than a rational bubble. Under continued price stability, the perceived potential output path shifted upwards as economic expansion prolonged, resulting in the emergence of euphoria and underestimation of inflationary pressure in view of the output gap. However, the increase in asset prices during this period also failed to provide sufficient evidence with which to assess whether this rise was the consequence of the advent of a new economy or just euphoria. After all, policymakers are unlikely to make an appropriate policy response without full knowledge of the nature of asset price hikes or a correct forecast of potential growth rates.”[12]

[12] Shiratsuka S., Asset Price Bubble in Japan in the 1980s: Lessons for Financial and Macroeconomic Stability, IMES Discussion Paper Series 2003-E-15, December 2003, https://www.imes.boj.or.jp/research/papers/english/03-E-15.pdf.

In early 1991, as the bubble burst, the Bank of Japan, in an effort to adopt a more disciplined policy, raised interest rates. As a result, the insolvency of customers after the exchange rate. And the foreclosure of assets offered as collateral did not lead to results, as most of them had lost much of their value. As a result of the collapse, losses reached one billion yen, corresponding to 2.4 percent of Japanese GDP. The banks were not able to take advantage of the facilities of the Bank of Japan, which allowed to expand the lending capacity of banks. In the face of refusal to renew loans, small businesses began to fail, at a rate of about a thousand per month, causing a sharp rise in unemployment that in April 1995 reached 3.2% of the population. Large companies began relocating, moving to nearby countries, which led to a further increase in unemployment.

These events plunged Japan into a period of deflation remembered as the "lost decade", with an annual growth of 1.4% of GDP. Japan's GDP growth reached 3.2% in 2006, but the 2007-2008 recession hit the nation, with GDP growth of 0.4% in 2007.[13]

As Blinder et al. (2017) "one thing we have surely learned - and should have learned from Japan decades earlier - is that sustained price stability is no guarantee of financial stability. Dangerous financial imbalances can build up under the calm surface of price stability. In fact, several authors have argued that monetary policy played an important role in creating the crisis by keeping interest rates too low for too long (cf. Taylor, 2009), which fueled an asset price boom and spurred financial intermediaries to increase leverage and take on excessive risks (Borio and Zhu, 2008)".

Macroeconomic models did not include the fact that financial dynamics guided economic performance, limiting the role of the financial system to the determination of a yield and stock price curve.[14]

On the contrary, events as explosions in the price of securities and interaction with excessive leverage are crucial, whether due to the choice of financial intermediaries to cut loans against losses, or due to reduced consumption and investment by consumers and businesses due to excessive indebtedness. As well as the question of the role of solvency and liquidity - in the United States mainly a question of liquidity rather than solvency, financial crises cannot be explained in a context of regular fluctuations in advanced economies, based on a "shock and propagation mechanism", that is to say, numerous small shocks, attributable to elements of demand or to elements of supply, defined by a linear propagation mechanism. Indeed, as Blanchard and Summers (2019) point out, "*they are characterized by non-linearity and positive feedback, so the shocks are strongly amplified rather than*

[13] Cirillo F., La bolla che paralizzò il Giappone, StartingFinance, 21.12.2016, https://www.startingfinance.com/approfondimenti/bolla-giappone/.

[14] Faugère C., Van Erlach J., A Required Yield Theory of Stock Market Valuation and Treasury Yield Determination, Financial Markets, Institutions & Instruments, 18, pp. 27 – 88.

dampened during their propagation". The most obvious non-linearity is the lower limit for nominal interest rates; in Southern Europe, it is the lower limit for nominal wage changes, which cannot go below zero. Another non-linearity is the so-called "doom loops" mechanism, resulting from the interaction between public debt and the banking system.

If added to this scenario are the long periods of depression following the financial crises, as also in the case of the Great Financial Crisis, there are numerous doubts about the hysteresis, the possibility that temporary shocks may have persistent or even permanent effects on potential output. Without neglecting the question of the ability of market economies to return naturally to their potential.[15]

Once invested by the effects of the crisis, central banks opted for a change of strategy and new monetary policy instruments. As Cukierman already observed in 2013, following radical events, the approach to consolidated monetary policy changes and requires changes and non-conventional instruments, with particular attention to monetary policies. The author noted that highly expansionary monetary policies do not necessarily increase inflation, but may reappear with the rise in the rate of credit. Because the effects of monetary policy on real economy and inflation depend on the state of the financial system, being less effective during financial crises than in normal times.[16]

As confirmed by Blinder et al. (2017) central banks have put in place new behaviours and methodologies, questioning their mandates, mainly in order to add financial stability, and have increased the scope and frequency of communications, also affecting the behaviour of central banks in countries not affected by the crisis on the wider use of macro-prudential instruments. Indeed, it should be noted that beyond the four central banks covering almost half of the world's GDP (World Bank, 2015), namely the Federal Reserve, the European Central Bank, the Bank of England and the Bank of Japan, central banks have not been reviewed and criticised and have not implemented unconventional monetary policies.[17]

While monetary policy plays a key role in the central bank agenda, the pre-existing concept has not undergone radical changes. The Fed and the ECB will review their own framework, mainly depending on the formulation of the objective of price stability, with the possibility of alternative orientation to average inflation or price level orientation (Bernanke, 2017; Svensson, 2020).

[15] When central banks adopted inflation targets and interest rate rules, stabilization was no longer automatic but dependent on the application of rules with sufficiently aggressive feedback, production and inflation at the policy rate. When the lower rate limit is binding and prevents this rule from working, the actual return of the economy to potential after a negative shock is questioned.
[16] Cukierman A., Monetary policy and institutions before, during, and after the global financial crisis, Journal of Financial Stability, Elsevier, vol. 9 (3), 2013.
[17] Blinder A., Ehrmann M., de Haan J., Jansen D., Necessity as the mother of invention: monetary policy after the crisis, Economic Policy, Volume 32, Issue 92, October 2017.

The crisis has inevitably brought up issues such as the lower limit on interest rates, or the approach of monetary policy to problems of financial stability. However, as already mentioned, the basic approach to monetary policy has not changed substantially, so that 70% of central bank governors have not taken into account the use of near-zero interest rates, negative rates, or forms of quantitative easing.

Yellen (2016) argues that although interest rates are at their lower limit, central banks have other instruments at their disposal: various forms of quantitative easing or "forward guidance". Rogoff (2017), in a fascinating concept, agrees that eliminating cash would also eliminate the actual lower interest rate limit. In an alternative approach, higher inflation expectations could be generated when policy rates reached the actual lower bound, taking into account the symmetry of the price-setting targets, at risk of recession.

The inference that the economies affected by severe shocks do not stabilize automatically without vigorous monetary and fiscal policy interventions suggests that the financial crisis would have had even worse consequences than those of the Great Depression. Therefore, strong stabilisation policies based on monetary policy should be adopted in order to provide sufficient room for manoeuvre to respond to adverse demand shocks. On the ability to stabilise fiscal policy, through the development of better stabilisers, and slower debt consolidation. On financial regulation aimed at reducing the risks and consequences of financial crises. (Blanchard and Summers, 2019)

The review of 14 central banks in advanced economies, conducted by Samarina and Apokoritis (2020), identifies clear changes during the period 2007-2018, in terms of adjustments, such as "*a better anchoring of inflation expectations around a (half) point of the target; reducing uncertainty about inflation and deviations from the target; strengthen the central bank's commitment to a price stability objective; strengthening the transparency and predictability of monetary policy*."

In this sense, Yellen (2016) had pointed out large-scale asset purchases and increasingly explicit forward guidance from the Federal Reserve, both "used to provide additional monetary policy accommodation after short-term interest rates fell close to zero". Treasury and mortgage securities purchases have lowered long-term lending rates, extended forward rate guidance has exerted significant downward pressure on longer-term borrowing rates. Therefore, they have helped to stimulate the growth of demand for goods and services, to reduce the unemployment rate, and to prevent inflation from falling below the 2% target.[18]

[18] Yellen J.L., Opening Remarks: The Federal Reserve's Monetary Policy Toolkit: Past, Present and Future, at "Designing Resilient Monetary Policy Frameworks for the Future", a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 26, 2016.

In order to stimulate economic recovery and restore the functioning of financial intermediation after the crisis, central banks used flexible monetary policy measures and extended refinancing facility instruments over longer horizons, on a wider scale and on a higher frequency, with an expanded set of counterparties and eligible collateral. And the refinancing operations, since the crisis, aim to achieve sufficient banking financing conditions.[19]

As Samarina and Apokoritis (2020) note, most of these measures have been considered 'temporary solutions in extreme circumstances'. On the other hand, as confirmed by analyses by Blinder et al. (2017), many scholars aim to maintain most of the unconventional policies, despite the skepticism of central bank governors. Indeed, the prudence of governors is confirmed by the lack of reliable data on the costs and benefits of the non-conventional policies implemented. Therefore, while certain goals have been achieved in terms of increased mandate scope, use of an extended range of instruments, more active communication, further studies on Quantitative Easing and negative rates are needed, as well as the role and forms that macro-prudential policy should take, which is currently considered to be one of the pillars of change to be incorporated into the central bank strategy.

[19] "The wide use of monetary policy instruments has led to a substantial increase in the size of central bank balance sheets, from 16.3% of GDP in 2007 to 38.4% of GDP in 2018 on average for 14 central banks analysed. For 5 central banks that carried out Quantitative Easing the average balance sheet size increased even more, from 11.8% of GDP in 2007 to 43.6% of GDP in 2018." in Samarina A. and Apokoritis N., Evolution of Monetary Policy Frameworks in the Post-crisis Environment, De Nederlandsche Bank Working Paper No. 664, January 7, 2020.

2.2 Actual market recession and new measures

The global financial crisis and its consequences have inspired many new viewpoints on international macroeconomic policy, thanks to numerous reflections both in terms of empirical evidence and theory. (Gopinath, 2020)

The forecast of a sharp contraction led to the use of both fiscal and monetary instruments on a global scale by economic institutions such as the International Monetary Fund. But the economic consequences, due to particularly severe shocks in specific sectors, also call for fiscal, monetary and financial market measures to keep economic relations alive, to allow the activity to gradually normalise once the pandemic is contained.

However, countries affected by the recession are limited in the use of conventional monetary instruments: at the time of the crisis, many high-income countries had historically low interest rates, with an average of 0.78%, and very high levels of public debt. As Bernanke (2020) points out, due to the changing nature of the macro-economy, conventional monetary policy is strongly circumscribed against interest rates at the lower limit. As a result, high-income countries have lowered their rates less than low-income countries, with an average variation in interest rates of -0.43% compared to -0.84% in low-income countries. And, above all, they have focused on the use of unconventional monetary policy instruments, such as greater guarantees by central banks, or greater relaxation on macro-prudential rules, or, a limitation of shareholder payments in the form of dividends. (Benmelech and Tzur-Ilan, 2020)

Above all, scholars point out that the greatest reactivity on the part of the countries concerned was achieved by the meeting of fiscal policy with monetary policy. Countries with almost no room for manoeuvre have used higher tax expenditure, primarily in the form of state guarantees, and broader fiscal programmes. Influenced by the consistent and conditioning variable of the sovereign credit rating before the crisis, as a country's credit rating influences its ability to pursue expansionary fiscal policies. Indeed, the authors believe that the ability to respond to health shocks through fiscal policies is facilitated by the higher sovereign credit rating. This implies that, in the face of the economic crisis, countries with lower credit ratings and, in particular, low-income countries will not be able to implement fiscal policies of the same magnitude, as they lack access to credit markets.[20]

Blanchard and Summers (2019), assuming stagnation with significantly negative interest rates or unsustainable increases in asset prices or credit expansion, considers the adoption of drastic measures

[20] Benmelech E., Tzur-Ilan N., The Determinants Of Fiscal And Monetary Policies During The COVID-19 Crisis, NBER Working Paper Series, July 2020.

to redefine the scope and size of the financial system, such as a much higher inflation target or the purchase of large-scale private assets.

Once the lack of effectiveness of monetary policy in relation to financial stability has been established, research believes that the safeguard of the system must be entrusted to financial regulation and macro-prudential policies. The defensive function of monetary policy, understood as "leaning against cleaning", or the possibility that monetary policy can act beforehand on the policy rate, remains in doubt. Above all, monetary policy has a late reaction time so it is difficult to use it for stabilization purposes, as it is not only necessary to recognise possible critical events, but also to be able to counter them well before they explode.

In addition, the interest rate does not have a significant impact on risk reduction: the rise in interest rates could slow credit growth and reduce risk-taking, but negatively affect existing debtors, increasing the chances of bankruptcy, and on financial intermediaries.

Therefore, as Svensson (2017) points out, this preventive law enforcement strategy does not appear to be acceptable, since it considers financial regulation and macro-prudential policies to be the most appropriate to manage financial stability beforehand. Monetary policy is limited to interest rates, so that "*the size of central bank balance sheets is not in itself a measure of inflationary pressure, even in the long term*".

Rather, on the basis of past crises, it would have been more opportune a debate on the drafting of public investment projects to be activated in a short time or the elaboration of new automatic stabilizers, with particular attention to the 'multipliers', the effects of fiscal policy on demand and output and their dependence on the specific type of fiscal adjustment and economic environment. In addition, with regard to debt management and debt reduction policy, lower and safer real rates imply the need to review acceptable debt levels.

On the other hand, it remains controversial for governments to forecast the rescue of financial and banking institutions, fearing that the certainty of rescue funds has contributed to excessive risk-taking and, therefore, to the crisis. This solution seems unlikely, as the only real post-crisis purpose was to prevent future crises, through increased capital ratios, tighter constraints for banks, advanced stress tests, regulatory policies that vary over time in order to promote stability.[21]

Scholars and policy makers are very cautious about assumptions of capital requirement variability or leverage limits, as, as we have already noted, the use of monetary policies are not always able to

[21] High levels of capital can be ensured statically through direct and dynamic capital regulation through stress tests that ensure adequate levels of capital even in an adverse scenario (apart from liquidity issues, which obviously require additional instruments).

identify adverse shocks, even less in advance to ensure an anti-cyclical effect, there is a risk that macroprudential policies that vary over time will end up having a procyclical effect. (Blanchard and Summers, 2019)

Svensson (2020) argues that “forecasts targeting” could be opted for, through publication, explanation and justification of interest rates and forecasts of inflation and unemployment, in order to delineate an assumption of responsibility from the Federal Open Market Committee (FOMC) in function of the strategies and the actions to implement.[22]

Yellen (2016) considers it likely that the use of interest on reserves will be essential for the future. The FOMC states that reinvesting repayments of principal from our securities holdings should take several years for the bank assets and reserves used to finance them, “to shrink passively to a more normal level”. The federal funds rate stands at about 3% in the long run, unlike more than 7% between 1965 and 2000, imposing higher restrictions on interest rate cuts than in previous periods. Although this prediction of a low future rate of federal funds is a testament to the FOMC’s ability to stabilize inflation at about 2%, a rate much lower than the rates that prevailed during the years.

However, the sharp decline in inflation over the last decade is due to a number of factors which, while clarifying the reasons for such low bond yields, have not yet been fully understood and framed: the forces determining long-term interest rate trends, and thus all forecasts in this area, are still undetermined. Even today, despite numerous researches and debates, the understanding of the complexity of the financial system and its functioning is rather limited, as well as the ability to predict and address further financial crises.

[22] Svensson L. E.O., Monetary Policy Strategies for the Federal Reserve, International Journal of Central Banking, International Journal of Central Banking, vol. 16 (1), 2020.

CHAPTER 3 Next Generation EU and the PNRR designed by Italian government

3.1 What is the Next Generation EU and how it will impact the market

Next Generation EU is the innovative stimulus package developed by the European Community to counter the negative effects of the Covid epidemic19, through economic transformations and new opportunities to be implemented thanks to a total investment of 750 billion euros.

The European strategy combines the effects of the EU's long-term budget with the Next Generation EU, which, although a temporary instrument and strictly linked to the historical moment, invests the highest sums ever budgeted by the EU.

With the adoption of the EU's long-term budget on 17 December 2020, more than 50% of the amount is directed towards renewing European objectives and policies, to be implemented through the Recovery and Resilience, RescEU and Eu4health facility, as well as Horizon 2020, InvestEU, the Rural Development Fund or the Fair Transition Fund, and the Digital Europe Programme. (Europe Recovery Plan, European Commission, 2021)

The first feature of the long-term structure of the new financial plan is flexibility, as the European Community intends to not only secure a solution to the current problems, but also lay the foundations for addressing future needs and uncertainties. Only through a radical change in the economies and societies of European countries in a more sustainable, resilient and responsive direction to the challenges and opportunities of ecological and digital transition can one imagine an effective outcome.

The long-term budget will continue to be financed by continuing to use customs duties, contributions from Member States based on value added tax (VAT), contributions based on gross national income (GNI), adding, from 1 January 2021, a national contribution based on recycled plastic packaging waste.

Loans to finance the recovery, undertaken by the European Commission on the financial markets at more favourable rates than many Member States, will be redistributed following ratification by each Member State in accordance with their respective constitutional requirements.

To raise up to around EUR 800 billion in current prices until 2026 for Next Generation EU at the best financial conditions (5% of EU GDP), the Commission will use a diversified financing strategy.[23]

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[23] "The Commission's Diversified funding strategy would combine: Annual borrowing decision; Funding plan key parameters communicated biannually, to offer Transparency and predictability to investors and other stakeholders; Structured and transparent relationships with banks supporting the issuance programme (via a Primary Dealer

The Facility for Recovery and Resilience rescEU is the core around which the entire plan revolves, with a forecast of EUR 672.5 billion in loans and grants to subsidise reforms and investments by Member States, on the basis of their recovery and resilience plans, a programme of reforms and investments until 2026.[24]

The path that led to this result began on 21 April 2020, with the presentation of a common roadmap for a shared recovery, by the President of the European Council, Charles Michel, and the President of the European Commission, Ursula von der Leyen. The European Council, as early as 23 April 2020, instructs the European Commission to draw up as a matter of urgency a proposal linking the Fund's forecast and the EU's long-term budget.

Therefore, on 27 May 2020, the European Commission presents the proposal for a Fund for Recovery and the EU's updated long-term budget, the Multiannual Financial Framework (MFF) for the period 2021-2027.[25]

On 12 June 2020, the Health Ministers discuss the proposal for Eu4health for the period 2021-2027, providing for greater resilience to health systems and a boost to innovation in the health sector, with a budget 25 times greater than the current health programme. On 23 June, the Environment Ministers focus on the direction to be given to the Green Deal and environmental and climate policies, now considered essential to the construction of a sustainable future for the next generations.

Between 17 and 21 July, at a meeting in Brussels, EU leaders reached agreement on the figure of EUR 750 billion for EU recovery action and on a long-term EU budget for 2021-2027 of EUR 1074 billion. As underlined by the President of the European Council, Charles Michel, these were "difficult negotiations in very difficult times for all Europeans. A marathon that ended successfully for all 27 Member States, but especially for citizens."

Following the conclusions of the European Council, which deepen the relevance of a single and resilient market, true driver of growth of the European economy in global competition, and of an

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Network); Multiple funding instruments (medium and long-term Bonds, some of which will be issued as Nextgenerationeu green Bonds, and EU-Bills) to maintain flexibility in terms of market access and to manage liquidity needs and the maturity profile; A combination of auctions and syndications, to ensure cost efficient access to the necessary funding on advantageous terms. The borrowing operations will be encoded in a robust governance framework, which will ensure coherent and consistent execution. In its work, the Commission will continue to coordinate with other issuers, including the EU Member States and supranational." in Nextgenerationeu Diversified funding strategy in a nutshell, European Commission, https://ec.europa.eu/info/strategy/eu-budget/eu-borrower-investor-relations/nextgenerationeu-diversified-funding-strategy_it_en.

[24] A plan for the recovery of Europe, Council of the European Union, https://www.consilium.europa.eu/it/policies/eu-recovery-plan/.

[25] A plan for the recovery of Europe, Council of the European Union, https://www.consilium.europa.eu/it/policies/eu-recovery-plan/.

economic and monetary union, as fundamental preconditions for a healthy economic recovery and the creation of a highly competitive and inclusive Europe for all citizens.

Moreover, on 6 October, ministers reached a political agreement on the mechanism for recovery and resilience, negotiated by EU leaders at the 17-21 July meeting, formalised by the Permanent Representatives Committee as a mandate for negotiations with the European Parliament. On 21 October 2020, Member States' ambassadors to the EU agreed on the Council’s position on the Capital Markets Recovery Package to help EU companies raise capital on public markets, support the lending capacity of banks, boost investment in the real economy.

The agreement, which complements the financial package of EUR 1,824.3 billion negotiated by EU leaders in July, which brings together the next multiannual financial framework (EUR 1,074.3 billion) and a temporary recovery instrument, Next Generation EU, of EUR 750 billion (in 2018 prices), will be submitted to the Member States for approval.

On 18 November 2020, the German Presidency of the Council and the European Parliament reached a political agreement on REACT-EU, the additional funding, which is part of the EU’s recovery effort, will be available over two years, 37.5 billion in 2021, 10 billion in 2022. Intended primarily to support health services, jobs and small and medium-sized enterprises while stimulating the twin green and digital transitions.

With the consent of the European Parliament of 16 December 2020, the Council shall adopt the Regulation establishing the EU Multiannual Financial Framework (MFF) for the period 2021-2027. The regulation provides for a long-term budget of EUR 1074.3 billion for the EU-27 at 2018 prices, including the integration of the European Development Fund. With the EUR 750 billion Next Generation EU Recovery Facility, it will enable the EU to provide unprecedented funding of EUR 1800 billion in the coming years to support the EU’s recovery and long-term priorities in its different policy areas.

The action plan aims at the central role of **the circular economy** in recovering from the crisis caused by the COVID-19 pandemic, highlighting how much influence the digitalisation and digital transformation of bureaucratic and communicative equipment will have in this plan.

The Interim Agreement of 18 December between the Council and the European Parliament negotiators on the Recovery and Resilience Facility, of EUR 672,5 billion (at 2018 prices), relates to the scope of the arrangement, the horizontal principles, the general eligibility rules of the national recovery and resilience plans, the elements to be provided in each plan, and the assessment criteria used by the Commission - at least 37% of the budget of each plan shall support the green transition and at least 20% digital transformation.

On 11 February 2021, the Council adopts the Regulation establishing the Recovery and Resilience Facility: support under the Facility will be subject to the consistent definition of project packages, reforms and investment in six policy areas. These areas are green transition, digital transformation, smart, sustainable and inclusive employment and growth, social and territorial cohesion, health and resilience, policies for the next generation, including education and skills.

The National Recovery and Resilience Plans, to be implemented by 2026, shall be in accordance with the guidelines specified in the European Semester programme, in particular the specific recommendations adopted by the Council for each country.

Furthermore with particular attention to green and digital transitions and the European strategy focused, according to the European Semester of 2021, on the European Green Agreement and environmental sustainability values, on the concept of competitive sustainability, productivity, equity and macroeconomic stability.[26]

Following approval by the Commission, Member States will be able to benefit from European disbursements only on the basis of appropriate strategies and projects specifically outlined not only in the structure but also in their implementation arrangements between 2021 and 2024. (Buti and Messori, 2020)

The Council shall maintain a coordinating and steering role in relation to the investments to be made, with the main objective of achieving an operational single market based on the principles of fair competition and free movement of goods and services.

The result is a close interdependence between the indications of the European Semester and the Instrument for Recovery and Resilience.

In addition, Member States are encouraged to present their national reform programmes and recovery and resilience plans in a single integrated document, which will provide an overview of the reforms and investments that Member States intend to undertake in subsequent years, in line with the objectives of the Instrument. RRF's access to resources is subject to an appropriate "National Recovery and Resilience Plan" consistent with the corresponding National Energy and Climate Plan, with the Green Deal Plan and elaborated as part of the "Just Transition Fund" with specific Partnership Agreements and National Operational Programmes with respect to the use of other European Union funds. (The Recovery and Resilience Facility, European Commission, 2021)

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[26] The Recovery and Resilience Facility, European Commission, https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en_en.

Furthermore, research and innovation are of particular importance, as they are indispensable tools for combating not only the current health and economic crisis, but also for forecasting and preventing future adverse economic conditions. They are also crucial in strengthening the European Research Area.

On 28 May, Council adopts a 330 billion cohesion package, a set of Regulations governing the structural and investment funds, "to finance regional and local projects designed to reduce economic and social disparities between member states and regions, while boosting a sustainable recovery from the pandemic by investing in green and digital priorities". (Council of the European Union, 2021)

As Buti and Messori (2020) point out, the NG-EU, although it is an exceptional intervention limited to national European and public expenditure flows between 2021 and 2026, without looking at existing public debt stocks, is a decisive step towards the **process of** European integration.

European economic governance evolves by implementing economic and fiscal policies, combining horizontal surveillance of national fiscal policies with vertical coordination between them and the European budget.

As a result of these changes, the EU's multiannual budgets assume a new central and innovative role. For the first time, MFF is ensuring the issuance of European debt securities intended to provide substantial resources for the stabilisation of the countries most affected by the pandemic crisis. Subsequent Mffs, in view of their commitment to repay the sums allocated to the recovery and reform of Community countries, will necessarily have to plan for the introduction of new own resources, not only by giving way to a different approach to tax policies on the basis of a centralised system, which in turn will require evolution in the direction of centralisation of forms of representation and, therefore, a political-institutional federalism. It becomes inevitable for individual governments to work together on the basis of common interests, in accordance with the principles of subsidiarity and loyal cooperation, with central government assuming the most important functions, and sharing the remaining competencies in subordinate levels of government.

The main objectives that emerge from the meetings and proposals discussed in the Council and the European Commission can be summed up in three words: convergence, resilience and transformation.

Indeed, the conjugation of the effects of the NG-EU programmes with the increasingly expansive monetary policies of the ECB are aimed at achieving adequate results in the recovery processes of the weaker countries, leading to a smaller disparity between member states, the strengthening of the European single market and, therefore, convergence with the strongest countries.

The redistributive objective, underlined by the transfers to the Multiannual Financial Framework determined by the weight of the GDP of each Member State in relation to the total GDP of the EU. In the opposite direction, the EUR 750 billion in transfers or loans are broken down according to the conditions of “greatest weakness” and the asymmetric and temporal intensity that led to the collapse of national economies particularly affected by the coronavirus. In fact, Celi et al. (2020) emphasize the antithesis between symmetry of the negative impact of the pandemic and the conditions of asymmetry of national economies: *“the ‘symmetric’ coronavirus shock hit countries that were in highly asymmetric conditions. In fact, not all the countries of the Union have the resources needed to intervene in support of their economy, prompting concern that countries with the deepest pockets might be getting an unfair advantage in the EU’s single market.”*[27]

Of the three areas on which the plan is based, the first is “Supporting Member States”, whose main component, over 85% of the support and about 75% of the entire NG-EU initiative, the Recovery and Resilience Facility, will provide 672, 5 billion in loans and grants by the end of 2024, in the form of non-repayable transfers. In addition to the items already present in the EU Mffs, such as cohesion funds, structural funds. The remainder as long-term loans at very low interest rates because guaranteed by the Union budget. (Buti and Messori, 2020)

In force since 19 February 2021, it contrasts its temporary nature and its alignment with the priorities set by the Commission with long-term results including a sustainable and inclusive recovery.[28]

The Commission, as we have already mentioned, always maintains a leading role vis-à-vis the Member States, indicating the “flagship areas”, first the “twin green and digital transitions”, on which investments and reforms should be targeted in order to generate economic benefits and employment. The European Commission stresses that this investment support aims to build a strong link between the economic recovery of individual EU Member States and the objectives of digital innovation and the achievement of the 'Green Deal', with the progressive reduction of emissions.

A second component of “Supporting Member States”, the “React-EU”, also aims to support green investments and digital innovations. The Recovery Assistance for Cohesion and the Territories of Europe, with a forecast of 47.5 billion, expands the response and overcoming the effects of the crisis implemented through the investment initiative in a green, digital and resilient economy. The resources

[27] Celi G., Guarascio D. & Simonazzi A., A fragile and divided European Union meets Covid-19: further disintegration or ÄHamiltonian moment'?. J. Ind. Bus. Econ. 47, 411-424 (2020).
[28] The Recovery and Resilience Facility, European Commission, https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en_en.

will be distributed between the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Fund for European Aid to the Most Deprived (FEAD).[29]

The initiative, in fact, is aimed at allocating funds made available to small and medium-sized enterprises and their employees, as well as activities related to tourism and culture.

The areas of **"**Supporting the Private Sector**"** and "Lessons from the Crisis", while providing for the allocation of a smaller amount, 95 billion euros, cover areas and services of major importance. In the second area, Members of the European Parliament approved the Investeu programme for 2021-2027. Set up as the backbone of the Juncker Plan,[30] Investeu aims to implement, directly or indirectly, financing and guarantees for European companies: "the new programme establishes an EU guarantee of around €26.2 billion which will allow investment partners to take higher risks and support projects they would otherwise have renounced. The European Investment Bank will continue to be the main investment partner, but national banks for business support in European countries and international financial institutions will also have direct access to the EU guarantee." As a result, the programme is expected to attract further investment for a forecast of 372 billion, encouraging recovery and the construction of innovative and dynamic economies.[31]

The third area is Eu4health and, in order to support and strengthen funding for research projects, Horizon Europe. This is the EU Framework Programme for Research and Innovation for the period 2021-2027, corresponding to EU's long-term budget, with a total budget of 95.5 billion (at current prices) including the EUR 5.4 billion earmarked for the Next Generation EU Recovery Plan. It is the

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[29] "Recovery and Resilience Facility (RRF) €672.5 billion
of which, loans €360 billion
of which, grants €312.5 billion
ReactEU €47.5 billion
Horizon Europe €5 billion
InvestEU €5.6 billion
Rural Development €7.5 billion
Just Transition Funds (JTF) €10 billion
RescEU €1.9 billion
TOTAL €750 billion
Source: Conclusions of the European Council of 21 July 2020" in Recovery plan for Europe, European Commission, https://ec.europa.eu/info/strategy/recovery-plan-europe_en.

[30] "When Jean-Claude Juncker was elected President of the European Commission in 2014, he announced the introduction of programmes to bridge the investment gap needed by the EU to overcome the effects of the financial and economic crisis of 2008. The idea behind the European Strategic Investment Fund was to use limited resources from the EU budget to provide guarantees to the European Investment Bank. In this way, the latter could approve even the riskiest projects, which it would normally reject, thus encouraging other investors to participate." in Investeu: the EU Investment Programme, European Parliament, 10-03-2021, https://www.europarl.europa.eu/news/it/headlines/eu-affairs/20210225STO98708/invests-il-programme-dell-ue-per-favorire-investments-investments.

[31] Investeu: EU Investment Programme, European Parliament, 10-03-2021, https://www.europarl.europa.eu/news/it/headlines/eu-affairs/20210225STO98708/investu-il-programme-dell-ue-per-re-favorigli-investments-investments_investments_invest.

largest research and innovation programme to be implemented through open and competitive calls for proposals.

As can be easily deduced from the reading of the data relating to the implementation of the plan the allocation is delayed to obtain appropriate redistributive effect to prevent the “Great Fragmentation” also because the structural balances of the EU.

As defined by several authors, the effects of the Covid19 pandemic are similar to a “typical exogenous shock” which has had a “community” impact but with completely asymmetric repercussions on individual Member States. These differentiated consequences can be explained by the profound differences between the various Member States in the development and spread of industrial sectors, some more affected than others did by the pandemic crisis. Moreover, the European Community is suffering from deep macroeconomic imbalances within the Community, linked mainly to the different fiscal capacities of each country.

In fact, at first the situation appeared far from “from triggering Mutual protection, [and] the Covid-19 crisis seems to be Paving the way for the same mistakes that followed the 2008 financial crisis.” However, although at the moment it can be said that this damaging approach has been amply overcome, the authors make it clear that “the survival of the Union depends not only on Responding to the severe financial problems caused by the epidemic, but also means addressing the long-term, structural problems that led to the increasing divergences among her members.” (Celi et al., 2020)

However, it must not mislead the ethical imperative that seems to have driven the countries least affected by the pandemic shock to go to the aid of the weakest: every decision in favour of redistribution policies was taken on the basis of sound economic reasons. Leaving the weakest and most affected countries without support could jeopardise the very survival of the single market and the European Union.

As mentioned above, the economic and territorial preconditions require a joint action plan and the overcoming of the conflict between debtors and “Frugals”. As well as taking advantage of the greater flexibility that has been given to European standards with the approval of the Recovery Plan, especially in the industrial field, foreseeing a deep restructuring of the production and reorganization of the Global value chains. (Celi et al., 2020)

In this sense the pandemic crisis has impacted some of the countries with the fundamental role of supplier of intermediate goods internationally (just think of China), with significant substitution effects of suppliers along value chains. (Baldwin and Tomiura 2020).

A rethink is needed, which would be appropriate if coordination of coalitions of producers across EU member states were to be envisaged, as "in a situation of strong productive complementarities between countries, the fortunes of the producers (workers and firms) in one country are bound to those in the other. This would call for a coordinated industrial policy at the European level aiming at ensuring a balanced development of the economies of its members through their integration in the European production networks." (Celi et al., 2020)

Interventions aimed at correcting the existing economic disparity, even more effective in a recovery phase than in an emergency phase, are dictated not only to avert the danger of a Great Fragmentation as a result of the crisis of COVID-19, but to strengthen the redistributive effects, implementing an intergovernmental and integrative community system. (Buti and Messori, 2020)

Indeed, as Picek (2020) points out, the Member States, rather than negotiating with the EU the numbers of their net payments to the extent of the difference between what is paid into the common budgets and what is received, should take into account the relevance of the growth effects triggered by the intervention package both at home (national multipliers) and abroad (spill-over effects for other EU countries). The author states that a coordinated and redistributive fiscal policy has the effect of increasing economic output, as the share of economic production from Southern and Eastern European Member States, implemented by a larger subsidy measure, allows greater growth of the economies of Northern and Western Europe than would result from their contributions. In addition, the increased concentration of concessions vis-à-vis southern and eastern EU countries is based on the assumption that other countries are able to finance themselves at a rate lower than or equal to that which European institutions can receive on the markets financial. (Picek, 2020)

Most of the actual payments will be disbursed after the acute crisis, as around three-quarters of RRF payments become effective in 2023 or later. The RRF and other grants are foreseen from 2021, in support of the economically weaker countries located mainly in the southern and eastern part of Europe, leaving the stronger ones in northern and western Europe, bear the costs of the crisis because of their ability to draw funds from other EU and euro area countries.

The choice of a truly "community" European economic policy, a common response to economic, academic and political crises for a long time to the less encouraging results of austerity, adopted as the main response to the aftermath of the financial crisis of 2008. [32]

[32] "The 2008 financial crisis, and the ensuing international liquidity crunch, prompted a "Sudden stop" of capital flows and a collapse in demand and Imports. At that point, the structural and institutional flaws of the EMU became evident: the reaction to the crisis aggravated the Divergence. With the blame for the crisis put squarely on borrowers, austerity policies were advocated (or imposed) to ensure debtor countries' public and private Solvency. With austerity killing demand, growth and Imports in the SP, Germany, which had built most of its huge trade surplus between 2003 and

The adoption of mutual and simultaneous measures to stimulate the economy allows only a small part of the economic benefits to benefit the territorial area outside the European Union: the Member States, thanks to membership of the single market, despite the smaller and different subsidies, they can thus benefit in an amplified way from the EU Package. (Picek, 2020)

The EU's fiscal and political response to the COVID-19 pandemic could be a Hamiltonian moment, "because it links a (temporary) EU fiscal capacity to a common growth agenda". However, for a real Hamiltonian moment to come, the EU must adopt a common fiscal policy in support of the common monetary policy, and not leave control of its policies to market surveillance. (Celi et al., 2020)

Despite the opposition between creditor and debtor countries, exacerbated by the Great Recession and the partial behaviour of Poland and Hungary (forced to accept the recognition of the State of law as a condition for receiving EU funds), the arrangement on NG-EU and the Multiannual Financial Framework for 2021-2027 shows a new attitude on the part of the European Government and its Member States, quite contrary to previous decisions. (de la Porte, Jensen, 2021)

In the context of the institutionalism centered on the actors, the decisive weight of the Member States in the decision to issue the common debt and distributive policy is evident. The agreement was possible thanks to changes in the position of the central actors, primarily in relation to the traditional budgetary policy in the EU. As well as the change of direction of the Frugals on the subsidy as an instrument within the NG-EU provided that there are precise conditions for its disbursement.

At the European Council, all States are seeking to achieve acceptable solutions on highly conflicting issues, which, in relation to the NG-EU and the multiannual financial framework for 2021-2027 are centered on the tax issue, on the acceptance of the rule of law and political conditionality, with particular attention to the macroeconomic context, climate and digitisation.

As regards the fiscal dimension, this includes first of all the choice of fiscal instruments, although the theme of loans and grants, "partially institutionalized" following the Great Recession, is not new, the subsidy instrument proposed in NG-EU, was opposed because, as we have already observed, it seems to lay the foundations for fiscal federalism.

Political conditionality, in close interaction with the bargaining on the distribution of resources, is expressed in the monitoring during their implementation, through the prediction of phases and detailed plans that if they are not implemented and respected obsequiously can also lead to the interruption of the grant. (de la Porte, Jensen, 2021)

2008 by exporting to the periphery, had to find new outlets for its goods." in de la Porte C., Jensen MD., The next generation EU: An analysis of the dimensions of conflict behind the deal, Social Policy & Administration, 2021.

3.2. PNRR designed by Italian government

The Recovery and Resilience Plan presented by Italy provides for the allocation of resources of 191.5 billion euros, financed through the Recovery and Resilience Facility RRF and 30,6 billion through the Supplementary Fund established by Decree-Law No 59 of 6 May 2021, on the basis of the multiannual budget gap approved in the Council of Ministers on 15 April. The total amount of funds earmarked amounts to 222.1 billion.[33]

Without counting the REACT-EU programme, which provides for an additional EUR 13 billion to be spent between 2021 and 2023, a further EUR 26 billion has been earmarked for the implementation of specific projects and for the replenishment of resources from the Development and Cohesion Fund by 2032, bringing the total funds to around EUR 248 billion.

Italy is among the first countries most affected by the pandemic crisis and among the first to benefit from the Recovery and Resilience Facility (RRF) and the Recovery Assistance Package for Cohesion and Territories of Europe (REACT-EU), to be used in the period 2021-2026, of which EUR 68.9 billion are grants. President Mario Draghi confirmed that Italy intends to make full use of the availability of funding through RRF loans, amounting to EUR 191.5 billion, divided into EUR 68.9 billion in grants and EUR 122.6 billion in loans. The first 70% of subsidies is already set by the official version of the RRF Regulation, while the remaining part will be definitively determined by 30 June 2022 on the basis of the GDP of the Member States recorded in 2020-2021 according to official statistics.

The amount of RRF loans to Italy has been estimated on the basis of the ceiling of 6.8% of gross national income in agreement with the Commission’s task force.[34]

As highlighted in the previous paragraph, the redistributive policy is strongly directed at the weakest countries and most prostrated by the effects of the crisis since Covid19. In the case of Italy, at the end of 2019, Italian GDP accounted for about 11.3% of European GDP; and, for the period 2014-2020, the Italian contributions to the MFF amounted to about 13.7% of the total national contributions (in turn, roughly equal to 70% of the overall size of the said seven-year budget). (Buti and Messori, 2020)

[33] National Recovery and Resilience Plan (PNRR), Ministry of Economy and Finance, MEF, 25 May 2021, https://www.mef.gov.it/focus/Il-Piano-Nazionale-di-Ripresa-e-Resilienza-PNRR/.

[34] Carmignani M., PNRR - National Recovery and Resilience Plan: what is and what is 2021, Digital Agenda, 13 May 2021, https://www.agendadigitale.eu/infrastructuring/national-national-plan-of-recovery e-resiliency-of-magnitude-bet-of-the-future-of-allitalia/.

The Plan is developed around three strategic axes shared at European level: digitisation and innovation, ecological transition, social inclusion. It is an intervention that aims to repair the economic and social damage of the pandemic crisis, contribute to solving the structural weaknesses of the Italian economy, and accompany the country on a path of ecological and environmental transition. PNRR will contribute substantially to reducing territorial, generational and gender gaps.

The plan allocates 82 billion to the Mezzogiorno out of 206 billion allowable according to the criterion of the territory (for a quota therefore of 40 percent) and provides for a significant investment in young people and women.

3.3. The programme for reconstruction and areas of intervention of the Recovery Fund

The Plan is based on six missions, divided into sixteen Components.

The mission headed to "Digitalization, Innovation, Competitiveness, Culture", 49.2 billion (of which 40.7 billion from the Recovery and Resilience Facility and 8.5 billion from the Complementary Fund), unravels through three components aimed at the digital modernisation of the country's communications infrastructure, public administration and production system. In particular, it aims to promote the digital transformation of the country, support the innovation of the production system, to which are allocated 5.88 billion euros, of which 4.48 billion to the[35] Transition Plan 4.0, and invest in the key sectors of tourism and culture.

The potential of the tourism sector, one of the sectors most affected by the crisis of Covid, strongly conditioned by seasonality, structural constraints and under-use of an incomparable landscape and cultural heritage, should benefit from a long-term strategy that looks not only at "big attractors", but also at the protection and enhancement of smaller sites and the regeneration of urban suburbs, enhancing the local identity and strengthening the social fabric of the territory.

Any renewal of the offer will be carried out in the context of environmental sustainability and enhancement of digital, to offer new services and improve access to tourism/ cultural resources.

The visible results can be translated into reaching the 100% share of the connected population by 2026, through fast connections for 8.5 million households and businesses. In addition, the achievement of the goal "connected school", with fiber optics in 9,000 schools; as well as increased connectivity for 12,000 SSN delivery points and digital transformation of tourism and culture sectors.

The second mission, "Green Revolution and Ecological Transition", with the forecast of a total of 68.6 billion (59.3 billion from the RRF Facility and 9.3 billion from the Fund) aims to strengthen the sustainability and resilience of the economic system, ensure a fair and inclusive environmental transition.

[35] "Component 2 of the Mission aims at the innovation and digitization of the production system, through significant transversal interventions in the economic and technological sectors, precisely Transition 4.0, with mechanisms that include the use of leverage to maximise available resources). High-tech sectors are supported by European strategic initiatives that can contribute to the development of distinctive skills. The transformation of small and medium-sized enterprises, strongly characterizing the Italian production system, is supported by processes of internationalization (positioning of Made in Italy) and competitiveness of the most innovative and strategic industrial sectors. Finally, it includes important investments to ensure the coverage of the entire territory with ultra-broadband networks (FTTH, FWA and 5G fiber)." in Carmignani M., PNRR - National Recovery and Resilience Plan: what is and what is 2021, Digital Agenda, 13 May 2021, https://www.agendadigitale.eu/infrastructuring/national-national-plan-of-recovery-e-resiliency-of-magnitude-bet-of-a-future-of-allitalia/.

The objectives within the mission are focused, first, on strengthening waste recycling, with the forecast of significant increases: + 55% in electrical waste, + 85% in paper waste, + 65% in plastic recycling, + 100% in textiles. Secondly, they aim to reduce the loss of drinking water on water networks and to implement the efficiency of 50,000 private and public buildings each year. Finally, the aim is to further develop research and the use of hydrogen in industry and transport.

The mission dedicated to “Infrastructures for a Sustainable Mobility”, from the total amount of 31,4 billion (25,1 billion from the RRF Device and 6,3 from the Bottom), intends to pursue the development of an infrastructure of modern transport, sustainable and extended to all areas of the country.

Obviously, this presupposes the modernization and the enhancement of the regional railroads, the engagement to reduce the times of distance on the railway drafts Rome-Pescara, Naples-Bari, Palermo-Catania, Salerno-Reggio Calabria. Investments in the construction of 'green' ports are not considered secondary.

The mission “Education and Research” with its 31.9 billion euros (30.9 billion from the RRF Facility and 1 billion from the Fund) has among the highest and most important objectives: strengthening the education system, digital and technical skills-scientific, research and technology transfer.

This will be possible through the creation of 228,000 new places in crèches for children between 0 and 6 years; the transformation of 100,000 classes into connected learning environments. An important role also concerns the renovation of schools, planned for 2.4 million square meters, the wiring of 40,000 school buildings. And the focus on research is also expressed through the funding of 6,000 new doctorates from 2021.

Mission number five, entitled “Inclusion and Cohesion”, provides for a total allocation of 22.4 billion (of which 19.8 billion from the RRF Facility and 2.6 billion from the Fund) to facilitate participation in the labour market, including through training, the consolidation of active labour policies and support for social inclusion.

Among the components of the mission is the establishment of a national programme to ensure employability of workers (GOL), increased support for female entrepreneurship through the 'Women’s Enterprise Fund', as well as other funds are planned to support vulnerable people, not self-sufficient and with disabilities. The forecast of specific infrastructure investments is intended to raise the Special Economic Zones.

The sixth mission dedicated to “Health”, with 18.5 billion (15.6 billion from the RRF and 2.9 billion from the Fund) aims to strengthen prevention and health services on the territory, modernize and digitize the health system and ensure fair access to care.

The implementation of this mission involves the construction of 1,288 new community houses and 381 community hospitals for local assistance, as well as 602 new Territorial Operations Centers for remote assistance; over 3,133 new large equipment for diagnosis and treatment. Nevertheless, 10% of those over 65 are expected to receive home care.[36]

The document precisely outlines the governance model identified in the central coordination at the Ministry of Economy and Finance, the only point of contact with the European Commission, prepared to send payment requests to the European Commission. A Control Room at the Presidency of the Council will accompany the central coordination.

Moreover, the government intends to create task forces able to support the territorial administrations and improve their investment capacity through the simplification of procedures. The political supervision of the plan is entrusted to a committee set up within the Presidency of the Council in which the competent ministers participate.

Ministries and local authorities, in their capacity as implementors of investments and reforms, will have a direct responsibility for the agreed timescales, and the correctness of the management of resources.

The Government noted that the Programme Missions could be regulated differently but not modified, as it is necessary to pursue the strategic objectives and the resulting reforms identified in the PNRR, projects and initiatives consistent with the strategic objectives of the European Semester.

The goals to be achieved in 2026 are primarily aimed at digital transformation, which involves all six missions, as a starting point capable of fuelling structural change.

The ambitious reform programme aimed at modernising the country and encouraging the development of business activity cannot be exempt from intervention in well-defined areas of fundamental importance. The reform of the Public Administration is necessary to improve services to citizens, the reform of justice aims to align Italy with other European legal systems, in particular through the reduction of uncertainty and time of court proceedings. Our country’s level of competitiveness depends on the automation and digitisation of public administration, which includes technological innovations to make services effective and rapid, interoperable and safe.

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[36] National Recovery and Resilience Plan (PNRR), Ministry of Economy and Finance, MEF, 25 May 2021, https://www.mef.gov.it/focus/Il-Piano-Nazionale-di-Ripresa-e-Resilienza-PNRR/.

Preparatory measures for the full implementation of the key reforms of the Central Administrations, through upskilling procedures and updating of the skills of the staff of the Public Administration, and a process of simplification of bureaucracy. (Carmignani, 2021)

The Covid-19 pandemic hit the Italian economy more than other European countries: in 2020, in fact, gross domestic product was reduced by 8.9 percent, compared to a decline in the European Union of 6.2. Between 1999 and 2019, GDP in Italy grew by a total of 7.9 percent. In Germany, France and Spain, the increase was 30.2%, 32.4% and 43.6% respectively. Between 2005 and 2019, the number of people below the poverty line rose from 3.3% to 7.7% of the population - before increasing further in 2020 to 9.4%.[37]

The forecast is that in 2026 GDP will be 3.6 percentage points higher than in a baseline scenario without support.[38]

[37] NATIONAL RECOVERY AND RESILIENCE PLAN, Chamber of Deputies, 1 Apr 2021, https://documenti.camera.it/leg18/doc/testPNRR.pdf.
[38] National Recovery and Resilience Plan (PNRR), Ministry of Economy and Finance, MEF, 25 May 2021, https://www.mef.gov.it/focus/Il-Piano-Nazionale-di-Ripresa-e-Resilienza-PNRR/.

CONCLUSION

The Next Generation EU is a historic step for the EU's economic policies as it disregards the previous attitude of the European community, firm on the principle of no issuance of common debt, as well as no redistributive fund in the event of a crisis.

As we have been able to ascertain, the new course could be preparatory to a real Hamiltonian moment in the EU, laying the foundations for the construction of a fiscal federalism, first, and then state. However, it is likely that the uncertainty about the definition of this new direction is to be found in the attitude of the governments of the so-called "frugal" countries, which could try to limit precisely this course "Hamiltonian" in view of debt-sharing and different political expectations, with a clear contrast between the Franco-German alliance and the Polish-Hungarian alliance. (de la Porte, Jensen, 2021)

In 1790, American administrators and political representatives also faced the dilemma between a confederation of states with great autonomy, and the constitution of a federal state with a strong central government. At the time of Hamilton, Secretary of the Treasury of the United States, contemporaries did not acknowledge that he had made the fundamental contribution to the formation of the modern United States. In the same way, in the European Union, only a retrospective look at future generations will be able to assess whether these regulations have laid the foundations of a new Europe.

In fact, the results obtained by the NGEU in terms of growth and employment, but also in terms of green transition and digitisation, could be the right factor in the choice between considering it a temporary instrument or the basis for a permanent fiscal union.

From an administrative and economic point of view, the impact of the NG-EU on economies facing high levels of public debt is crucial. In particular, the effect on the opportunities linked to the digital revolution, especially in the public sector, the realization of adequate infrastructure, the renewal of the productive fabric, with productions of higher added value.

The key to economic growth and sustainability is through automation and digitisation. (Carmignani, 2021)

Therefore, next-generation instruments should not be directed only at correcting the negative effects of a shock, but at planning a financial sustainability that is linked to strategic priorities.

Crises are both a test and an important lesson from which market participants and policymakers can learn the lessons they need to face the future. Orphanides (2011), for example, considers that the 2008 crisis clearly indicated that by preserving price stability, a central bank can take effective corrective measures and represent a standstill during a crisis. We are aware of the limits of monetary policy and, nevertheless, of the knowledge we have acquired.

Despite the great uncertainty between the forecasts of the various international financial institutions and those of the private sector, which is constantly evolving, the aftermath of a crisis may be a unique opportunity to agree, especially in the case of the EU, an appropriate shock absorption mechanism with a potential long-term stabilising impact.

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