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Luigi Paganetto *Editor*

Economic Challenges for Europe After the Pandemic

Proceedings of the XXXII Villa
Mondragone International Economic
Seminar, Rome, Italy, 2021



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Editor

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Creating an Epistemic Community: The Experience of the Villa Mondragone International Economic Seminar



Pasquale Lucio Scandizzo

1 The Themes of VIDMA as an Epistemic Community

As summarized in the contribution to the Paganetto & Scandizzo, 2020 conference by Paganetto and Scandizzo. One of the key themes of the Villa Mondragone Conference since its inception has been the determinants of economic development as endogenous growth, and, with a more recent emphasis, the problem of its sustainability (Scandizzo, 2019; Paganetto & Scandizzo, 2020). The foundation of a virtuous model of social development and realization of individual capabilities is not manifest knowledge, and many doubts persist on its constituents and durability. Creativity, both in the sense of cultural vitality and of entrepreneurial dynamism is a key ingredient, but its origin and persistence in modern society seems also elusive and somewhat mysterious. Institutional prowess, social virtues and altruism, together with qualities that do not seek but are ultimately their own reward also appear to be key to successful development over and beyond the often-narrow horizons of economic accomplishments (Phelps, 2015). At the same time, just as positive external effects, such as cooperation and joint knowledge, can promote growth beyond the limits of pure individual interests, so can negative external effects. These include private vices, like corruption and crimes, but also social failures, like growing income inequality and social injustice (Paganetto & Scandizzo, 2015, 2017). These may undermine the private bases of growth, by depressing factor productivity and agent's motivation for productive work. The lack of convergence among the different economies can therefore be explained by lacking or negative factors of endogenous development. Environmental externalities, such as greenhouse effects and other ecosystem changes may aggravate this

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condition since they tend to be ignored by individual countries, as in the case of climate change. In this respect, the current pandemics has shown how dramatic can become the day of reckoning of global threats, when they become real and present dangers. The presence of negative endogenous factors can transform a condition of insufficient and low-quality economic development into a trap, from which it may be increasingly difficult to get out (Paganetto & Scandizzo, 2010). It is perhaps this trap that characterizes the present crisis of the world model of growth, and the conjectures of secular stagnation that some economists have elaborated to explain the slowdown of development and transformative innovation in many countries and in the world as a whole.

Is this trap the reason why growth is so anemic and productivity stagnating despite seemingly accelerating technological progress? (Paganetto & Scandizzo, 2015, 2016, 2018). More than a theme, this has been a leit motive for a wider debate of most of the more recent VM conferences and associated events during the years (Paganetto & Scandizzo 2016, 2017, 2018, 2020). Secular stagnation has been proposed as one of the hypotheses, as a major consequence of lacking major technological innovations. Technological cycles, however, and abrupt paradigm changes appear to be better candidates to explain the recurrence as well as the apparent faltering of long and continuous period's economic growth through sustained changes in total factor productivity (Paganetto & Scandizzo, 2010).

The role of technology in raising total factor productivity was, of course, essential in the industrial revolution, but, to a large extent, it was determinant only to establish the conditions for a spectacular increase in high-speed throughput, i.e. both in an increase in output and in a decrease in inputs per unit of time. In fact, most of the technological advances throughout the nineteenth and the twentieth century were of the incremental variety, both in the sense that they were perfecting discoveries which had already been known for long time (as was the case of the steam engine) and in the broader sense that they were feeding into revolutionary new forms of organization of the firm and of society itself, through mechanization, automation and other forms of vertical integration of technological processes.

The first economic revolution was based on the discovery and expansion of agricultural activities as a systematic exploitation of domesticated forms of plants and livestock and traced a road to growth whose reckoning is part of the present critical slowdown of growth and deterioration of the quality of development. It determined a development of the frontier of agricultural land, a process that came to proceed hand in hand with the process of urbanization. As in the industrial revolution, in the agricultural revolution throughput increased dramatically, by both increasing the intensity of production and by pushing outward the frontier of cultivation at the expense of forests, pastures and other forms of native destination of the environment. Productivity increases were, of course, the very product of systematic agriculture, through cultural practices, the management of water, the application of manure and other organic fertilizer and the selection of plants and livestock to improve performance. Compared to the industrial revolution, in fact, the role of technology for progress in agriculture has been and continues to be perhaps more crucial, since the organizational changes that can be achieved by

lengthening the value chains are much more limited and entail higher economic and social transaction costs. The advancing Bioeconomy, which goes beyond agriculture in a more comprehensive governance of the ecosystem and of the biosphere as a whole is the new frontier of this development and a real hope to reach a sustainable equilibrium between nature and nurture (Scandizzo, 2009).

Anemic growth may also signal the prodrome of a third economic revolution in the 1980s or of a the never fully realized acceleration of productivity from ITC within the second economic revolution. According with several cyclical theories, peaks of economic prosperity are caused by waves of primary and secondary investments, stimulated by innovations, and followed by secondary technological changes and further investment (Scandizzo & Ventura, 2016). The inevitable slackening of the process, once the original momentum is lost, causes equally inevitable petering out of economic growth until another cluster of innovation materializes. In all cases, however, while endogenous growth appears to settle in during the change, the primary motion of the change appears somewhat mysterious, not fully endogenous and not fully exogenous, be it the technological shift at the basis of the “economic revolutions” or on an original and unexpected cluster of innovations that are described as the prime movers of a new science and technology paradigm. The production and use of energy in economic development, with the emerging overriding role of a green growth paradigm, may, however, be the missing link to explain the possible rise of the next cluster of disruptive innovations or, alternatively, the next inflection in the supply curve of new knowledge.

Yet another question on anemic growth concerns Europe, and its apparent difficulty not only to grow at a sustained rate, but even to keep up with its economic and political partners, face the challenge of China and the other emerging powers and provide a vision of economic and social progress to its citizens. As pointed out by many participants of the conference and related seminars, the problem of growth in the euro area is loaded with ambiguities, as a result of a fundamental misunderstanding. The misconception concerns the difference between the material well-being of the population, and the realization of the European Union.

What is the difference between mere economic growth and the pursuit of peace, justice and well-being through the political union of Europe? Everyone will agree with the obvious proposition that a larger set of goods and services available to a community is preferable to a smaller one. Growth in present and future consumption is therefore a fundamental criterion of efficiency, where the only yardstick is the importance (“utility”) that society from time to time attributes to the various components of consumption. But here is the critical point, since this utility is dependent on the satisfaction of individual rights, namely the subjective and objective conditions of the social system considered. A theory of negative rights, such as that of the most representative neo-liberal philosophers, argues that individuals are inviolable moral spaces and that what must be preserved is respect for the rules by which individuals acquire resources and rights. Justice is therefore primarily dependent on procedures and legal certainty depends in a sense on a formalism that prevents the state from entering into the merits of the choices of the individual. Judged in this context, the historical events of the

European Union do not appear at all desperate. The market, the theater in which one plays the game of survival and economic selection under uncertainty, can only lead to inequalities. Income distribution, employment, transfers are more or less “right”, only insofar as they contribute to ensure the efficiency of the system. Even inequalities, unemployment, poverty can therefore be justified if they are the inevitable by-products of economic development. The EU, in other words, should not be judged in *se ipsa*, but as part of the grand design of growth of the economic well-being of the countries that comprise it. Only if such a design causes a permanent underdevelopment of any area or ends up being a chain that prevents greater economic momentum, the EU will have to judge “unjust” its condition.

An opposite point of view, however, rests on the theory of positive rights, where the traditional concepts of well-being and utility are replaced by the concepts of “capability” and “functions”. The realization of the ability of people to get into interactive relationships with the environment, “working” as consumers, workers, producers, friends, voters, citizens, etc., is, according to this theory, the real economic problem. The injustice of social conditions is the failure to achieve these capabilities, with effects that extend from material deprivation, unemployment, to anomie, i.e. a total divergence between ability and accomplishments (Phelps, 2015; Paganetto & Scandizzo, 2017, 2018). As a weak link in the production chain of the EU, Italy is the place where a gap between capacity and functions is consumed in more spectacular forms, as the country has already widely experienced in the past with its less developed Southern regions. In this context of progressive alienation and lack of positive accomplishments, the expectations created by the media, politics, culture from the participation to the European venture are continuously dashed, while, on the other hand, their failure equally continually creates new expectations of non-satisfaction, to be unemployed, poor, abandoned, forgotten. The two fundamental freedoms, which summarize negative and positive justice, are the freedom to act and the freedom to feel good, both in varying degrees negated by the lack of economic growth, not satisfied by a convergence towards the patterns of life of the richer part of Europe, by the collapse of the illusions fed by the overoptimistic and naïve original vision of the monetary union. The problem of Europe, in this regard, is distinct from the problem of Italy. For Europe, the challenge of the Union is to adopt the best policies to achieve the goals of justice, freedom and well-being, without indulging in the economic temptations and, at the same time, without losing sight of the unification process. In this context, the economic policies prevailing before the pandemics (the so called stability and growth pact) can be legitimately criticized as a permanently restrictive fiscal policy, based on economic concerns on the weaker areas and the potential free riders, without a strategic vision of the common objectives. On the other hand, in view of the positive rights and freedom, the condition of Italy is essentially different from that of the Union as a whole. It is for those who want to embrace a moral philosophy of an active type that appears in all its seriousness the problem of the lack of development of Italy: first of all a problem of growth objectives and priorities, as well as identification of interventions. The main problem is a social context characterized by lack of institutions capable of producing and planning consent,

with a national drama arising both from the shortcomings of positive rights, and the negative rights seeming to validate social inequalities.

Focus on the European growth anemics brings to the fore the fact that endogenous, knowledge-based growth may be lacking a crucial dimension for socially sustainable development. Globalization and shifting wealth, in fact, combined with biased technological progress threaten to undermine the social fabric of modern society as we know it, by polarizing labor markets in a continuing and ever-growing raise in inequality in income distribution, social status and inclusiveness (Paganetto & Scandizzo, 2003, 2018; Scandizzo and Pierleoni, 2018). These phenomena are part of a broader resource reallocation process within and across countries, resulting in greater demand for skills and a drive towards greater inequality. Accelerated high skill biased technological change, with the emergence of a fully digitalized, AI (artificially intelligence) driven economy, increases further the premium on highly qualified labor. These processes have been accentuated by the current pandemics in a more dramatic and extreme way, since the lockdowns have mostly hit the less qualified jobs in the manufacturing service sector, with fewer or null possibilities of developing new remote working modes and evolving models of distance labor. Further polarization has occurred between the higher level workers, who have continued and even intensified their activities, but have reduced consumption and accumulated savings, and lower level employees, small manufacturers and artisans, whose incomes have been shrinking because of the fall in demand.

However, the pandemic has also shown that declining public investment (Scandizzo & Napodano, 2010; Scandizzo & Tria, 2018; Scandizzo & Pierleoni, 2020) is linked to a critical lack of public goods and rather than means to an end, these goods should be considered an end themselves. In other words, rather than pursuing an elusive and abstract target of social well-being, it would be better to provide directly more public goods, like education, health services, unemployment protection.

Many of these considerations lead to reiterate one of the crucial questions raised by the conference: what can be considered “a good economy”? (Paganetto & Scandizzo, 2014). This theme echoes the three structural dilemmas of sustainable development that seem to escape the paradigm of the traditional governance: growing social injustice, individual loss of dignity and dynamism, progressive alienation from nature and nurture. These three problems have become more visible during the recent, and persistent, economic and financial crisis, and have somewhat exploded during the pandemics. The “Good Economy” is a broader concept of that encompasses the idea of a sharing prosperity but goes beyond the mere combination of growth and equality. As Paganetto and Scandizzo (2014) note, “the term “Good Economy” has recently entered into the language of economists through the work of E. Phelps, who adopts it to define what, in his view, is an innovative and dynamic system with inclusion, creativity, self-fulfillment, satisfaction and personal development”. The “good economy” is thus a more just and sustainable economic system and has much in common with the concept of pre-distribution as it aims to implement economic policies to “build” sustainable forms of social justice, rather than to repair the injustices determined by the current mechanisms of competition and democracy. It follows John Rawl’s ideas on social justice in denouncing the

traditional welfare-state capitalism, which “... rejects the fair value of the political liberties, and while it has some concern for equality of opportunity, the policies necessary to achieve that are not followed. It permits very large inequalities in the ownership of real property (productive assets and natural resources) so that the control of the economy and much of political life rests in few hands”.

2 Some Conclusions

This year VM conference comes at a critical moment where the world economy is still in shock, but a light at the end of the pandemic tunnel begins to shine. It is very difficult to predict even the broad lines of the recovery that will take place, and of the further crises that could appear on the scene to put it at risk, because of no quantitative evidence of similar historical events, except for distant and diverse narratives such as the Black Death and the Spanish flu. The most similar documented historical examples are the two world wars, with the enemy in the clothes of the virus, or vice versa, although there are profound economic differences between the two situations.

The Covid crisis has been a negative supply shock and, almost simultaneously, a demand shock, according to a model not comparable to that of the world wars that, although in different ways, also combined positive and negative supply and demand components. One of the biggest differences is the impact on employment, which is quite different in the case of a war and particularly worrying in the current situation. But the effect on assets is also totally different, because the war destroyed them, while the Covid crisis, in the presence of an ever-growing money supply, has created them out of nowhere, overestimating them in an unpredictable and worrying way. Another difference, perhaps even more profound, is the dual impact (the so-called decoupling) on the economy, with many sectors of services, from culture to tourism, but also in commerce and retail, hit to death and others not touched or even benefited by the crisis. Similarly, we are witnessing a dramatic decoupling around the world between the rich, who not only do not suffer from the crisis, but see the value of their assets grow disproportionately in increasingly exuberant financial markets, and the poor who suffer the consequences of unemployment and the crisis of small and medium-sized enterprises, which are also most affected by the primary and secondary effects of the crisis. Under these conditions, the fall in demand also implies an unprecedented accumulation of savings by lockdown consumers and an equally unprecedented loss of receipts from their non-suppliers. This effect, which leads to an increase in the stock of savings on the one hand and poverty on the other, is equivalent to a massive transfer of wealth. Apart from its iniquity, it is difficult to give an economic interpretation and to predict whether, how and when a sustainable balance between assets and incomes can be restored. In the more developed countries almost a quarter of households appear to be facing an improper tax that reduces their incomes and increases the wealth of the rest of the population. For the poorest countries, the situation is less clear, but the polarization between

those who accumulate savings by abstaining from consumption in lockdowns and those who see their incomes fall is probably even greater. But this situation, which is in many ways paradoxical, causes further decoupling: that between public capital, where the process of accumulation, which has long been worryingly slowed down, and private capital. This decoupling also continues in the growing role that the state is acquiring in the economy as a result of the current crisis and even worsens, due to the growing weight of the cyclical component in monetary and fiscal policies.

Let us look at these policies. In many countries, different forms of quantitative easing have expanded the liquidity of the financial system through purchases of government bonds by central banks, and, in many cases, also through the purchase of private sector corporate bonds. This great monetary expansion was perhaps inevitable, and saved us from the depression, but it did not solve any structural problems, and rather aggravated the gap between public capital and private assets. It also carries long-term implications and creates several future macroeconomic risks, including a sudden correction in the prices of credit-inflated assets at extremely low interest rates and those of a season of explosive inflation of goods and services as economic activity picks up. Even on the optimistic assumption that future inflation will remain very low for an indefinite period, however, we must be concerned about the explosion of debt, which would instead be tempered by higher inflation.

Let us now consider the tax responses. In judging them, it is important to distinguish between those elements which have the nature of fiscal *stimulus* and those in the form of tax *relief*. The significance of the stimulus is that it corresponds to deliberate budgetary action through higher public spending, tax cuts, more generous social welfare benefits or payments to stimulate (we could say, resurrect) economic activity. Fiscal stimulus is aimed at the demand side of the economy and should work by increasing total spending to reverse an unexpected recession. On the contrary, tax relief is mainly directed at the supply side to stabilize production through tax breaks, although tax breaks can have secondary effects on demand that lead to future gains in output.

Before the current crisis, modern societies already seemed to be haunted by the ghost of missing growth. The inability to generate persistent growth had also been described as a set of scenarios of “secular stagnation”, which could have been aggravated by fiscal policy and consolidation measures focusing on cuts in public investment spending. Before the pandemic, budgetary constraints had been particularly tight in the euro area due to the strict rules of the Stability and Growth Pact and further political reactions after the start of the euro crisis. In this context, although there is no data on previous experience for many aspects of the current situation, the conference and a series of related seminars appear to be instrumental in presenting some of the latest developments in scientific research in economics and in suggesting some of the appropriate responses to the crisis and the broad outlines for policy actions. These studies, based on a set of theoretical insights, econometric estimates and cost-benefit analyses, suggest that public investment may be the best way out of the crisis, as long as public projects are efficient and carried out on a much larger scale than experienced or even suggested in the past.

As in the past years, the studies presented for this edition of the conference offer a robust combination of traditional methods of economic research with scientific applications based on information sciences and mathematical statistics. Contrary to conventional wisdom, they suggest the hypothesis that the decline in productive public services may be crucial in explaining the general decline in productivity growth and the trend towards stagnation which has recently affected many countries, and in which Italy has been the forerunner. Only a major revival of public capital, even in multi-national or transnational forms, can therefore save us from stagnation and respond to global challenges such as climate change, pandemics and the pervasive systemic risks of an increasingly hyper connected world.

An important and related issue, which figures prominently in the post Covid agenda, is thus how to prioritize and select the different forms of public capital to be provided and which investment programs to implement. This implies knowing how *public* capital affects economic systems, since there is some consensus that public capital represents the ‘wheels’, not the engine, of economic activity and that infrastructure investment, although necessary, alone is not sufficient to generate sustained increases in economic growth. This question represents the frontier of current research into economic policy and is essential to steer public capital expenditure towards more precise objectives of growth and sustainable development. Technological progress and the growing importance of global public goods also make other related issues particularly important for policymakers. These include further aspects of *how* public capital can influence economic growth in the new context of value chains and economic agents in a growing hyper-connected dimensions of global infrastructure: (i) the network interdependence of infrastructure services; (ii) infrastructure-related economies of scale, which attract enterprises and factors of production and, as a result, increase production; (iii) a new generation of “intelligent” public infrastructure incorporating technological progress and providing feedback to research and planning, (iv) the role of human and natural capital and the growing importance of the Bioeconomy as a major field of public capital provision, from biotechnology to the different forms of green and blue economy. Most of these effects are quantitatively unknown, but can be empirically measurable by monitoring the efficiency of new and old forms of public capital through cost-benefit and impact analysis of programs and projects if these practices themselves become part of public investment policies. In this respect, the crucial challenge facing economic research is the inherent difficulty of identifying changes clearly attributable to the different characteristics of public investment in macroeconomic data and also of following its dynamic effects over time.

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European Growth Prospects After Covid-19



Dominick Salvatore

1 Introduction

What are Europe's growth prospects after Covid-19? Will Europe grow more rapidly after the 2020 recession than after the 2009 recession? Will it match or surpass U.S. growth during this decade or will European growth be as anemic as in the previous decade?

This paper examines the reasons that European growth during this decade is likely to be faster than during the previous decade but not as fast as expected or hoped and still not match U.S. growth (which, itself, it may not be as fast as forecasted or anticipated in this decade).

2 Slow European Economic Recovery and Growth After the 2009 Recession

Table 1 shows that the 2020 Covid-19 recession was much deeper than the 2009 "great recession", except for Germany. Table 1 also shows that despite powerful traditional and non-traditional (QE) expansionary monetary and fiscal policies, the economic recovery and growth from 2010 to 2019 were slow in all advanced nations, averaging 2.1% in the United States, 1.4% in the EU-19 or Euro Area, 1.9% in the United Kingdom, 1.3% in Japan, and 2.3% in Canada.

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Table 1 Average annual % growth of real GDP in major advanced countries, 2009–2022

Nation/Area	Yearly average				
	2009	2010–2019	2020	2021 ^a	2022 ^a
USA	−2.8	2.1	−3.4	6.0	5.2
EU-19	−4.5	1.4	−6.3	5.0	4.3
Germany	−5.6	1.9	−4.6	3.1	4.6
France	−2.9	1.4	−8.0	6.3	3.9
Italy	−5.5	0.3	−8.9	5.8	4.2
Spain	−3.6	1.0	−10.8	5.7	6.4
U.K.	−4.3	1.9	−9.8	6.8	5.0
JAPAN	−5.4	1.3	−4.6	2.4	3.2
CANADA	−2.9	2.3	−5.3	5.7	4.9

Source: IMF, *World Economic Outlook*, October 2020/2021a

^aProjections

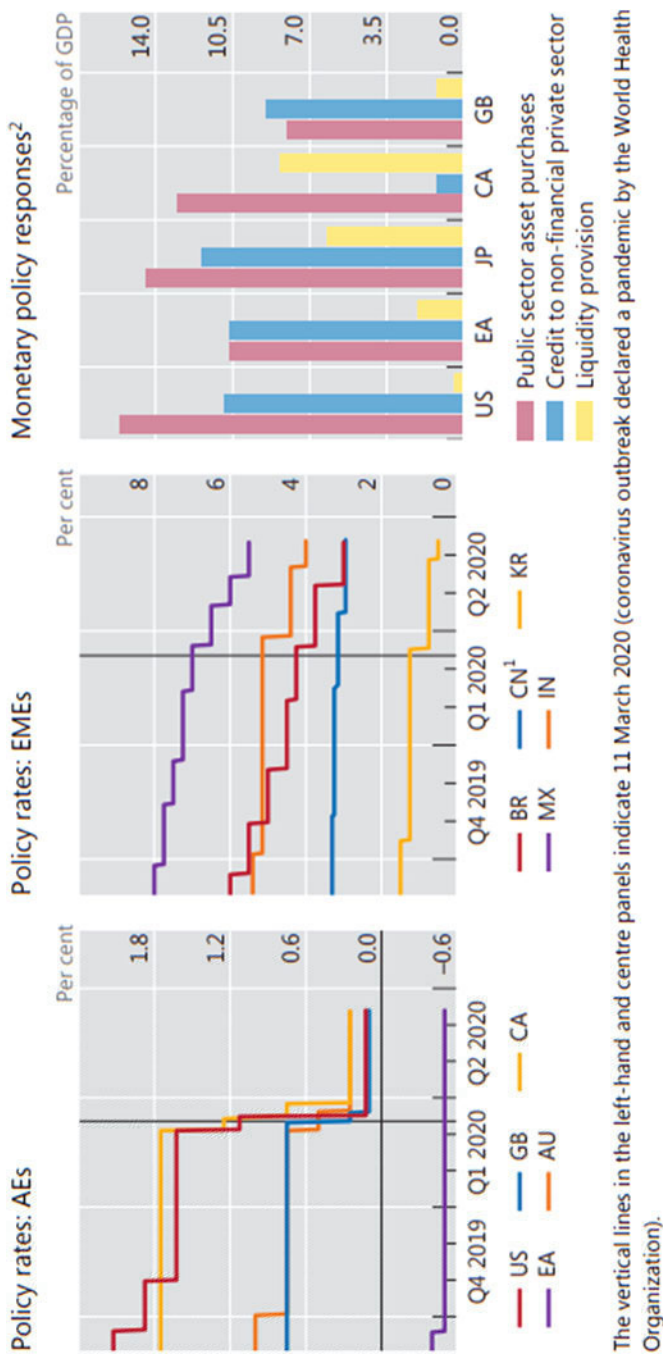
Figure 1 and Tables 2 and 3 show that advanced nations used very powerful monetary and fiscal policies to combat the previous and the current recessions. Figure 1 shows that in March 2020 nominal policy rates approached zero in advanced economies (became negative in the Euro Area) and liquidity was also increased significantly. Tables 2 and 3 show that budget deficits and debts greatly increased in 2009 and 2020, especially in the United States.

In today's interdependent and high globalized world, the growth of Europe and the United States also depends on the growth of other large economies, Table 4 shows that the 2020 recession was much deeper than the previous one in the emerging markets in the G20 countries, except for Russia and Turkey, while China grew much less while India went from growth to deep recession.

3 The U.S. Has Grown Faster Than the EU and the Euro Area During the Past Two Decades

Figure 2 shows that taking the real GDP on the United States, the European Union (excluding Britain) and the Euro Area as 100 in 2000, the United States grew somewhat faster than the European Union and the Euro Area until 2011, but then the U.S. growth gap vis-à-vis Europe widened after 2011, especially with respect to the Euro Area. The Euro Area grew less than the European Union since some of the small European countries, not members of the Euro Area, grew faster than some Euro-Area members.

One important reasons for the U.S. growing more rapidly than Europe since 2000 and especially after the 2009 recession (and even more after the 2020 recession), is that the U.S. provided a more massive fiscal stimulus to its economy than Europe to overcome each of the last recessions. As indicated in Table 2, the U.S. budget deficit was more than double that of the Euro Area in most years since 2007, and it exceeded 13% of GDP in 2009 and nearly 15% in 2020 as compared 6.3% and 7.2%



The vertical lines in the left-hand and centre panels indicate 11 March 2020 (coronavirus outbreak declared a pandemic by the World Health Organization).

¹ Medium-term lending facility, one-year rate. ² Projected maximum support during March–December 2020, based on official announcements. See Cavallino and De Fiore (2020).

Fig. 1 Primary policy rates and monetary policy responses, Q4 2019 to Q2 2020

Table 2 Budget deficits as percentage of GDP in major advanced countries, 2007–2021

Nation/Area	2007	2009	2011	2015	2019	2020	2021 ^a
USA	−2.9	−13.1	−9.7	−3.5	−5.7	−14.9	−10.8
Euro Area	−0.6	−6.3	−4.2	−2.0	−0.6	−7.2	−7.7
Germany	0.2	−3.2	−0.9	1.0	1.5	−4.3	−6.8
France	−2.5	−7.2	−5.2	−3.6	−3.1	−9.2	−8.9
Italy	−1.5	−5.3	−3.6	−2.6	−1.6	−9.5	−10.2
Spain	2.0	−11.0	−9.7	−5.2	−2.9	−11.0	−8.6
U.K.	−2.9	−10.2	−7.5	−4.5	−2.3	−12.5	−11.9
Japan	−2.1	−9.8	−9.4	−3.9	−3.1	−10.3	−9.0
Canada	118	−3.9	−3.3	−0.1	0.5	−10.9	−7.5

Source: IMF, *Fiscal Monitor*, October 2020/2021b

^aEstimate

Table 3 Government debt as percentage of GDP in major advanced countries, 2007–2021

Nation/Area	2007	2009	2011	2015	2019	2020	2021 ^a
United States	64.0	87.0	99.8	104.9	108.5	133.9	133.3
Euro Area	64.9	78.4	87.7	90.9	83.7	97.5	98.9
Germany	63.6	72.6	79.8	72.3	59.2	69.1	72.5
France	64.4	82.9	87.8	95.6	97.6	115.1	115.8
Italy	99.8	112.5	119.7	135.3	134.6	155.8	154.8
Spain	35.5	52.7	69.9	99.3	95.5	119.9	120.2
United Kingdom	42.2	64.1	80.1	86.7	85.2	104.5	108.5
Japan	183.0	201.0	221.9	228.4	235.4	254.1	256.9
Canada	66.8	79.3	81.8	91.2	86.8	117.5	109.9

Source: IMF, *Fiscal Monitor*, October 2020/2021b

^aEstimate

Table 4 BRICS and other emerging markets in G20: percentage growth of real GDP, 2009–2022

Nation	2009	2010–2019	2020	2021 ^a	2022 ^a
China	9.2	7.6	2.3	8.0	5.6
India	8.5	6.9	−7.3	9.5	8.5
Russia	−7.8	1.9	−3.0	4.7	2.9
Brazil	−0.1	0.6	−4.1	5.2	1.5
S. Africa	−1.5	1.7	−6.4	5.0	2.2
Korea	0.7	3.3	0.9	4.3	3.3
Indonesia	4.7	5.5	−2.1	3.2	5.9
Mexico	−4.7	2.8	−8.3	6.2	4.0
Argentina	−5.9	1.4	−9.9	7.5	2.5
Turkey	−4.7	6.4	1.8	9.0	3.3
S. Arabia	−2.1	3.8	−4.1	2.8	4.8

Source: IMF, *World Economic Outlook*, October 2020/2021a

^aProjections

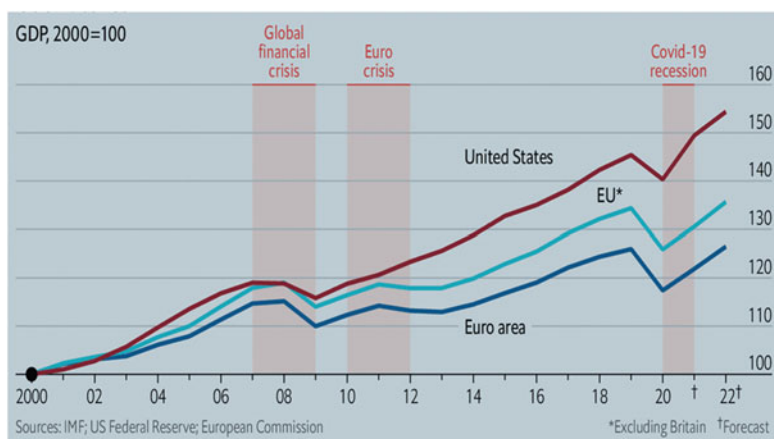


Fig. 2 The growth of the U.S., EU and Euro area since the year 2000. *Source: The Economist*, March 3, 2021. <https://www.economist.com/finance-and-economics/2021/03/31/what-if-europes-fiscal-largesse-were-as-generous-as-americas>

in the Euro Area! Table 3 shows that U.S. debt as percentage of GDP of 87% was only slightly higher than in the Euro Area in 2009, but it was almost 134% in 2020 while remaining below 100% in the Euro Area. Figure 1 shows that with a negative policy rate, traditional monetary policy was much stronger in the Euro Area than in the United States, but at that point traditional monetary policy had lost most of its efficacy (and U.S. non-traditional monetary policy was somewhat stronger in 2020).

Figure 3 shows that the massive \$1.9 trillion fiscal stimulus that the U.S. provided its economy in March 2021 almost doubled the forecasted the U.S. growth rate for 2021, with significant positive spillover to other countries. Figure 4 then shows the IMF estimated the additional fiscal stimulus required by Europe to practically close its growth gap with the United States by 2022.

4 The Fundamental Reason Europe Grew Slower Than U.S. During Past Two Decades

Table 5 shows that the slower growth of real GDP in the Euro Area and the European Union in relation to the United States reflects Europe's slower growth of labor productivity and total factor productivity. The table shows that from 2000 to 2007, the average yearly growth of real GDP was 2.7% in the United States as compared with 2.3% in the Euro Area and 2.5% in the European Union of 27 (EU-27). From 2008 to 2019, comparable figures in percentages were, respectively, 1.8, 0.6 and 1.0. Thus, the growth of real GDP declined sharply in the United States, the Euro Area and EU-27 after 2007, but it remained lower in the Euro

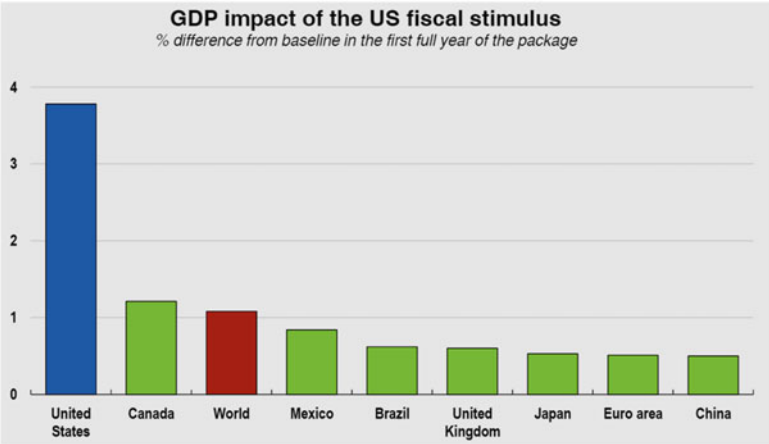


Fig. 3 Forecasted U.S. and world growth effect of the March 2021 U.S. Fiscal stimulus. *Source:* OECD, *Interim Economic Outlook*, 2021

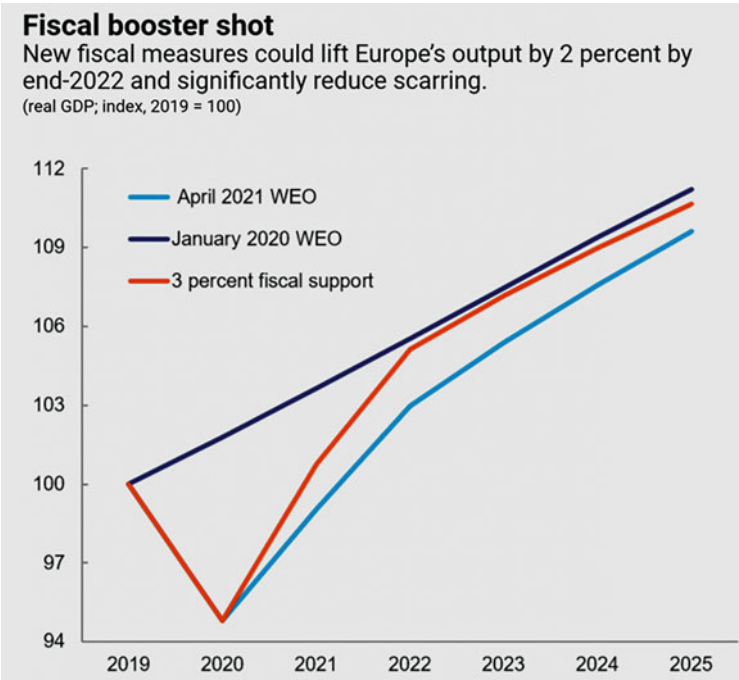


Fig. 4 Additional fiscal stimulus for Europe to close its growth gap with U.S. by 2022. *Source:* IMF, *Regional Economic Outlook*, April 2021c

Table 5 Average growth (%) of real GDP, labor productivity, and total factor productivity in the United States, Euro Area, and Europe Union of 27, 2000–2021

	United States	Euro Area	EU-27
<i>Real GDP</i>			
2000–2007	2.7	2.3	2.5
2008–2019	1.8	0.6	1.0
2019	2.3	1.5	1.9
2020	−3.4	−6.9	−6.3
2021 (Forecast)	6.0	4.5	4.7
<i>Labor productivity</i>			
2000–2007	2.2	1.3	1.9
2008–2019	1.2	0.6	1.0
2019	1.2	0.6	1.2
2020	2.6	1.0	0.2
2021 (Forecast)	2.3	0.8	1.6
<i>Total factor productivity</i>			
2000–2007	1.0	0.0	0.2
2008–2019	0.2	−0.2	−0.4
2019	0.7	−0.5	−0.2
2020	−0.6	−3.7	−3.8
2021 (Forecast)	2.5	1.3	1.6

Conference Board (2019 and 2021), *Total Economy Database*, New York (August)

Area and EU-27 than in the United States. Comparable figures (in percentages) for labor productivity growth were, respectively, 2.2, 1.3 and 1.9 for 2000–2007 and 1.2, 0.6, and 1.0 for 2008–2019. Even more importantly, the growth of total factor productivity (TFP—the increase in output over and above the increase in labor and capital used in production) were, respectively, 1.0, 0.0 and 0.2 for 2000–2007, and 0.2, −0.2 and −0.4 for 2008–2019. The detailed data also shows that there were major differences in the growth of labor productivity and total factor productivity among the major Euro Area countries, Japan and the United States, but even Germany, the best performer of the Euro Area, did not perform as well as the United States.

The slow growth of labor productivity and total factor productivity in the Euro Area led to its low international competitiveness and growth of real GDP in relation to the United States. Most of the Europe’s lower of international competitiveness has been attributed to overregulation and over-taxation, which discouraged innovations and reduced efficiency (Salvatore, 1998, 2004, 2015). An overview of the competitiveness problem that the Europe Area faces vis-à-vis the United States is summarized by the much lower ranking than the United States on the World Bank (2020) index on “Ease of Doing Business”. The index includes the 12 specific measurements or indicators, among which: starting a business, getting construction permits, getting credit, protecting minority investors, enforcing contracts, and employing workers. The data shows that it was more than seven times easier to do business in the United States than in the Euro Area. The data also shows

Table 6 Ease of doing business and International Competitiveness for the G-7 Countries and Spain in 2020 (Indices 0–100)

Country	Ease of doing business	Intern. competitiveness
United States	84.0	89.6
United Kingdom	83.5	81.5
Germany	79.7	86.5
Canada	79.6	87.0
Japan	78.0	69.7
Spain	77.9	63.7
France	76.8	72.5
Italy	72.9	63.1

Source: World Bank (2020), *Ease of Doing Business*, Washington D.C. and IMD (2021), *International Competitiveness Yearbook*, Lausanne

that there is a high positive correlation between the ease of doing business in a nation and its international competitiveness, and finally that there is then a positive exponential correlation between the international competitiveness of the nation and its per capita GDP (see Salvatore, 2017). In other words, the easier it is to do business in a nation, the greater is its international competitiveness and the higher is its per capita income. Since the Euro Area ranks much lower than the United States in the ease of doing business, its international competitiveness is lower, and so is its real per capita income relative to the United States. Thus, the way for the Euro Area and Europe to increase its growth is by deregulating economic activities (i.e., making it easier to do business). This would increase international competitiveness and lead to higher real per capita income and growth.

Table 6 shows the latest data on doing business and international competitiveness of the G-7 countries and Spain in 2020. Indeed, the rank correlation between the ease of doing business and the international competitiveness for these largest advanced nations in 2020 was 83.3. Of course, correlation does not establish causality, but economic theory postulates (explains) how the lower ease of doing business leads to less international competitiveness of the nation—and how the latter leads to lower total labor productivity and total factor productivity, and hence to lower national growth.

5 Growth Prospects for Europe After the Pandemic

The EU has been worryingly aware its competitiveness and growth problems since 1990 and so in 2000 it launched the Lisbon Strategy or Agenda (European Council, 2000), with the specific aim of making Europe “the most competitive and the most knowledge-based economy in the world by 2010”. The goal, however, was not achieved. To be sure, most nations of the world grew much more slowly in the 2000–2010 decade than in the previous decade after the global financial crisis, but

as we have seen in Fig. 2, Europe grew more slowly than the United States, and so its growth gap with the United States persisted and even grew.

Because of this, the European Commission (2014) introduced the Europe 2020 agenda *Horizon 2020*. This was a seven-point program with nearly 80 billion euros in funding for making Europe “the best place in the world to innovate”—and also to increase industry’s share of GDP from the 15% to 20% from 2014 to 2020. The EU subsequently introduced the Juncker Investment Plan in December 2014, the Single Market Strategy in May 2015, and the Five Presidents’ Report in July 2015—all aimed at increasing investments and innovations in the EU in order to increase its international competitiveness and speed up its growth.

All of these plans, however, seemed more statements of intentions and often led even to more regulations in the process of being implemented. In fact, as shown in Table 1, Europe’s (and the U.S.) growth was rather anemic between 2020 and 2019 relative to the previous decade primarily because of the slowdown in the growth of labor productivity on both sides of the Atlantic, but also because of aging of population and the slowdown in the growth of international trade. Those growth-slowng factors or conditions persisted even before the pandemic (see Salvatore, 2020) and remain even today)—*and, it is in this context or background that the new EU programs to stimulate growth must evaluated in terms of their likely effectiveness and success.*

6 Programs to Stimulate European Growth and Deal with Climate Change

All European countries drew up plans to promote recovery from the pandemic recession, accelerate growth, and deal with the climate crisis. Although national plans and programs differed in detail, they all stressed digitalization of the economy and the green economy—as indicated in Fig. 5 (which shows the national plans for spending EU recovery funds submitted to the EU in April 2021 by the four largest countries). There were, of course, other national funds for these and other purposes, especially infrastructures, education, health, social inclusion, and welfare.

Investing technological innovation and digital transition by improving education and digital skills) is crucial in order to increase labor and total factor productivity (TFP). We know from growth theory that economic growth can be stimulated by increasing infrastructure investments and Total Factor Productivity (with more education, higher labor productivity, more R&D, and better regulations) and yet as I have written (2021) growth remained anemic over the past decade. Of course, most nations plan to redouble their efforts to stimulate labor productivity and TFP, especially now in order to recover from the recent deep recession by speeding the adoption of new and more productive technologies.

However, as pointed out by Acemoglu (2021), “The next phase of automation, relying as it does on AI and AI-powered machines such as self-driving cars, may

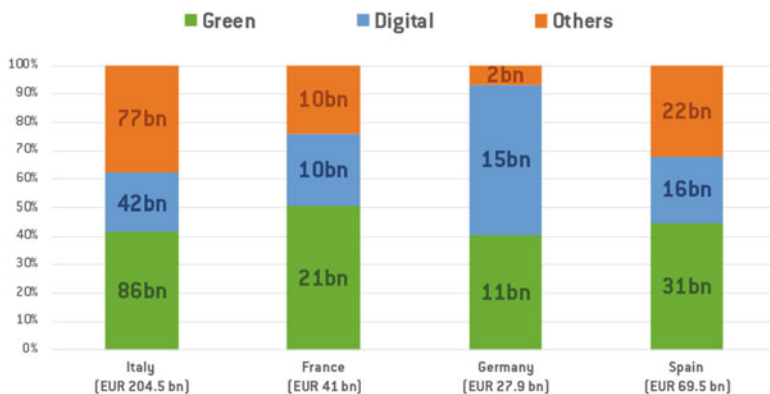


Fig. 5 Setting Europe's economic recovery in motion: plans for spending EU recovery funds submitted by the four largest countries. *Source:* Darvas and Tagliapietra (2021)

be even more disruptive, especially if it is not accompanied by other types of more labor-friendly technologies. This broad technological platform, with diverse applications and great promise, could help human productivity and usher in new human tasks and competencies in education, health care, engineering, manufacturing, and elsewhere. But it could also worsen job losses and economic disruption if applied exclusively for automation.”

Furthermore, Dewan and Ernst (2020) point out that “The global pandemic caused millions of people to lose their jobs and is widening the gap between white-collar workers, who can work from home, and those who don’t have the skills or resources to participate in a digitally-driven economy.” We can add that more rapid application of new technologies, while they may increase labor productivity over the years, is now also seriously increasing inequalities within both advanced and developing nations, and between them.

In short, investing in technological innovation and digital transition is as crucial for stimulating future economic growth as it is to succeed. Europe tried this before without success and many of the same obstacles to growth remain and became even more intense, such as the more rapid aging of the population, the deeper and more serious international political and trade disagreements, and especially the more dramatic climate crisis (WTO Secretariat, 2020).

Turning to climate crisis, it is clear that time is running out to avoid a catastrophic climate change, the EU is stepping up its efforts to decarbonize Europe’s economy. In fact, in October 2021 the EU launched its “Fit For 55” package of measures to cut carbon emissions 55% below 1990 levels by 2030, on the way to net zero at mid-century. Europe should be commended for taking the initiative and world leadership in undertaking this truly gigantic, but absolutely necessary, task.

But there are some major obstacles to carry the program out and achieve the “Fit For 55” goal.

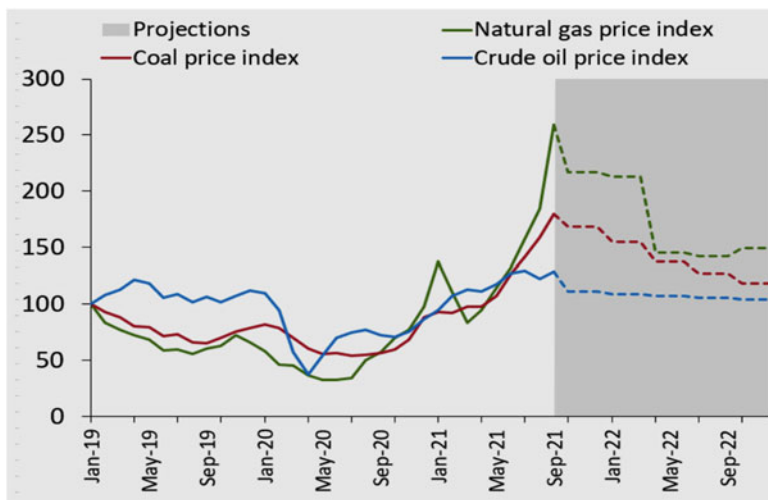


Fig. 6 Surging energy prices may not ease until next year (price indices: 1990 = 100). *Source:* IMF (2021d, July)

For one thing, trying to go from fossil fuel to green energy rather quickly is turning out to be extremely costly. As shown in Fig. 6, the price natural gas has more than doubled and the price of coal has increased by more than 50% in the first 9 months of 2021—even though the expectation is that these prices will moderate in 2022, this may not actually occur. In the meantime, costs of production and inflation are rising very rapidly, discouraging production and growth, and may lead central banks to raise interest rates, which may trigger a new financial crisis and recession (Institute of International Finance, 2020).

Then there is the problem of explicit free-riders and nations that will not honor their climate agreements. Figure 7 shows the dramatic extent by which CO₂ emissions by China and India have increased since 1990, while remaining constant in the United States and even declining in Europe and Eurasia. So, if some major polluters do not play their part or do not hold or respect to their commitment under climate agreements, they will nullify most of the efforts made by other nations and also gain a competitive advantage on other nations by having lower energy costs. For example, in 2021, China and India (now the world's two largest polluters) continued to build a large number of coal-fired power plants despite their promise to cut CO₂ emissions by 2030, thus jeopardizing both their decarbonization plans and global efforts to deal with the climate crisis (Standaert, 2021). Thus, while moving to a green economy is a must, it will lead to higher energy costs, at least in the short run, and it may be difficult for the world to achieve its climate goals.

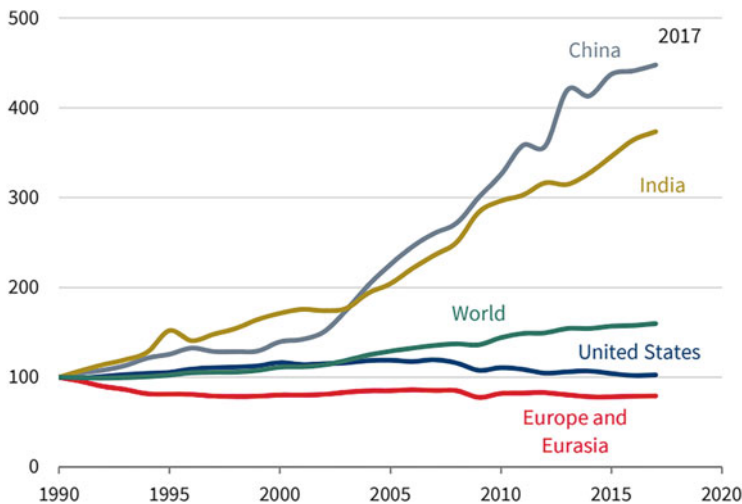


Fig. 7 Annual world carbon dioxide emissions, 1990–2017 (CO₂ emission index: 1990 = 100).
 Source: Council of Economic Advisors, *Economic Report of the President*, March, 2019

7 Concluding Remarks

In projecting economic world growth in this decade it is important to keep in mind that some of the factors responsible for anemic growth on both sides of the Atlantic (and also in most of the rest of the world) during the past decade are still operating in this decade (and some, such as the aging populations, is even accelerating).

It is true also that new technologies offer tremendous opportunities to increase labor and total factor productivity, but they may also prove more disruptive by also leading to more job losses and higher wage and income inequalities than in the past—and thus contribute less to economic growth than otherwise. In addition, while moving to a green economy is an existential must, that may be more costly and difficult to achieve than thought and contribute less to growth than commonly thought. Thus, future economic growth may be slower than expected and hoped.

Finally, future European growth may match or surpass U.S. growth in this decade, more as a result of slower U.S. growth to than as result of faster European growth than in the past!

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