

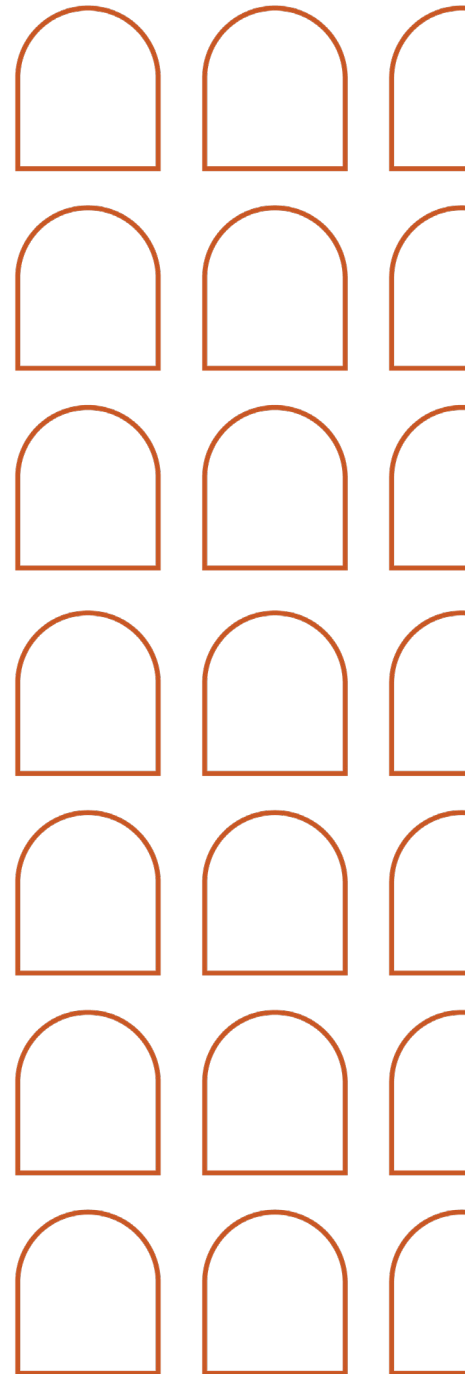
STG Policy Papers

# POLICY ANALYSIS

**TOWARDS A NEW INTERNATIONAL  
ECONOMIC GOVERNANCE:  
THE POSSIBLE ROLE OF EUROPE**

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## EXECUTIVE SUMMARY

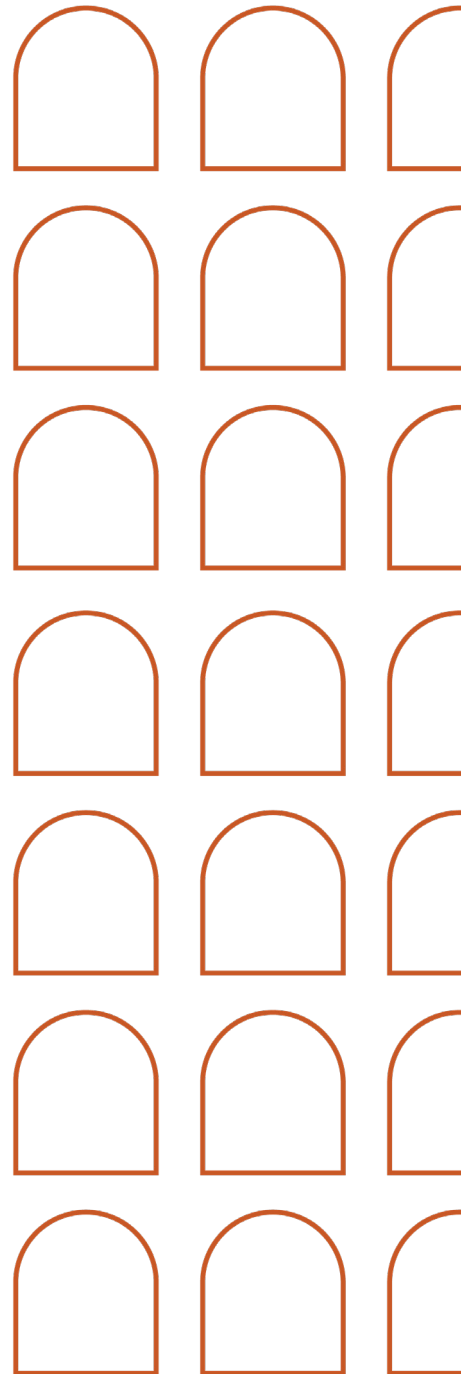
Multilateralism, which prevailed until the global financial crisis and survived until the middle of the 2010 decade, has become a chimera. The economic rivalry between the USA and China, which focuses on technological competition, cannot be overcome and is likely to intensify in the post-pandemic period. This does not mean that Europe must accept zero- or negative-sum solutions in the new global economic governance. Our paper aims to show that the European Union (EU) could play an active role, if it was able to reduce its technological gap towards the other two areas and to enhance its comparative advantages. In this respect, the triangular game between the USA, China and the EU is defined by the interrelationship between the sustainability of the development model and technological leadership. Within these coordinates, the EU can offer a 'focal point' for international economic governance conditional to its capacity to become an 'attractor' in terms of environmental and social sustainability, to correct its distortionary dependence on external demand, and to recover its main delays in innovative technologies. In order to achieve such complex results, the 'sine qua non' condition is that the European Union ensures full coherence between its geopolitical aspirations and its internal agenda.

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# 1. INTRODUCTION

Globalisation, a term utilised to understand the trend of unification of international markets, expanded rapidly in the years preceding the global financial crisis (2007-2009), reaching its peak around the middle of the 2010 decade. . Despite this trend, globalisation has long since accumulated a large number of significant economic, political-institutional, environmental and social imbalances. Empirical evidence shows – for example – that information and communication technologies (ICT) and, further, digital innovations have stretched and extended the international value chains since the beginning of the new century. As evidenced by the ‘real’ aspects of the 2007-2009 global crisis, this lengthening has weakened the effectiveness and efficiency of organisational controls on production processes by the firms closest to the final markets or with a stronger position in the innovative hubs of given international chains. This element of fragility increased during the pandemic shock of early 2020, causing a disruption in supranational production processes. Moreover, after the ongoing economic recovery and the recent US initiative in the Pacific, major changes in social, environmental, and geopolitical relations will occur. These changes will lead to new and further structural difficulties in international economic relations. Although during the second quarter of 2021, productive rebounds and the temporary impact on prices due to bottlenecks in the supply of intermediate goods and raw materials produced new peaks in the nominal value of international trade. The new factors go beyond the economic terrain, although they are destined to exert a strong influence on it.

In what follows, we will not enter into such general and complex issues.<sup>1</sup> The purpose of the paper is consciously partial, in that it is limited to addressing two economic issues and makes only few hints on the possible interrelations of these issues with crucial geopolitical variables. First of all, we wonder whether, as the old multilateralism has disappeared without clear indications of a new international economic order, the productive system of the EU is in a position to acquire significant roles in the difficult international economic transition. Based on the – perhaps optimistic, but arguably – positive response to the previous question, we then discuss how to combine the resulting external and internal agendas of the EU to pursue this result. It should be stressed that, in this perspective, the appropriate implementation of the ‘Next Generation – EU’ (NGEU) and its most important programme, the ‘Recovery and Resilience Facility’ (RRF), becomes extremely important.

Our analysis begins with a brief examination of the economic reasons which make the crisis of the old multilateralism irreversible, at least in the current decade (see section 2). This crisis leaves an immediate negative legacy (see section 3). In addition, it brings to light the growing longer-term tensions that will characterise relations between the main international economic areas, here reduced to three: USA, China, and the EU (see section 4). Europe has accumulated weaknesses and strengths vis-à-vis its two competitors (see section 5). Where the EU and – in particular – its most consolidated core, the euro area, were able to mitigate their serious technological lags towards the USA and China by exploiting their elements of comparative advantage (environmental transition, welfare state, regulation), this would open up possibilities to build new international economic settings (see section 6). A structural aspect of the near future will be a growing conflict between the USA and China. The EU could positively influence the economic and social evolution of these two competing areas, without weakening its membership of the Atlantic Pact (see section 7). However, as mentioned above, in order to exploit such an opportunity, European international strategies must be based on an effective internal agenda, which in turn must rely on the new centralised fiscal policy made possible by the launch of NGEU (see section 8). The conclusions summarise our analysis and draw some economic policy implications.

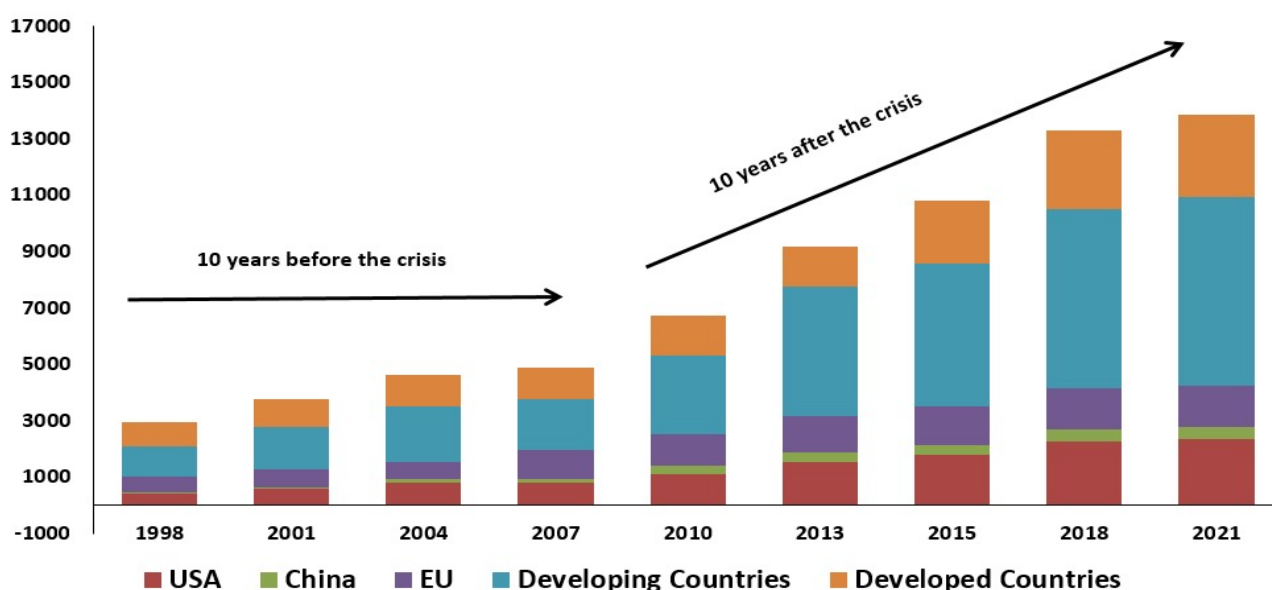
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<sup>1</sup> Hence, we will neglect important events that are threatening the geopolitical stability. In this respect, no reference will be made – on the Chinese side – to events such as the full annexation of Hong-Kong, the violations of the Taiwan airspace, the tensions at the Indian borders, the persecution of minorities; and, on the US side, to the immigration policy. Moreover, we will address in a sketchy way more recent events such as the case of Afghanistan or the new military cooperation between the USA, UK and Australia (the so-called AUKUS). All these aspects appear incompatible with a balanced multilateralism even in the economic domain. However, their analyses are outside the scope of the paper and would require a different expertise by the authors.

## 2. THE ECONOMIC END OF THE OLD MULTILATERALISM

The elements of fragility of the international economic order, mentioned above, have meant that, even in the years of its greatest expansion, globalisation has been accompanied by a search for increasing institutional protection by firms in the major economic areas. This led to progressive increases in restrictive measures in international trade, which accelerated after the global financial and ‘real’ crises and – in any case – before the crisis of multilateralism (see Figure 1). Up to the emerging Chinese leadership on innovative strategic frontiers (particularly, in sectors of artificial intelligence) and the advent of Trump Administration, these restrictions were, however, compatible with the search for multilateral equilibria for a set of fundamental reasons.

**Figure 1. Total Number of Trade Restrictive Measures in force**



Source: WTO

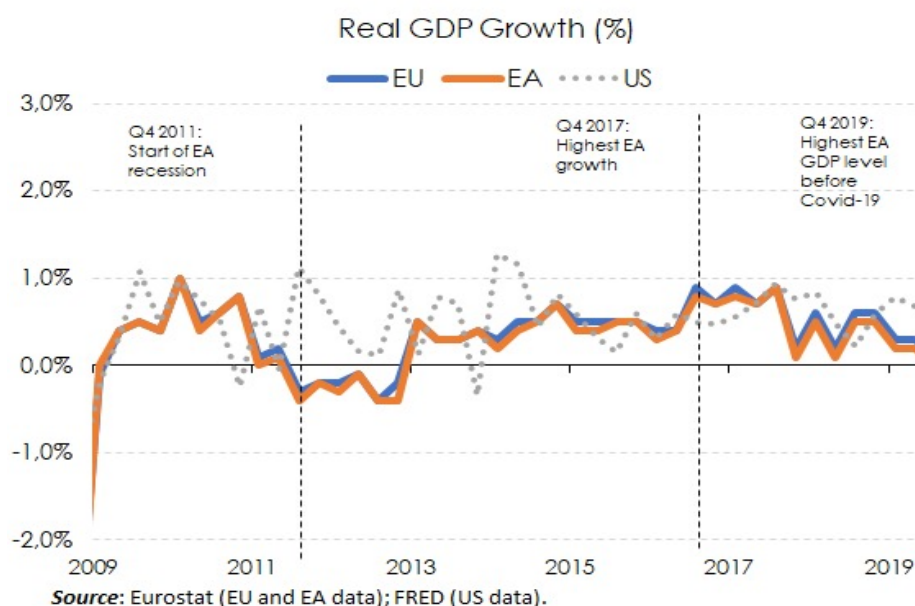
In the years preceding the global financial crisis of 2007-2009, China still needed the push from international trade to implement its full transition from a traditional economic system (based on the accumulation of capital goods and low labour costs, and driven by imitations of goods conceived and produced elsewhere and by net exports), to an economic and social organisation that can compete thanks to leading positions in innovative frontiers and to the exploitation of its (potentially huge) domestic market. From 2009 onwards, the EU and – in particular – the euro area increased the dependence of their economic growth on net exports so as to absorb the negative gaps between investment and aggregate savings driven by the ageing population and the associated allocation of financial wealth.<sup>2</sup> The driving force of net exports outside European markets also absorbed some of the most negative effects of restrictive fiscal policies and temporarily shored up the traditional economic governance framework of the euro area (see Esposito and Messori, 2018; Messori, 2021). Thus, the EU’s and euro area’s economic prosperity depended on continuous growth in international trade. Finally, the USA, which had to accept persistent current account deficits to carry out their role of international consumer of ‘last resort’, used globalisation to stimulate investment in the most innovative sectors, to ensure the centrality of domestic consumption and to flatten the ‘Phillips curve’ – i.e. to weaken the links between high rates of economic growth, lower unemployment rates and wage dynamics.<sup>3</sup>

<sup>2</sup> The accumulation of wealth in the hands of the elderly population helps explain why, in the euro area more than elsewhere, recent economic crises and the related increase in economic-institutional uncertainty have led to drastic increases in the incidence of the most liquid components of financial portfolios and have slowed the overcoming of the dominant role played by banks (see, for example: Darvas and Schoenmaker, 2017; Kremer and Popov, 2018; and Messori, 2019). However, very prudent financial portfolios are not immediately compatible with the financing of productive activities and, in particular, of investments.

<sup>3</sup> Blanchard (2016) was among the first authors to emphasise the flattening of the ‘Phillips curve’. The mismatch between economic growth and the rise in medium-low incomes, which has been induced by globalisation and innovation processes and which has been particularly accentuated in the USA since the late 1980s, has been analysed by various authors. Among others, see Krugman (2008) and Stiglitz (2012).

As we already noted (see Figure 1), this search for multilateral equilibria had already manifested deep cracks at the end of the first decade of the new century. The 2007-2009 global crisis had, in fact, highlighted the big difficulties in harmonising, particularly in the USA, consumer sovereignty and the compression of households' income through the artificial construction of an 'owners' society' and a financial architecture characterised by very high risks.<sup>4</sup> Moreover, subsequent internal tensions in the Chinese economy and society revealed the complexity of the transition towards a strengthening of the domestic market. By the mid-2010, multilateralism had given way to openly conflicting relations. In fact, the accelerated disequilibria in its economy and society pushed China to strengthen the centrality of its state-owned firms and hindered its smooth transition to a ticker internal market and to the related productive re-organisation. Moreover, after the settlement of the new US administration, the Trumpian ideology of America first and the associated support to the most traditional components of national production became in open contrast with both Chinese evolution and persistent European mercantilism. The resulting tensions had undermined the recovery in international trade and made international value chains even more fragile.

**Figure 2: The US and European economic trends**



The fall-back of the euro area into economic stagnation (mid 2018-2019), after a few years of recovery from two recessions (2008-2009 and 2011-2013) (see Figure 2), can be – at least in part – interpreted as a signal that the conflicting bilateral relations, triggered by the Trump Presidency and fuelled by the Chinese economic and technological acceleration, but also by the European retreat, had irreversibly broken the old multilateral arrangements. It had become impossible to reconcile China's accelerated transition towards innovative productions with a big technological content and the expansion of its internal market, the European model based on effective forms of regulation and social protection but also on insufficient domestic demand and the associated need to increase net exports, and the US objective of increasing protection of its traditional production activities and of defending its (genuine or alleged) supremacy in innovation.

4 For an analysis of the financial fragilities revealed by the 2007-2009 crisis, see Brunnermeier (2009), and Adrian and Shin (2010).

### 3. THE NEGATIVE ECONOMIC LEGACY OF THE END OF MULTILATERALISM

Our argument is, therefore, that the multilateral interactions between the three main economic areas had come to a halt even before the pandemic. The growing divergence of interests has led each of these areas to raise their barriers to entry through increasing state intervention, and to conclude bilateral agreements with third areas and countries to replace the broken trilateral cooperation.

In the debate of the years straddling the pandemic, the argument that this was a reversible trend because it was subordinate to the temporary dominance of the Trumpian populism has often been put forward. It was argued that, in the post-Trump period, the USA would not have an interest in erasing the essential aspects of international economic cooperation with the associated risk of undermining its dominant geopolitical role (see Baldwin et al., 2020). However, the impact of the pandemic shock is strengthening the framework of “conflict bilateralism” and eroding any space for the re-establishment of the old multilateral balance. In addition to this, the tragic events in Afghanistan in the summer of 2021 that are set to change the balance of power in an area important for geopolitical equilibria, the recent US initiative to equip Australia with a stronger military force in an even more crucial area such as the Pacific, and the possible threatening moves of China towards Taiwan have shown how complex (i.e., non-mechanistic) the link between international relations and economic problems has become. These events show that China and the new US administration are ready to intensify their conflicting relations also on the economic ground.

As we have stressed, in this paper we do not intend to analyse the different aspects of globalisation or the interrelationships between geopolitical, social, and real economic variables. The previous sketchy considerations suffice to indicate that the international fractures in the health and social fields, inherited from the pandemic, are set to increase due to geopolitical growing conflicts.

During 2020 and 2021, the three economic areas failed to restore that minimal cooperation in the areas of health, artificial intelligence, telecommunications and logistics that would have been required to achieve two results: eradicating COVID-19 by protecting the poorest countries from the pandemic crisis and the richest countries from the negative externalities of contagion; and to co-manage deficiencies in the coordination of production phases organised on an international scale, by minimising supply-chain disruptions. Thus, despite the surprising success achieved in the creation of vaccines and the efficiency of the vaccination campaign in most European countries and in some states of the USA, today the strong global economic rebound appears vulnerable to a new wave of the pandemic originating in weak areas. Moreover, the economic recovery achieved first in China, then in the USA, and finally in the EU risks early slowdowns due to bottlenecks in the supply of raw materials and semi-finished products and stimulates distortive protections within individual areas.

These distortions are exacerbated by the fact that, by exploiting its rapid exit from the COVID-19 shock (it was the only large economic system with a positive rate of growth in 2020), China has anticipated competing areas with respect to innovative adaptations to the post-pandemic which has led to increases in export and, even more so, import flows. The US economic policy is trying to recover lost ground through ultra-expansive policies, which could lead to severe macroeconomic imbalances. Despite the European innovative and expansionary ‘policy mix’ (see Buti and Messori, 2021), a similar risk appears to be less present in the EU and the euro area.

The result is that we are not witnessing a mere intensification of the competition between the USA and China, and a European attempt to re-enter in the game. This competition tends to turn from a driving force for international growth to a defence tool of domestic economies, with the effect of exacerbating the bilateral technological conflict between the USA and China

and limiting the EU to an ancillary role. Although different from the previous administration, the Biden Presidency does not appear to be geared towards avoiding such a risk. Evidence of this has been the discussions at several international meetings held since the beginning of 2021 (including some in non-economic matters). On those occasions, the USA took positions of unilateral closure vis-à-vis China on international strategic issues, and then – with a good deal of paternalism – called for the EU support. If our previous sketchy considerations on geopolitical issues are correct, this trend may well be strengthened in the coming years.

There would be an opportunity to reverse the inertia and achieve new economic and social equilibria by using for this purpose the increased weight of the state in the economy, which plays a different role in the USA and the EU. In the post-pandemic period, there is a need for substantial public investment and public support for private investment; in addition, there is a need to correct those distributional inequalities within advanced economic areas that have been one of the worst outcomes of past multilateralism and which have been greatly exacerbated by the pandemic.<sup>5</sup> In this perspective, the new role of the state in the USA and the EU could also become a model for other areas or third countries. Conversely, if it stimulated the promotion of ‘champions’ in individual areas and thus strengthened the monopolistic positions within each of them, this same state intervention would eventually result in an aggravation of bilateral conflicts. Effective public intervention must not replace, but regulate and complete the functioning of the market in order to overcome its limits, increase overall economic efficiency and mitigate social imbalances.

#### 4. THE EU BETWEEN SUSTAINABILITY AND TECHNOLOGICAL DELAYS

Here it would be premature to speculate about the outcomes of the profound changes that the Biden Administration is trying to introduce into the US economy and society through public transfers in support of low incomes and through massive federal investment programmes. Or further to bet on the probability of success for NGEU, which is based on a substantial coordination of fiscal interventions with redistributive effects among EU member states. It would be even more problematic to assess the domestic and international economic and social effects of the complex and countered process of strengthening the Chinese domestic market. However, it is useful to compare the recent evolution in the relative position of the USA, China and the EU through two approaches: (1) the sustainability of the economic growth models of the three areas which is measured – in an aggregated form – by their respective environmental, social and economic sustainability; and (2) the relative technological strength of each of these areas.

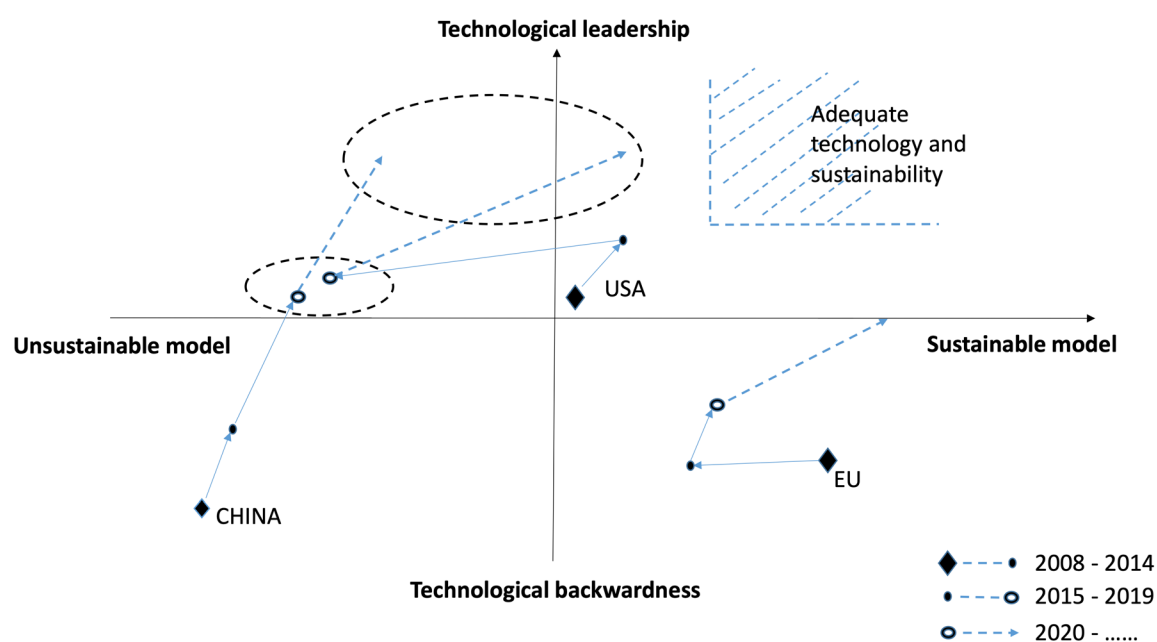
In this regard, Figure 3 provides a qualitative assessment of the evolution of the USA, China and the EU during three phases of the last 15-year period: the phase of the global financial crisis and the related European crises (2007/8-2014),<sup>6</sup> the phase immediately preceding the pandemic (2015-2019), and the current phase still marked by the impact of the pandemic but also projected towards a post-pandemic recovery (from the beginning of 2020 onwards).

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<sup>5</sup> Deaton (2013) offered one of the most lucid analyses of the dynamics of inequalities induced by the expansion of international trade. The formidable progress in many lagging areas does not, however, remove the strong polarisation in incomes in the USA and – to a lesser extent – in Europe as a result of globalisation and new technological innovation trajectories (see Bourguignon 2012). For an examination of the impact of COVID-19 on the distribution of income in various economic areas, see Darvas (2021) and Ferreira (2021).

<sup>6</sup> For simplicity, the threat of deflation, which materialised between the last months of 2013 and the Fall of 2014, is also incorporated in the period of European crises.

**Figure 3. USA, CHINA, and EU: their economic repositioning**



Source: Own development

In Figure 3, the position of China at the beginning of the global financial crisis is placed at the centre of the southwest quadrant. In those years, China’s technological lag relative to the USA and the EU was still substantial; moreover, the reduction of pollution and the loosening of social control towards workers and the entire population were not significant objectives, so that environmental and social sustainability parameters were very negative; finally, strong Chinese economic growth was still largely driven by high external surpluses, so that the sustainability of the Chinese economic model was also fragile (see section 6 below). During the first phase examined here (i.e. the years 2008-2014), China marked a significant progress in technological innovations and domestic policies that have been able to close the gap with the EU and to start a reduction of reliance on current account surpluses. However, those same Chinese progresses have also led to a tendency to erode the margins of US technological supremacy. At that same stage, the newly established Obama administration also tried to overcome the legacy of the 2007-2009 crisis, investing in digital innovations and trying to strengthen social cohesion (see the northeast quadrant of Figure 3). The latent conflict between the USA and China, which intensified in 2014-2015, also involved the EU. In addition to deteriorating its model of social sustainability<sup>7</sup> and suffering from an insufficient amount of investment (especially innovative investments), the EU and, above all, the euro area have increased the dependence of their economic growth on increasing current account surpluses (see the southeast quadrant).

As noted above (see section 2), the conflict between the USA and China escalated and became overt during the second phase examined here (2015-2019). Figure 3 succinctly gives an account of the reasons for this explicit conflict. The Trump administration’s choices to loosen environmental standards, to incentivise the polarisation in income distribution through costly and distortive tax reforms, to protect traditional domestic productions without getting major adjustments in negative trade imbalances led to a worsening of the US model in terms of both sustainability and technological potential. The position of the USA thus regressed to the northwest quadrant in a position not too far from the position reached by China in the meantime. Indeed, during the same years 2015-2019, China expanded and accelerated its progress in technological

<sup>7</sup> It is sufficient to recall the dramatic suffering of a large part of Greek population and the high social costs of the economic recession in other fragile countries of the euro area.



innovations, reduced positive current account surpluses and began to improve environmental sustainability. The result has been that China improved its sustainability model (although not compared to its social sustainability).<sup>8</sup> However, the positioning of China in the same quadrant as the USA accentuated their technological conflicts. At the same time, the EU made progress in the ecological transition and started to react to its technological backwardness; however, it paid insufficient attention to safeguarding its advanced social equilibria and it increased its current account surpluses (see the southeast quadrant of Figure 3). As a result, the EU has been relegated to the margins of technological competition, whilst fuelling imbalances in trade between the three areas.

The impact of the pandemic and the policy responses that came post-pandemic, signal new and important shifts in the positioning of the three areas with respect to the variables on the two axes of Figure 3. The radical changes, designed and initiated by the Biden Administration in terms of improving economic and social infrastructure and reducing environmental impacts, are bringing the USA back to the northeast quadrant by bettering the sustainability parameters of the area. Moreover, thanks mainly – but not only – to the launch of the NGEU, the EU itself is making substantial progress in terms of digital innovation and is restarting to strengthening its social model, undermined by the previous crises but still comparatively strong. The EU is also laying the foundations for a strengthening of its leadership on environmental sustainability. The result is that, for the first time, the EU tends to approach the northeast quadrant of Figure 3. This should not, however, exacerbate the elements of conflict with the USA as the EU’s technological lag is bound to remain significant. Moreover, the implementation of NGEU will strengthen the European market with positive effects on the rebalancing of the current account of the euro area. Conversely, Figure 3 highlights that the fundamental technological conflict between the USA and China is likely to intensify. China tends to take dominant positions on growing portions of the international frontier of technological innovation. This may improve China’s economic and environmental sustainability, but it will certainly worsen its relations with the USA.

## 5. THE POTENTIAL INTERNATIONAL OPPORTUNITIES OF THE EU

Figures 4a and 4b provide a more analytical and quantitative confirmation of the conclusions reached on the basis of Figure 3. The two new figures present a set of indicators relating to the production and utilization of technological innovations in the three areas during the years preceding the pandemic.<sup>9</sup> In particular, Figure 4a sets out a comparison of five indicators: (i) the availability of newly acquired technologies, assuming 2018 as the reference year; (ii) investment in the same timeframe in the most innovative technologies (digital, artificial intelligence, internet of things, 3D printers, etc.), which are referred to as “emerging technologies”; (iii) expenditure in computational software; (iv) applications of international patents; (v) density in the use of robotics. Figure 4b focuses on indicators that are related to the most advanced computing technologies (quantum computers). The comparison is in terms of: (vi) use of these computational systems of excellence, (vii) support provided in this respect by the state, and (viii) expected future revenues. Indicator (i) provides a relative measure of the average technological endowment of an area but does not focus on its innovative potential; instead, indicators (ii) and (iii) focus on an area’s efforts on investment at the frontier of innovation; and indicators (iv), (v) and (vi) assess the results obtained from these investments at the current innovative frontier or – as in the case of indicator (vi) – projected in the near future. Finally, indicators (vii) and (viii) seek to assess systemic efforts, dedicated to future innovations, and their expected performance.

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8 On the contrary, it could be argued that China’s first international progress coincided with backwardness in social protection.

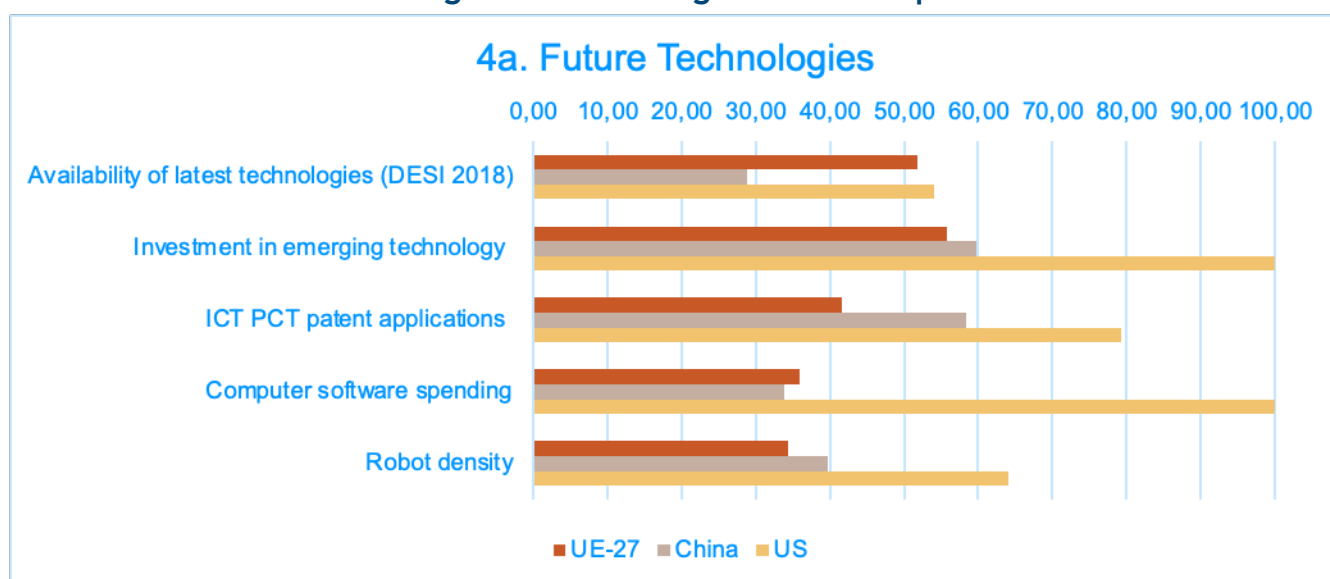
9 Upon request, a methodological note is available specifying the construction methods of each of the indicators used.

The position of the EU clearly shows its lags behind the USA and China both in digital technology and artificial intelligence already during the years preceding the outbreak of the pandemic. While it is true that in 2018 the average European technological endowment was – roughly – aligned with the US one and outpaced that of the Chinese, the EU lagged behind its two competitors (and, in particular, the USA) both in terms of innovative expenditure and – above all – in terms of results obtained.

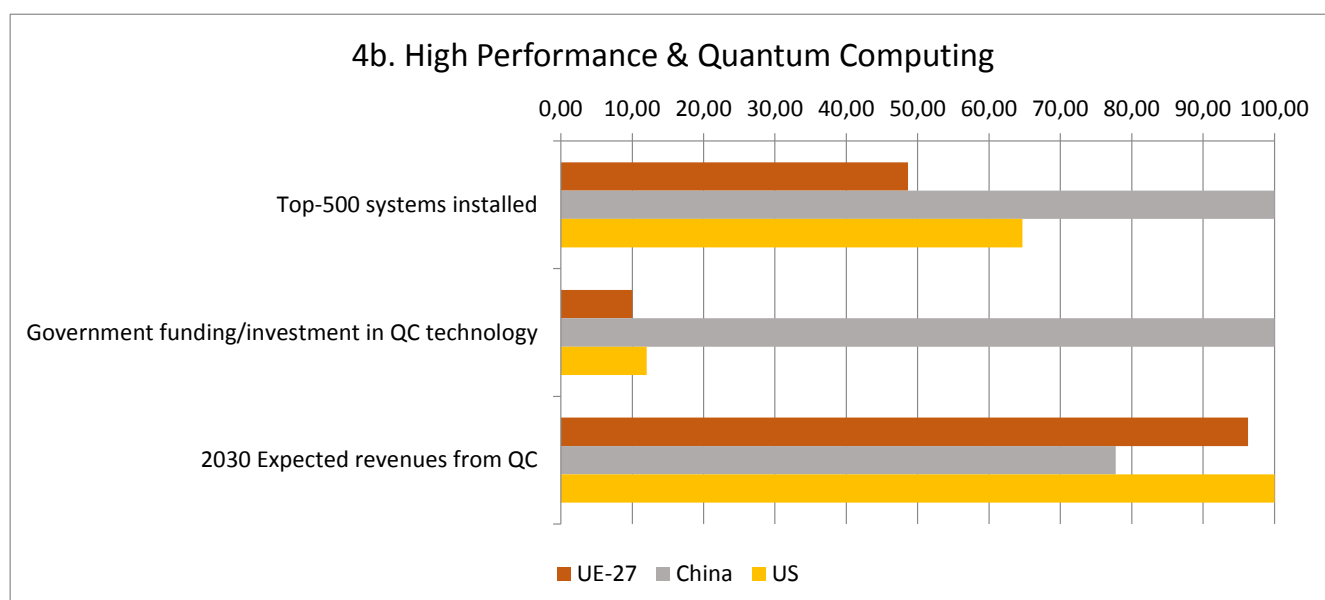
These negative results were particularly evident with regard to the expected innovative frontiers in the near future. In this regard, Chinese dominance (also over the USA) was based on government investment much stronger than elsewhere. However, it is perhaps even more significant to note the greater weight of public investment in the USA than in the EU. In this perspective, it is important that the President of the European Commission reiterated the support at EU level for the semiconductor sector in order to overcome the EU's dependence on Asian production (see von der Leyen, 2021). The forthcoming 'Chips Act' should work as a driver for other European initiatives in the field of digital innovation. Otherwise, the expectations of the EU in relation to the yields in 2030 (see Figure 4b above) will prove to be too optimistic even if the NGEU is fully successful.

Figures 4a and 4b emphasise above all the intensity of the Chinese effort, in the years preceding the pandemic, to undermine the increasingly narrow dominance of the USA on the frontiers of technological innovation. In particular, Figure 4b shows that China has decided to make a risky but forward-looking bet by investing substantial financial resources on specific innovative trajectories in the field of artificial intelligence; and the USA has been ready to react in order to defend its technological leadership. The confirmation of Chinese efforts and US responses provides quantitative feedback to the qualitative conclusions reached on the basis of Figure 3: the economic contrast between the USA and China depends mainly on technological factors that are irreversible over the medium term (the current decade). Both areas in fact aim to affirm their supremacy on international markets, basing it above all on present and future innovative advantages. As pointed out above (see section 2), this perspective is reinforced by the economic and social changes induced by the pandemic and strengthened by the post-pandemic recovery, by the controversial geopolitical reconfiguration stemming from the mentioned events and a re-proposition – albeit in a different and kinder form – of 'America first' by the Biden administration.

**Figure 4: Technological Leadership**



#### 4b. High Performance & Quantum Computing



Source: European Commission, DG CONNECT

The conclusions reached attribute a very low probability to the revival of the old multilateral economic balance. They do not imply, however, that the only alternative lies in the continuation of conflictual bilateralism. Notwithstanding the discontinuities that will characterise the post-pandemic economic systems in the areas examined here and the persistent centrality of the competitive challenge by the USA and China, the costs of this conflictual bilateralism would be too high to bear for all the players at stake.

Even in the new post-pandemic economic scenario there will remain a pervasive interdependence between transnational markets and a strong convenience of using international value chains, albeit restructured and reformed. The option of managing conflicts through the restoration of largely closed economic areas, characterised by the prevalence of relations within each system and by strong barriers to external relations, will therefore be dominated by the option of building political and institutional structures for globalisation, which may slow it down in order to make it manageable (see Antràs 2021). The fact remains that it is not easy to build shared foundations of international economic governance that are able to fit into the inevitable technological conflicts between the USA and China and create spaces for a more effective integration of international markets. It is a matter of preventing these conflicts from leading to self-fulfilling distortive choices generating negative externalities and market failures.

Theoretically, the problem has long been addressed in game theory (see, e.g. Fudenberg and Tirole, 1991). The impracticability of returning to the old multilateral equilibria amounts, albeit with various approximations, to the analytical difficulty of achieving cooperative results in dynamic non-cooperative games; yet this difficulty does not imply that the solution of the game necessarily leads to the selection of the worst equilibria induced by tit for tat behaviour, roughly similar to the distortive bilateral conflicts established between the USA and China during the Trump administration. It is often possible to find a better, second-best solution, which is potentially present in the structure of the game but that acts as an actual 'attractor' for the behaviour of the players only if variables, exogenous to the game, make this solution appealing. Schelling (1960) introduced the concept of 'focal point' in this regard; and Myerson (1991) provided an analytical basis for this concept (see also Kreps and Wilson, 1982). The identification of a 'focal point' can lead to a positive-sum solution, exceeding the zero- or negative-sum result that is typical of the current phase of growing conflict.

Continuing in the analogy between theoretical solutions and economic policy spaces, our thesis becomes the following: in the post-pandemic scenario, the EU could introduce 'attractors' to identify a 'focal point' for new international economic equilibria.

## 6. THE EU'S GOAL: STRIVING TO ESTABLISH A NEW 'FOCAL POINT'

To avoid playing an ancillary and largely passive role in the international economic governance framework, the EU (and, a fortiori, the other smaller international economic actors) should strive to avoid a conflictual bilateralism between the USA and China. The EU has two factors of relative strength to avoid this negative result. The first factor is based on the empirical evidence presented in Figure 4a: the instrumental endowment available in the EU, which ensures its international positioning in advanced technological spaces (e.g. precision mechanics, chemistry and pharmaceuticals) even if not at the innovative frontier with respect to digital and artificial intelligence. The second factor, which has already emerged in Figure 3, depends on European leadership in the environmental economy, regulation, state intervention and welfare state.

Table 1 substantiates the conclusions set out above. It attempts to articulate in quantitative terms the sustainability variable (environmental, social and macroeconomic) used on the horizontal axis of Figure 3. The comparison covers the three dimensions of sustainability in the USA, China and the EU in the years immediately preceding the pandemic shock.<sup>10</sup> In particular, the two indicators of social sustainability (variation of the Gini coefficient after tax and public benefits and the size of social spending) show the absolute predominance and relative effectiveness of European welfare. The result is not surprising: beyond the modest attempts made by the Clinton and Obama administrations and the announcements of the Biden administration (see also section 7 below), the welfare state has been – since the post-war period – a European prerogative (see Lindert, 2021). Similar predominance emerges from environmental sustainability data on CO2 emissions both in absolute terms and in terms of impact on GDP or population.

**Table 1: sustainability indicators**

	Social sustainability			Environmental sustainability				Macroeconomic sustainability	
	Difference between Gini coefficient before/after tax + benefits		Social spending / GDP	CO2 emission			Renewable energies / Total requirement	Imbalances in the current account / GDP	Labour productivity (average growth rate)
	Percentage points reduction	% change	Share of GDP	Billion metric tons	Per GDP	Per capita	Share in total consumption	Share of GDP	Per person employed
	2019 (US,CN), 2018 (EU)	2019 (US,CN), 2018 (EU)	2019 (EU), 2018 (US,CN)	2019	2019	2019	2019	avg. 2015-2020	avg. 2015-2020
<b>United States</b>	-13,7	-26,1	16,8	5,1	0,2	15,5	9,9	-2,3	1,3
<b>China</b>	-0,3	-0,7	11,0	11,5	0,5	8,1	16,4	1,6	6,0
<b>European Union</b>	-18,4	-38,5	26,3	3,3	0,1	6,5	19,7	3,2	0,0
	<b>Gini coefficient</b>			<b>CO2 emission</b>				<b>CA imbalances</b>	
<b>Sources</b>	The Standardized World Income Inequality Database (SWIID), <a href="https://fsolt.org/">https://fsolt.org/</a>			European Commission, JRC, EDGAR database.				IMF WEO.	
<b>Calculation</b>	Difference between Gini coefficient based on market income and Gini coefficient based on disposable income. For the EU, the average of the 27 MS is first calculated for each of the two indicators, then the difference is calculated.			Indicators as provided by the source. EU-28.				CAB (% of GDP) as provided by the source. Average calculated.	
	<b>Social spending</b>			<b>Renewable energies</b>				<b>Labour productivity</b>	
<b>Sources</b>	Eurostat for EU-27. IMF Government Financial Statistics for US and CN.			Eurostat, Sustainable Development Indicators, for EU-27. For US and CN, data from the International Energy Outlook of the Energy Information Administration (EIA).				Eurostat for EU-27. Conference Board TED for US. National Bureau of Statistics for China.	
<b>Calculation</b>	Social expending calculated as Health + Social protection spending.			Share of renewable energy in gross final energy consumption for EU-27, as provided by the source. For US and CN, the % of renewable energy consumption in total energy consumption are calculated.				Labour productivity per person employed, as provided by the sources. Average calculated.	

<sup>10</sup> In the following, we comment on the European data and we find confirmation of the horizontal position of the EU in Figure 3 at the end of the second phase examined there. However, it is easy to verify that the US and Chinese data also justify the relative position of the two areas in the same Figure and with reference to the same back of time.

The only area, where the EU is at a relative disadvantage, is macroeconomic sustainability as measured by the large surpluses accumulated in trade with the other areas in recent years. As it has been repeatedly stressed, European growth has been largely driven by net exports. Far from reflecting high competitiveness, the positive current account imbalances of the EU (and, in particular, of the euro area) have been the result of a persistent excess of aggregate savings compared to aggregate investment. In other terms, these imbalances have been the macroeconomic counterpart of the lack of innovations and the associated implication for future economic prospects of the euro area.<sup>11</sup> This indicator therefore measures the relative decline of the EU and the euro area. It is important to add that geopolitical dependence on external demand has made the EU particularly vulnerable to exogenous shocks and economic policy decisions beyond its control. These considerations explain, inter alia, why, unlike the prevailing *vulgata* in a number of northern European countries - also endorsed by some economists - the persistent current account surplus is regarded here as a crucial element of macroeconomic weakness rather than strength.

The evidence provided in Table 1 supports our statement that the EU could play a driving role vis-à-vis the USA and China in order to identify international economic equilibria that overcome both the old multilateralism and the new conflictual bilateralism. To this end, the EU needs to leverage its advantages over the 'green' transition and social inclusion by linking them to the (at least partial) recovery of its delays in the adoption of digital technologies. European dominance in terms of social inclusion and green transition can, in fact, become an instrument for the governance of new international economic relations, which can certainly not eliminate the technological conflicts between the USA and China, but can open an interesting perspective (attracting towards a 'focal point') for the determination of equilibria that are less 'bad' than those set by a tit for tat bilateralism that would entail a substantial marginalisation of the EU. Three reasons underpin our conclusion.

The first reason is that both the USA and China aim to incorporate in their future economic model a progress in the ecological and social fields, albeit with different intensities and purposes. On the one hand, the Biden administration is focusing on a greater commitment to environmental rebalancing, the introduction of social welfare programmes and the containment of inequalities in income distribution in order to build a social safety net able to mitigate the impact of changes in technology and production organisation. Therefore, Biden's re-proposal of a form of "America first" is not only less aggressive than Trump administration, but also aims at defining an opposite economic-social model;<sup>12</sup> in this sense, the USA is becoming "more European" (as evidenced by their return to the northeast quadrant of Figure 3). On the other hand, in order to accelerate the full affirmation of its technological potential and its internal market and to gain not only economic but also political and institutional leadership in the new international context, China needs to prove that both the stigma of the world's largest polluter and that of a distorted competitor based on low wages are undeserved. Therefore, the prospects for success of the Chinese authoritarian "political capitalism" are also linked to its ability to incorporate greater environmental protection and to create a middle-income class in order to avoid more radical forms of openness of US-style liberal-meritocratic capitalism (see Milanovic, 2019).

The second reason is that European leadership in the ecological and social fields poses no threat to the USA or to China. The EU provides an institutional model of social inclusion and transition to sustainable energy sources and sustainable production based on greater complementarity between state and market, on more effective regulation of social relations, and on income

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11 Buti and Tomasi (2018) stress that, due to the asymmetric adjustment between member states and the consequent deflationary policies during the international financial crisis, the euro area moved away from its previous broadly balanced current account position and started to accumulate the highest and most persistent external surpluses of all largest economic areas. The econometric evidence in Esposito and Messori (2018) confirms that this surplus was driven by weak rather than strength factors.

12 As already mentioned, the Trump administration focused on protecting traditional domestic sectors, also in order to create a *mésalliance* between the richest sections of society and workers with outdated qualifications. On the other hand, the Biden administration seems to aim at relaunching internal innovative activities and exploiting new skills, albeit within a less unbalanced society.

redistribution. The resulting European combination of welfare state and circular economy thus entails a socially tempered form of liberal capitalism. Given the different aims and radical distances between US and Chinese capitalism, these two areas will aim at partial and distant imitations of the European model. For the USA, it will be a matter of incorporating those ingredients that increase contiguity with the EU in a common form of capitalism (that is, liberal capitalism); for China, it will be a matter of selecting ecological and social openings that are instrumental in strengthening its model of “political” capitalism. Therefore, while acting as a (partial) attractor for both the USA and China, the EU will not be pushed to weaken its international Atlantic vocation.

The third reason lies in a specific European option. Since its appointment in autumn 2019, the new European Commission has clearly set itself the objective of accelerating the green transition and strengthening digital innovation processes (see the most recent State of the Union speech by the Commission President: von der Leyen, 2021). The European fiscal response to the pandemic, centred on NGEU, has put this commitment into practice. Access to the funds of the most important NGEU programme, the RRF, presupposes that each EU Member State has obtained the approval of a national Recovery and Resilience Plan (RRP), in which at least 37% of EU resources are allocated to ‘green’ transition projects and at least 20% of resources to digital projects. In addition, the RRF rests on a third cornerstone: the combination of digital technologies and reduction of environmental impact must be made compatible with progress in terms of social inclusion. If successful, these synergies would open up international spaces for the EU that would not be conflicting with the USA and China and could help limit the distorted technological competition between the latter two areas. In order to comply with the EU’s ambitious environmental and social objectives, European digital innovations should follow different technological trajectories compared to those recently achieved in the USA and China. This would bring to the fore an old theme of the Schumpeterian literature (see e.g. Dosi, 1982): the most successful imitative processes are not those that follow the path of innovators, but those that open connected and complementary trajectories.

## 7. EUROPE AND THE NEW INTERNATIONAL GOVERNANCE

The above considerations indicate that, thanks to the EU’s potential economic mediation role, distortive technological conflicts between the USA and China can be made compatible with the introduction of other dimensions in international markets. There is scope for partial convergence towards the ecological transition and for a rebalancing of income distribution and, under certain conditions, for tolerance towards different innovative trajectories. Given the importance that we attach to the technological variable, it is worth insisting on the last aspect by taking up again the jargon of game theory. In this new framework, the ‘bad’ equilibria resulting from the tit for tat bilateral conflicts between the USA and China could be replaced by ‘Stackelberg equilibria’ – i.e. equilibria where the two competing areas and the EU would carve out roles of leaders and followers depending on the technological trajectories under consideration.

However, this admittedly optimistic conclusion depends on the success of NGEU and the RRF in attaining a positive combination of environmental transition, social inclusion and macroeconomic growth.

In this respect, it should first be noted that many innovations in digital – as well as in artificial intelligence, and telecommunications in a broad definition – are not of low environmental impact (see OECD, 2019); therefore, the challenge for the EU is to reduce its technological backwardness compared to competing areas while respecting the constraint of the ecological transition that reduces the innovative trajectories available. Second, innovative changes have significant impacts on the composition of labour demand; and, especially in the short to medium term and in the European framework of strong market regulation and population ageing, profound qualitative shifts in labour demand accelerate the obsolescence of many of the traditional skills

and penalise lower skills, giving rise to lower employment rates and higher rates of technological unemployment, further polarisations in wages and expansion of poverty groups, including in advanced areas.<sup>13</sup> The European objective of social inclusion, therefore, calls for innovative active labour policies and social policies to combat poverty. Finally, the environmental transition and the digital innovation lead to an acceleration in the degree of obsolescence of the existing productive capital stock; while this increases investments as well as expected net returns of production processes in the long run, it also tends to increase costs and create productive bottlenecks in the short to medium term. The combination of divergences between labour demand and supply, rising social costs, and the accelerated obsolescence of old capital stock risk leading to supply shocks that can have significant short-term negative impacts on economic activity.

The above perspective is starting to be reflected in analyses of the post-pandemic outlook of the European economy. Lenaerts et al. (2021) and Pisani-Ferry (2021) argue that green growth and the related digital innovations require policy choices that take into account the costs of the transition. The macroeconomic impact of the EU's agreed objective of reducing CO<sub>2</sub> emissions in 2030 by 55% compared to 1990 level and achieving a substantial zero of these emissions by 2050 could be more pronounced than that caused by other major post-war supply shocks (e.g. those linked to the raw materials crisis and, in particular, to the oil crisis in the early 1970s). Therefore, it is essential that the accelerated obsolescence of large shares of capital stock and labour availability does not have negative short-term economic effects in the EU which would risk jeopardising both the implementation of the replacement investments required by the green transition and the retraining and protection of workers; it would also risk blocking the European effort to bridge some of the technological gaps with competing areas.

In order to reduce the costs of the transition and avoid their negative consequences, it is important to take into account the main differences between the shock triggered by environmental objectives and related digital innovations in the post-pandemic phase, from the previously mentioned past supply shocks. The current shock is policy-induced and announced; as such, it is 'common knowledge'. Conversely, previous shocks were the consequence of largely unexpected phenomena. This means that today, unlike the recent past, the EU and its member states have time to prepare to manage the transition effectively (see European Commission, 2021b). The aim is to put in place appropriate strategies for the implementation of innovative and environmentally-friendly investments and for the training and retraining of workers going hand in hand with the expected obsolescence of increasing shares of the old capital stock and the old professional qualifications. This requires innovative microeconomic and macroeconomic policies that foster high growth during the transition.

The last observation implies that the transition's difficulties cannot be circumvented by weakening the environmental and technological objectives or by lengthening the implementation processes. As a recent analysis of the ECB has pointed out (see Alogoskoufis et al., 2021), these objectives are so binding, urgent and decisive for future generations that their achievement ensures economic and social benefits that, ex post, are more important than costs of the transition. However, differently from the assumptions shared by many macroeconomic textbooks, market adjustments are not instantaneous in the real world so that achieving new equilibria, characterised by a low environmental impact and by high innovation, takes time and cannot overlook the negative impacts of the transition. Hence, it is necessary to avoid that the latter negative impacts become unmanageable and prevent the completion of the transition processes even if the ex post costs of these processes are lower than the future expected benefits. NGEU and, in particular, the RRF and the associated NRRPs aim to make the costs and the other impacts of the transition manageable at least in the future five-year horizon (end of 2026).

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<sup>13</sup> The problems listed here are also taken seriously by those authors who do not share the view of technological pessimism, but – on the contrary – acknowledge the potential long-term positive effects of technological change. One of the most interesting of such models has been developed by Acemoglu and Restrepo (2019). De Nardis and Parente (2021) have extended this model and applied it to the European case.

Given its leadership in terms of regulation and environmental economy as well as in terms of state intervention and welfare state, the EU has relative advantages in those areas over the USA and China. However, the EU itself is seriously lagging behind these two areas with regard to digital innovations and artificial intelligence. NGEU and RRF are designed with the aim of reabsorbing European weaknesses, also by strengthening the points of relative advantage specific to the EU. This ambitious objective should be reflected in the implementation of those technological trajectories in telecommunications, digital and artificial intelligence that combine in effective and efficient ways with ecological standards and social inclusion.

If NGEU and RRF succeed in achieving these results, the European institutions will be able not only to improve the EU's position in international markets but also to carve out an active role of the area in the construction of a new international economic governance. This active role can be defined as a "non-neutral economic mediation" in the technological conflict between the USA and China. European economic mediation would open up new prospects for the US environmental and social ambitions; and, without betraying the EU's historic membership of the Atlantic Alliance, it would be able to remove the European economy from its technological dependence vis-à-vis the USA.<sup>14</sup> At the same time, the EU and the euro area would be able to help the gradual reduction of certain Chinese economic and social distortions, avoiding direct competition with China's own technological choices and mitigating the tensions in bilateral trade. This last step is crucial to point out that the US economy would not protect its medium to long term interest by asking to the European economy a trade decoupling towards the Chinese economy.<sup>15</sup>

If the EU were able to exploit its current positions of relative advantage and its opportunities in the post-pandemic world, it would exercise a "magnetic power" of attraction to other potential players in global economic governance. Indeed, many advanced countries and various developing areas look at the EU as a promising anchor to escape the stranglehold of the USA and China; the adoption of parts of the European model would provide a concrete tool to achieve such a result. Moreover, especially if under joint pressure from the remaining international areas, the USA and China would be positively conditioned by the EU agenda; and, as the recent initiatives taken by the Biden Administration indicate, this would strengthen efficient complementarity between state and market and the need for more effective regulation in an open international economy.

## 8. COHERENCE BETWEEN THE EU'S EXTERNAL AND INTERNAL AGENDAS

The previous analysis shows that a necessary condition for the EU to play an active role in building a new international economic governance is that its external agenda is supported by an internal agenda capable of ensuring – in the final equilibrium and during the transition – both an effective combination of green and digital investments, as well as the economic bases for innovative processes, productive reorganisations, rebalancing of the current account, retraining of workers and social cohesion. In her recent State of the Union address, the President of the Commission showed full awareness of the challenge and its difficulties (see von der Leyen, 2021).

The qualitative variables, which underlie Figure 3 (sustainability and degree of technological leadership) and which have been quantified by means of the indicators in Figure 4 and Table 1, provide the framework for the European policies in order to successfully pursue the EU's external

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<sup>14</sup> We acknowledge that the term 'mediation' may appear provocative, since it could suggest an equidistance of the UE with respect to the USA and China. To dispel this concern and re-affirm that the EU fully belongs to the 'liberal capitalism' (see above), we add two qualifications: non-neutral and economic. The latter qualification means that, even if from inside the Atlantic Alliance, the euro area's economy cannot be decoupled from the Chinese one in the same interest of the USA.

<sup>15</sup> Let us add that this decoupling would be economically unfeasible without a disruption of crucial international value chains that would have prohibitive costs for all the economic advanced areas.



agenda and thus have the opportunity of positively influencing the USA and China: catching up the technological delay (vertical axis) and improving sustainability, especially economic one (horizontal axis). The same figures and the problems of the transition, highlighted by recent work (see, for example, the above mentioned: Lenaerts et al., 2021; Pisani-Ferry, 2021), illustrate the need for appropriate microeconomic and macroeconomic policies to achieve growth in the EU economy based on the most ambitious environmental objective ever set by an advanced economy, and simultaneous to recover the significant delays in skills adapted to these environmental and technological objectives.

What is required to achieve these results is a 'vertical' coordination between an EU fiscal policy and national fiscal policies (see Buti and Messori, 2021). The cornerstone of this coordination is NGEU, and in particular its most important programme, the RRF. The related NRRPs of each of the EU countries provide an institutional framework and the adequate financial resources for the implementation of projects centred on reforms, public investment and private investment in environmental sustainability, digital innovations, labour supply and social inclusion. In this regard, it is important to recall that the RRF 'Guidelines' require that the total resources of each NRRP are allocated at least 37% in green investments and at least 20% in innovative investments in the digital sector; in addition, the 'Guidelines' recommend that each member state allocates an adequate amount of resources to absorb the social imbalances induced by the shift towards environmental sustainability and the catching up of technological delays. In practice, most of the NRRPs submitted to date go beyond these minimum thresholds.

It can therefore be said that, at least for the duration of the NGEU (at present, end 2026), around two thirds of the funding linked to the new centralised European fiscal policy, which is triggered by the RRF, will be allocated to those components of the EU's internal agenda that are essential to the success of its external agenda. Indeed, this share will aim at strengthening the EU's comparative advantages or reduce its relative weaknesses at international level. In addition, in spring 2020, the European Commission launched the aforementioned SURE programme for euro area's countries. Being in support of workers temporarily unemployed due to the economic fall out of the pandemic or helping short-time work arrangements, SURE has enriched the European tools for social inclusion and requalification of labour supply. Finally, in July 2021, the Commission proposed a climate package, Fit for 55, which goes beyond the NGEU time horizon and which also identifies potential tax revenues for strengthening 'own resources' in the European balance sheet (see European Commission, 2021a).

The external agenda, which aims at shaping an active role of the EU in the new international economic governance, has an unavoidable long-term horizon. Therefore, its foundations cannot be solid and the related European international economic proposal to the USA and China cannot be credible, if the internal agenda focuses on short-term challenges. This raises the issue of the future of NGEU and the RRF beyond 2026. However, any discussion on this is premature and raises problems that are not trivial, both from a legal and institutional point of view.

## 9. CONCLUSIONS

To use an image popularised by Robert Kagan almost twenty years ago, Europe will in the future continue "to come from Venus" (Kagan, 2004). In a world increasingly dominated by a logic of power entailing zero-sum games, this may be seen as a fatal weakness. Our paper argues that this is not an inevitable outcome. Under certain conditions, positive-sum games can still prevail. The EU and the euro area have important strengths, given the rising international concerns about environmental, social and economic sustainability. Although the obstacles remain formidable (see Papacostantinou and Pisani-Ferry, 2021), mending such fault lines can become a new "global endeavour".

A realistic European objective for a reformed global economic governance cannot be to restore the imperfect economic multilateralism that existed before the international financial crisis of 2007-2009 and which survived until the mid-2010s of this century. This does not exclude multilateral deals in important fields. Indeed, as is well exemplified by the global agreement reached on the taxation of major multinational companies, in the post-pandemic phase, the US and Chinese governments are willing to agree on compromise solutions in specific economic areas of mutual convenience. Yet, technological conflict for economic dominance over the frontiers of innovation between the USA and China is bound to last. This conflict risks relegating the EU to a marginal position in international markets. In spite of the serious delays accumulated by the European economy in digital innovation and artificial intelligence, the EU retains significant positions in more mature technologies. Coupled with large and persistent current account surpluses, this may give the false perception of a strong competitive capacity. However, especially in a situation of bilateral conflicts, persistent trade surpluses with the rest of the world are not a factor strength, but an element of vulnerability ('reverse creditor paradox', as dubbed in Buti and Tomasi, 2018).

In this debate, some have pointed to the risk of the EU being relegated to a role as a spectator in the conflict for research and application of the technologies of the future. We argue that such an outcome can be avoided. The growing technological conflict between the USA and China does not erase the fact that, in post-pandemic economy, the EU has significant opportunities. The new 'vertical' integration between national and EU fiscal policies, made possible by NGEU and other European Commission initiatives, will help tackle existing weaknesses by conveying sizeable resources to policies aiming at fostering the green and digital transition. This provides the EU with the tools to reduce its technological dependency and play up its strengths in the conflict between the USA and China. In this respect, the EU needs to exploit the complex synergies between digital innovations and the environmental transition. In the last part of this paper (see sections 7 and 8), it has been explained why this transition is complex, especially in the short to medium term. NGEU and other EU programmes may find applications and extensions that can solve or circumvent such difficulties.

The new international economic governance, which the EU could influence if it were able to effectively reconcile its internal and external agenda, would not overcome the technological conflict between the USA and China or lead to a mixture of the 'unbridled capitalism' of the USA and China's 'political capitalism'. The EU would obviously remain anchored in the Atlantic tradition. However, in the global economic relations, EU would offer a model tempering the rough edges of US capitalism by placing greater emphasis to both the green transition and social cohesion; and it would point the way for the evolution of Chinese capitalism, by improving the environmental standard and the internal income distribution.

This new international economic governance would not lead to a stable equilibrium. Rather, it would generate a sequence of what Hicks (1965) called "temporary equilibria". The implementation of these equilibria offers, from time to time, dominant solutions to the "bad equilibria" that would be produced by a lack of economic management of the bilateral conflict between the USA and China. Hence, the proposed EU role as "non-neutral economic mediator" is betting on sustainable growth, in its various facets, becoming a new "global common" and hence help attain such temporary equilibria. Winning such bet is far from evident. There is nonetheless little alternative. The global future as well as the well-being of European citizens depend on it.

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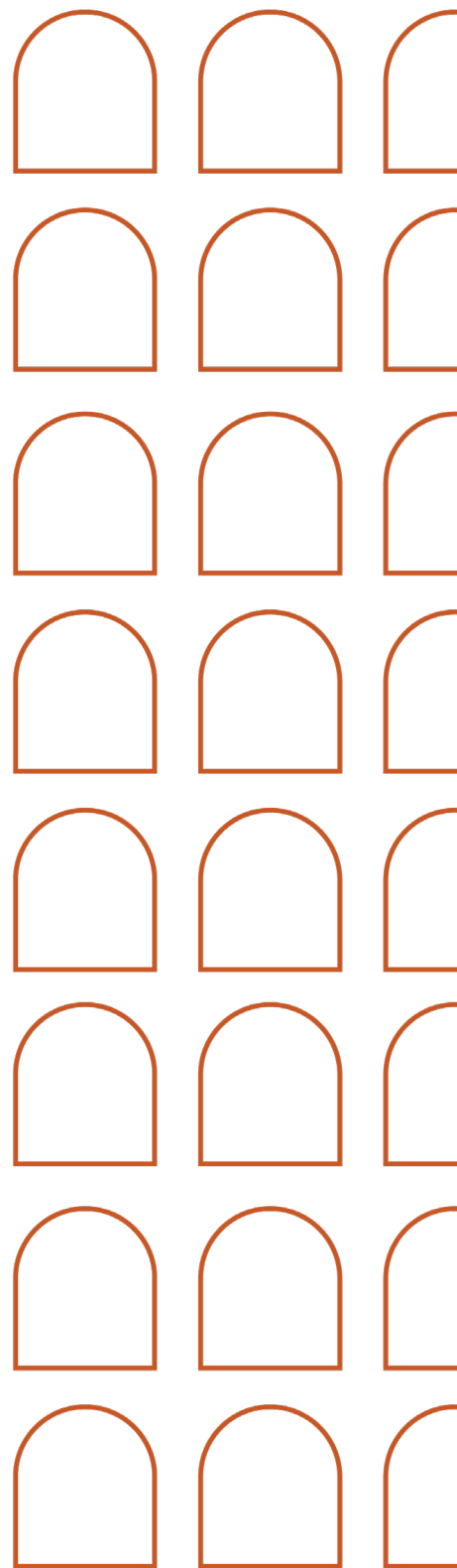
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