

Oil markets, energy transition, climate governance and COVID-19: the short, the medium and the long term

Gonzalo Escribano & Lara Lázaro-Touza



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Gonzalo Escribano & Lara Lázaro-Touza | Energy and Climate Programme, Elcano Royal Institute | @gonzescribano [🐦](#) & @lazarotouza [🐦](#)

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Summary

The COVID-19 pandemic has radically altered the energy outlook, both in economic and geopolitical terms. Climate governance has also been significantly affected in a key year for increasing ambition. This working paper analyses the impact of the coronavirus crisis on the geopolitics of oil and gas, on the evolution of the European Green Deal and on climate governance, updating and deepening a previous policy brief published in Spanish.¹ It concludes that, while the priority of governments and citizens is undoubtedly the fight against coronavirus, the radical change in the short-term context should not distract energy and climate policy from the challenges it faces over the medium and long terms. Furthermore, energy and climate policies will be key to shaping an optimal policy response to the crisis.

(1) Introduction

The coronavirus crisis has completely transformed the global landscape, and energy and climate issues have not escaped unscathed. Rarely have analysts had to rectify so much in so short a time. One of the problems facing social scientists in this context is that, unless they specialise in matters related to public health, there is still no academic literature available to guide the reflections of public decision-makers and think-tanks, which are starting to respond to the challenge necessarily in a reactive way. Not only oil prices and production forecasts have drastically changed: the very nature of global oil diplomacy has mutated, with the OPEC+ and the G20 reaching unprecedented agreements that signal the exceptional times the market is undergoing.

¹ Escribano & Lázaro Touza (2020).

It has been said that the coronavirus crisis has led to ‘a situation of radical uncertainty, which may persist over time’.² To some extent this observation may be viewed as an amendment to almost all the conjectures made about the possible course of 2020 at the beginning of the year.³ ‘Almost’, because although the outlook over the short term has changed in tandem with the spread of the virus, the challenges of the energy transition and the fight against climate change remain. In line with the overlapping stages of the response to the COVID-19 crisis (immediate response to the health crisis, contention of the twin supply and demand economic shocks, economic recovery and transformation of the economic model), this paper analyses the possible impact of the coronavirus crisis on the following issue-areas and time horizons: in the short-term, on oil and gas geopolitics and geo-economics; in the short to medium-term, on energy transition and the European Green Deal; and in the short- to long-term, on climate governance and climate policies. The paper concludes with some tentative reflections on energy and climate policy.

(2) Oil and gas diplomacy: from price war to G20 amid demand collapse

Perhaps the most radical upheaval in the energy outlook has occurred in the oil market. The price forecast of the US Energy Information Administration (US EIA) for 2020 in January was an annual average of US\$65 per barrel of Brent, the benchmark for crude oil in Europe;⁴ by 11 March it had fallen to an annual average of US\$43 and to US\$37 for the second quarter.⁵ After the assassination of Qasem Soleimani and the subsequent ratcheting up of tensions between the US and Iran, analysts lifted their price forecasts (Morgan Stanley from US\$60 to US\$65, Citibank from US\$56 to US\$61) or kept them in the region of US\$65 (JP Morgan). In March, Goldman Sachs released a warning that the price war could take them to the region of around US\$20.

The fall in the forecasted demand for oil attributable to coronavirus has been equally dramatic: in January the International Energy Agency (IEA) forecast an increase of 1.2 million barrels per day (mbd) for 2020, and in March an annual drop of 90,000 barrels per day, which just a few weeks later looked like a severe underestimate with the spread of COVID-19 and the subsequent seizing up of global economic activity. According to the IEA’s *Oil Market Report* in March, China’s demand for oil would fall in the first quarter of 2020 by 1.8 mbd, and global demand by 2.5 mbd.⁶ These figures have been rapidly superseded by events: more recent forecasts pointed to a fall in the global demand for oil of 20 mbd and even 30 mbd (20%-30% of the total) due to the worsening of the coronavirus crisis, causing the price war between Russia and Saudi Arabia to be relegated to a secondary issue.⁷

² Federico Steinberg (2020), ‘Liderazgo y cooperación ante la incertidumbre radical’, 19/III/2020.

³ Escribano (2020); Lázaro Touza (2020).

⁴ US EIA (2020), ‘Short-term energy outlook’, 14/I/2020.

⁵ US EIA (2020), ‘Short-term energy outlook’, 11/III/2020.

⁶ IEA (2020), ‘Oil Market Report, January 2020’ and ‘Oil Market Report, March 2020’.

⁷ Bloomberg (2020), ‘Oil demand catastrophe is making the price war a sideshow’, 20/III/2020.

However, the way the price war evolves is fundamental to forging market expectations. These changed from discounting an extension of the OPEC+ agreement and the underlying agreement between Russia and Saudi Arabia in order to maintain prices to adjusting to a relentless price war that has caused prices to nosedive in just a few days. The price of Brent crude remained in the US\$60-70 range last year and approached the higher end of the range at the start of 2020 after the tension between the US and Iran. A few days later, the price started to fall as the coronavirus spread across China, where the decline in economic activity, consumption and oil imports had a rapid impact on world markets.

But the worst was yet to come. On 5 and 6 March a meeting of OPEC+ was held where it was expected that the enlarged cartel would decide to extend and deepen production cuts. On 6 March the Russian Energy Minister, Alexander Novak, announced at the end of the meeting that from 1 April Russia would cease to apply the agreed cuts. Saudi Arabia took only one day to react, abruptly slashing the prices of Saudi Aramco intermediate crude: in case there was any doubt, the price cut in its best-selling medium crudes was greatest in Russia's largest and most lucrative market, Europe, where the fall was as much as US\$8 per barrel, compared with US\$7 for the US and US\$6 for Asia.

On 9 March the markets opened with declines in the region of 30%, to US\$34 per barrel. The greatest collapse in the price of crude oil since the end of the Gulf War in 1991, steeply climbing bond yields experienced by oil-producing countries and billions of euros lost in the equity values of oil companies were not enough to dissuade either the Saudis or the Russians. On the same day, Russia responded to the Saudi Aramco cuts by announcing that it would defend its market share and declared Rosneft's intention of boosting its output by 300,000 barrels a day in just one or two weeks from 1 April.

The following day, the Saudis matched the bet by announcing an identical extra increase in production, up to a level of 12.3 mbd from 1 April, a level that exceeds their production capacity but is possible by dint of resorting to stocks and, presumably, overexploitation at certain wells. And shortly afterwards, they raised the stakes again by preparing to lift their output capacity (although not actual production) to 13 mbd. At the beginning of April, Saudi Aramco reached an effective 12,1 mbd production and world oil storage levels came increasingly under stress. Several pieces of President Trump's tweet oil diplomacy alone (see below) drove prices higher, to US\$34, but at the time of writing (April 13, see Figure 1) and despite the historical agreement between OPEC+ and G20 members (see below), Brent prices were slightly above US\$31. Nevertheless, crude prices in some North American hubs were much lower, closer to US\$10 a barrel for the Bakken (North Dakota, US) and the Mexican mix, and much lower in Canada.

Figure 1. Evolution of futures for a barrel of Brent crude as at 13/IV/2020 (CO1:COM)



Source: Bloomberg, Energy Markets, 13/IV/2020, www.bloomberg.com.

The Russian decision to pull out of the agreement came as a surprise to analysts and the other participants in OPEC+, and in particular the new Saudi Oil Minister, Prince Abdulaziz bin Salman, a son of King Salman and a decades-long OPEC veteran. The Russian oil complex had been complaining for months about production cuts, which were delaying their investment plans in new projects. Above all, the cuts ran up against the implacable opposition of the all-powerful Igor Sechin, CEO of Rosneft and a key ally of Vladimir Putin, with whom he reputedly shares a past in the KGB. Head of the *siloviki* clan in the Kremlin and forged by hard-line nationalists from the military and intelligence apparatus, Sechin has consistently advocated a strong state energy sector, setting up Russian energy dominance in opposition to that advanced by the Trump Administration. He is also considered to be the creator of the narrative according to which the US uses sanctions against Iran and Venezuela to gain market share at their expense.⁸

Until 6 March however, Russia had limited itself to delaying tactics, such as putting off meetings or preventing them from being brought forward, questioning the need for additional cuts and consistently expressing a preference for much smaller additional cuts than those proposed by Saudi Arabia. Nobody was expecting such an abrupt withdrawal from the OPEC+ agreement, which had kept oil prices within reasonable bounds for all its members for more than three years. Although there had always been doubts about the strategy for exiting the agreement and how to phase out the cuts without overly affecting prices, there seemed to be a consensus about the need to have a controlled break-up, choosing the appropriate time and abiding by protocol without confounding expectations.

⁸ Amy M. Jaffe & Gabriela Hasaj (2020), 'Oil price war: is US shale the first to blink?', Blog Post, Council on Foreign Relations, 19/III/2020.

What most surprised the markets was that Russia should take its decision at the most inopportune moment possible, given the collapse in demand caused by coronavirus, unilaterally and without consulting the Saudis, and scuppering the prospect of a future reconstitution of OPEC+. So far all efforts at mediation between the Russians and Saudis undertaken by OPEC members have failed.⁹ The meeting of the OPEC+ technical committee that oversees market developments and compliance with quotas scheduled for 18 March was cancelled after Saudi Arabia said it would participate neither in a teleconference or in a face-to-face meeting.¹⁰

One of Putin's reasons for breaking up OPEC+ could be the impact it is expected to have on US frackers. The Kremlin seems to have reached the conclusion that it is time to pay the US back for the sanctions imposed on its energy sector for the annexation of Crimea, the Nord Stream 2 pipeline and the more recent sanctions on Rosneft for helping PDVSA evade sanctions on Venezuela. The Russian move came at a difficult time for US frackers, many of whom are facing financing problems (both via equity and debt) and could be pushed into bankruptcy by a prolonged period of low oil prices.

The Saudi reaction seems to combine the need to give a firm response to the Russian strategy with a shared desire to deal a blow to US fracking. The main challenge consists of fighting for market share in Asian markets. Europe has opted to diversify away from Russian energy imports towards energy transition and decarbonisation, forcing Russia to seek out new markets. The US is now not only self-sufficient, barely importing any oil, it has also started to export to Asia, and indeed China has undertaken to import increasing quantities of crude oil as part of its agreements with the Trump Administration to avoid a trade war.

Prior to the coronavirus epidemic, Asia was the main source of growth in oil demand and Saudi Arabia's largest market, absorbing more than 70% of its crude oil exports, whereas Europe accounted for only slightly more than 10% and the US barely 3%. As a consequence, the Asian market is the main bone of contention between the Saudis, Russians and US frackers, and the only one with a certain growth potential over the medium and long term. But Asian demand is being highly affected by coronavirus, and Russians and Saudis alike seem therefore to have concluded that the only way to maintain it is by reducing prices and gaining market share at the expense of their rivals.¹¹

Most analysts view the Russian gambit and the Saudi counter-gambit as doomed to failure on the grounds that an experienced chess player does not generally sacrifice pieces like OPEC+ at the same time as being held in the sort of check represented by the coronavirus. Others resort to the idea of the game of chicken, which in game theory models the behaviour of two drivers who vie to see who will remain at the wheel longest before plunging off a cliff. In principle, Russia could win the tussle, because its budget is balanced with prices in the region of US\$50 per barrel, whereas Saudi Arabia requires

⁹ Reuters (2020), 'OPEC+ calls off technical talks, mediation attempts fail: sources', 16/III/2020.

¹⁰ Tsvetana Paraskova (2020), 'OPEC+ scraps meeting as oil war heats up', *Oilprice.com*, 16/III/2020.

¹¹ Bordoff (2020).

more than US\$80. But both run the risk of snagging their clothes on a door handle at the last minute and ending up plummeting into the abyss.

Fatih Birol, Director of the International Energy Agency, came up with a different game metaphor when he said that Russians and Saudis are playing Russian roulette in their fight for market share. Other analysts, in turn, see it as a 'game theory masterstroke' hitting high-cost producers like US shale, which can no longer act as free-riders.¹² Oil price volatility is especially harmful for shale producers, reducing access to the finance they need in the absence of strong cash flows.

Set against this background of the unravelling of the agreement that governed (erratically and, even then, only partly) the global supply of oil, the crisis in demand has been aggravated by the economic standstill, the closure of borders and the lockdowns. All oil producers will be hurt by the fall in prices, but some undoubtedly more than others. The same is true of producers of gas, which is also trading at record low prices. The collapse in demand has revived efforts to restore some type of agreement between producers, with the US one of the most unexpected advocates of signing up to an extended version of OPEC+.

It is indeed in the US that the COVID-19 crisis has led to a sharp fall in the frackers' exploration activity and output, as they were already suffering the effects of financial pressures prior to the collapse in the market and had production costs that far exceeded current prices. According to some analysts, they will need to reduce costs by 40% to maintain cash flow neutrality at US\$35 per barrel (a barrel of WTI, the benchmark in the US, was trading at around US\$22 on 19 March).¹³ It is true that in 2014 and 2015 they slashed costs and improved productivity, but at the current prices the US could lose output of almost 1 mbd in a year. Nevertheless, some analysts believe that even if its comeback trail is steep and long, US shale 'will rise again' due to the existing infrastructure, its capacity to ramp-up production quickly and its huge reserves.¹⁴

The Trump Administration has reacted with massive purchases of oil to take the country's strategic oil reserves to their maximum capacity, buying 77 million barrels of US-produced crude oil.¹⁵ Producers in Texas have simultaneously asked the local regulator, the Texas Railroad Commission, to force producers to cut their output to maintain prices, and have called for concerted action with Russia and Saudi Arabia.¹⁶ For the US it is a difficult move because it is private companies who conduct production, rather than national oil companies or state-controlled ones as is the case in most OPEC+ countries. In principle, it could be done in Texas (which accounts for 40% of US oil production)

¹² Antoine Halff (2020), 'Saudi-Russia oil war is a game theory masterstroke', *Financial Times*, 1/IV/2020.

¹³ Platts (2020), 'US oil, gas rig count falls 22 to 813 on week as activity cutbacks by E&Ps deepen', 19/III/2020.

¹⁴ Joe Carroll (2020), "'Rocks don't go bankrupt': experts say shale will rise again", *BloombergQuint*, 27/III/2020.

¹⁵ Department of Energy (2020), 'Department of Energy executes on direction of President Trump, announces solicitation to purchase crude oil for the SPR to provide relief to American energy industry', 19/III/2020.

¹⁶ Wall Street Journal (2020), 'US considers intervention in Saudi-Russia oil standoff', 19/III/2020.

through the so-called 'proration' by the Texas Railroad Commission, which controls almost half of US oil production, but it may prove difficult to get all the involved companies' agreement to implement a measure that has not been applied for over half a century.¹⁷

In a four-day OPEC+ meeting (8 to 12 April), producer countries reached an agreement to cut production by 9.7 mbd in May-June (but only a 7.2 mbd cut from average production levels in the first quarter of 2020), 8 mbd in the second-half of 2020 and 6 mbd through April 2022 (from an October 2018 base). Saudi Arabia, the UAE and Kuwait would have agreed to cut another 2.3 mbd in addition to the OPEC+. Within the G20 meeting framework there are talks of a further 3.7 mbd cut over the next year from G20 states outside the OPEC+ (US, Canada and Brazil), but little binding commitments were offered. Given that Mexico has only committed to a 100,000 bd cut, out of its 400,000 bd quota, the US will supposedly cut the remaining 300,000 bd on behalf of Mexico, which may leave OPEC in June. These cuts will be complemented by IEA countries purchasing oil for their strategic reserves, to reach a combined effect of removing 19 to 20 mbd.¹⁸ Trump has already warned that the US is ready to impose tariffs on Russian and Saudi oil if the agreement is not adequately implemented.¹⁹

Whatever the final implementation of the OPEC+ and G20 cuts, for now it seems that even a coordinated production cut of up to 15-20 mbd is unlikely to balance an oil market facing a 25-35 mbd demand collapse, depending on the duration of the crisis; in fact, production cuts are already being effected regardless of the fate of the OPEC+ and G20 agreements.²⁰ The reaction from the markets to such an historical agreement was surprisingly mild, with small gains in the WTI benchmark and even price losses for Brent. This means that the markets are doubting that the cuts will be enough to offset the lost demand and that G20 commitments will be met. Furthermore, some analysts suspect the OPEC+ and G20 agreements are a temporary truce rather than a genuine peace. Once the lockdowns ease and oil demand starts to rise they expect the war over market share between the Saudis, the Russians and the US to resume.²¹

Nevertheless, the worst fallout has probably been earmarked for those oil and gas-producing countries that are a long way short of holding the currency reserves of Russia, Saudi Arabia and other Arabian Gulf monarchies, or the economic strength of the US. Many of them, such as Algeria, Iraq, Iran, Libya, Nigeria and Venezuela, find themselves in extremely delicate socio-political situations and need prices to be above US\$100 a barrel to be able to balance their budgets. In Algeria, for instance, the oil and gas sector

¹⁷ Yergin (2020).

¹⁸ Amena Bakr, Oliver Klaus & Casey Merriman (2020), 'Ambiguity clouds hard-fought Opec-Plus deal', *International Oil Daily*, Energy Intelligence, 12/IV/2020.

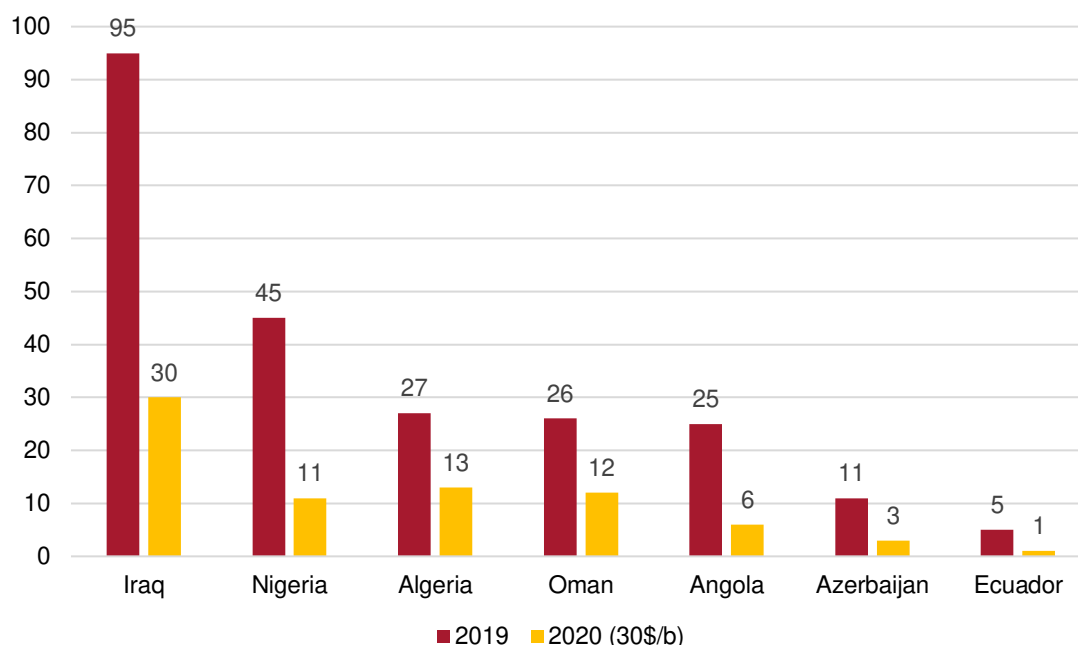
¹⁹ David Sheppard & Derek Brower (2020), 'US and Canada discuss putting tariffs on Saudi and Russian oil', *Financial Times*, 4/IV/2020.

²⁰ Energy Intelligence (2020), 'Output Cut Would Not Offset Demand Drop', *International Oil Daily*, 6/IV/2020.

²¹ Julian Lee (2020), 'The US-Saudi-Russia oil cease-fire won't last', *Bloomberg Markets*, 12/IV/2020.

accounts for around 30% of GDP and almost 60% of tax income. In Venezuela, oil contributes 60% of tax receipts, with figures of 70% in Nigeria and 90% in Iraq.

Figure 2. Net income in oil-producing countries, 2019-20 (2020 at US\$30/barrel), in billions of US\$



Source: IEA, 'Energy market turmoil deepens challenges for many major oil and gas exporters', 16/III/2020.

The IEA has modelled the impact on producers of the changes in oil market conditions (fall in demand, increase in supply and an average price in 2020 of US\$30 per barrel), and the results are alarming: some key producers' income from oil and gas could fall between 50% and 85% in 2020 compared to the previous year, which would be their lowest level of income in the last two decades. Figure 2 shows the simulations for some key producers, which are facing substantial loss of income: US\$65 billion in the case of Iraq, US\$29 billion in Nigeria, US\$14 billion in Algeria and Oman, US\$19 billion in Angola, US\$8 billion in Azerbaijan and US\$4 billion in Ecuador.

As far as gas is concerned, the collapse in prices and demand due to the seizing up of economic activity is set to heighten competition between Europe's traditional suppliers and liquid natural gas from the US (which in 2019 was already Spain's third-largest supplier after Algeria and Nigeria). It also casts doubt on the future income of Mediterranean producers and the economic rationale of continuing to heighten gas competition in the eastern Mediterranean. At current gas prices it seems difficult to justify the major new investment required for its extraction and transport.²²

²² Haaretz (2020), 'Israel needs to let go of the natural gas fantasy', 12/III/2020.

In short, the impact of the rapid decline in the demand for oil (and to a lesser extent for gas) brought on by the coronavirus has been made more acute by the price war between Russia and Saudi Arabia, causing oil and gas prices to plummet. The combination of the two has had a knock-on effect not only on share prices in the energy sector but also on the bond yields of producer countries, substantially increasing the risks of instability in many of them, especially those that were already suffering from economic weakness and the pressures of growing socio-political unrest. In the current situation of radical uncertainty and until the healthcare crisis comes under control, the collapse in demand will continue determining the dynamics of the oil and gas markets, and with it the economic and political evolution of the producer countries.

(3) Energy transition and the European Green Deal against coronavirus

Another of the COVID-19 pandemic's most frequently-mentioned risks for the energy sector is its impact on renewables and, as a result, on the pace of energy transition. The fall in oil and gas prices could cause renewable energies to lose their price competitiveness and dissuade people and governments from investing in them. The performance of the price of CO₂ emission rights in the EU is the starkest illustration of this disincentive. Figure 3 shows how the price dipped and then partially rebound over the past 60 days, from €25.59 by late February to €15.24 by mid-March and then up to €20.85 on 16 April, something that is a disincentive to emission reductions, especially if the fall in the price of CO₂ persists over time. The reform of the ETS and the introduction of the Market Stability Reserve in 2019 can be expected, however, to limit a long-lasting drop in the CO₂ price.

Figure 3. Evolution of emission-right prices in the EU over the past six months (to 16/IV/2020, €/EUA)



Source: EMBER, Carbon Price viewer, <https://ember-climate.org/carbon-price-viewer/>.

Apart from the distortion of economic incentives, the health and economic crises that lie ahead could also distract governments from energy transition. Policymakers will find it difficult to prioritise any other issue on their agendas, giving rise to administrative and

political delays, as well as greater competition for budget spending. In fact, a recent EU document highlights some initiatives under the European Green Deal that may be delayed.²³ Additionally, in member states such as Germany, for instance, the coronavirus crisis has already caused a delay in decisions related to the deployment of renewable energies needed to fulfil its commitments.²⁴ At a global level, the behaviour of capital markets in terms of financing investment in renewable energy will be one of the variables requiring close attention in order to understand the impact of the epidemic on the ecological transition. Added to this is a possible slowdown (or disruption), theoretically temporary, in the global supply chain in renewables.²⁵

Companies may delay their decisions to mitigate and adapt to climate change, even when their exposure to physical and transition risks remain largely unaltered. In the short term, EU airlines and the automotive sector are lobbying the Commission to postpone ETS reforms to include diffuse sectors and the 2021 review of car emission targets.²⁶ Other sectors are also insisting on technological neutrality in research and development, for instance regarding Carbon Capture and Storage (CCS) and hydrogen solutions. High emission industries, like the petrochemical and pharmaceutical sectors, are also highlighting their contribution to fight the COVID-19 pandemic by producing plastic products (disposable face masks, gloves and other protective equipment) and medicines.

Consumers may change their preferences in response to the crisis, prioritising short-term economic considerations over environmental ones, restricting for example investments in energy efficiency or electric vehicles, especially if the drop in GDP and the rise in unemployment are pronounced and/or persistent over time.²⁷ Some Finance Ministers have shown concern regarding whether green stimulus packages can be deployed fast enough to be the key driver of economic recovery, rather than being one more tool (admittedly an important one) to be implemented. Yet other Finance Ministers,

²³ According to a leaked document published by Euractive on 16 April, in principle the EC will maintain the timeline for the Renewed Sustainable Finance Strategy, the 2030 Climate Target Plan and the impact assessment, and the renovation wave. Possible delays may occur in the establishment of the European Climate Pact, the review of the Non-Financial Reporting Directive, the Farm-to-Fork Strategy, the EU strategy for smart sector integration, offshore renewable energy, the EU Biodiversity Strategy for 2030, the 8th Environmental Action Programme, the chemicals strategy for sustainability and the strategy for sustainable Smart mobility. The initiatives that are expected to be delayed include the new EU Strategy on Adaptation to Climate Change, the New EU Forestry Strategy, empowering consumers for the Green transition, ReFuelEU Aviation –Sustainable Aviation Fuels and FuelEU Maritime– and the Green European Maritime Space. F. Simon (2020), 'LEAKED: full list of European Green Deal initiatives', Euractive, 16/IV/2020.

²⁴ Roy Manuell (2020), 'Clean energy transition will take coronavirus hit', ICIS VIEW, 18/III/2020.

²⁵ Temple (2020).

²⁶ Mehreen Khan (2020), 'Dumping the Green Deal', *Financial Times Brussels Briefing*, 3/IV/2020.

²⁷ It is currently too early to anticipate the impact of the coronavirus crisis on growth and employment. In Spain, the preliminary estimates of the Bank of Spain should be available in April. In terms of the impact on electric vehicles, see L. Millán Lombrana, J. Shankleman & A. Rathi (2020), 'An economic crash will slow down the electric vehicle revolution... but not for long', Bloomberg Green, 17/III/2020.

such as Olaf Scholz in Germany, support green stimulus packages²⁸ as a response to the COVID-19 crisis.

If a green stimulus is adopted as the COVID-19 strategy, shovel-ready policies in the form of their Integrated Energy and Climate Plans (NECPs) provide a predictable roadmap which can help the EU achieve its collective goal of becoming the first climate-neutral economy in 2050. NECPs are available for all member states, providing the private sector with predictable policies that allow businesses to engage in long-term investments. Implementing NECPs and supporting a green recovery can help shape the future of Europe in the midst of the Sixth Wave of Innovation²⁹ that is low carbon in nature.

In a somewhat counterintuitive way, however, the fall in fossil fuel prices and appropriate economic and energy policy responses to the coronavirus crisis could work in favour of the energy transition and the green economy as a whole.³⁰ This is mainly because, as surveys indicate, sustainability and green values are increasingly gaining ground in Europe³¹ (and in Spain).³² These environmental attitudes may partially limit the attraction of lower fossil fuel prices for a large number of consumers and restrict the space for some governmental and corporate energy policies, as greater emphasis is being placed on environmental, social and governance (ESG) factors.³³ In fact, HSBC reported that ESG stocks outperformed during the COVID-19 slump.³⁴ In addition, the health and social (ie, redistributive) dimension of recovery plans will be increasingly scrutinised by the public.

On the other hand, the fall in oil and gas prices is a major opportunity for removing subsidies or increasing taxes on fossil fuels without raising end-user prices. This would avoid incurring the wrath of the consumers affected, as occurred in recent months in Ecuador, Iran, Brazil and France, among other countries. According to the IEA, subsidies on fossil fuels have continued increasing in recent years, reaching a level of US\$400 billion in 2018, and 40% of them are geared towards reducing the cost of oil products, not necessarily in the most efficient or progressive way.³⁵ Admittedly, in the short run, governments may think twice before increasing taxes for both economic and social reasons, but phasing out fossil-fuel subsidies seems straightforward.

²⁸ B. Parkin, W. Wilkes & M. Carr (2020), 'Germany touts green stimulus in post Covid-19 policy push', Bloomberg Green, 6/III/2020.

²⁹ Silva & Di Serios (2016).

³⁰ E. Ontiveros (2020), 'Píldora de actualidad COVID19 – El impacto del COVID19 en la economía mundial y en la economía española', Analistas Financieros Internacionales, 19/III/2020.

³¹ EC (2019), 'Special eurobarometer 490', Climate Change; Poortinga *et al.* (2018).

³² Lázaro Touza *et al.* (2019).

³³ Doug Morrow & Kaili Ma (2020), 'Coronavirus, oil prices and ESG: three takeaways for investors', Sustainalytics, 12/III/2020.

³⁴ Ashim Paun (2020), 'ESG stocks did best in COVID-19 slump. Climate and sustainable investments outperformed as pandemic struck', HSBC, 27/III/2020, <https://www.gbm.hsbc.com/insights/global-research/esg-stocks-did-best-in-corona-slump>.

³⁵ Wataru Matsumura & Zakia Adam (2019), 'Fossil fuel consumption subsidies bounced back strongly in 2018', IEA Commentary, 13/VI/2019.

Moreover, unlike in previous price wars, the renewable industry is consolidated, it has attracted both large and small-scale investors and can count on the support of the finance industry. Fossil-fuel investments on the other hand have been tarnished: they run the risk of becoming stranded assets and are viewed as subject to restrictive taxonomies that make their financing increasingly difficult or costly.³⁶ The reality of the energy market has changed, and now the best investment strategy amid the fall in oil and gas prices is no longer to reduce exposure to renewables but precisely the opposite.³⁷ This is exactly what many European oil companies have been doing in recent months. Indeed, the collapse in oil and gas prices has increased the risk profile of the fossil-fuel industry for investors, who may prefer the stability offered by regulated renewable technologies.³⁸ Thus, as in other economic sectors, the greatest risk for renewables tends to stem from the economic impact of the crisis and from regulatory predictability rather than from the adverse fluctuations in relative prices.³⁹

The specific characteristics of the coronavirus crisis also need to be considered. Up until now, a fall in fossil-fuel prices meant an increase in demand from the consumers. At the moment, however, a growing part of the world's population is on lockdown at home, many borders have been closed and the health alert has ensured that the appetite for travelling has vanished. The fall in fossil-fuel prices is not going to incentivise journeys by car, boat or aeroplane over the short-term, and it remains to be seen how the pandemic evolves over the coming months and to what extent it might change the attitudes and lifestyles of the societies it affects. The widespread practice of working from home, for example, could endure beyond the health emergency and generate new corporate and mobility models, both domestic and international.⁴⁰ If this were to happen, such a change would help to reduce the emissions of one of the industries that contributes most to the output of greenhouse gases (see Figure 4) and is most difficult to decarbonise. On the other hand, the coronavirus crisis risks harming both public and collaborative/shared mobility models, at least in the short run.

³⁶ EU Technical Expert Group on Sustainable Finance (2020), 'Taxonomy: final report of the Technical Expert Group on Sustainable Finance', March.

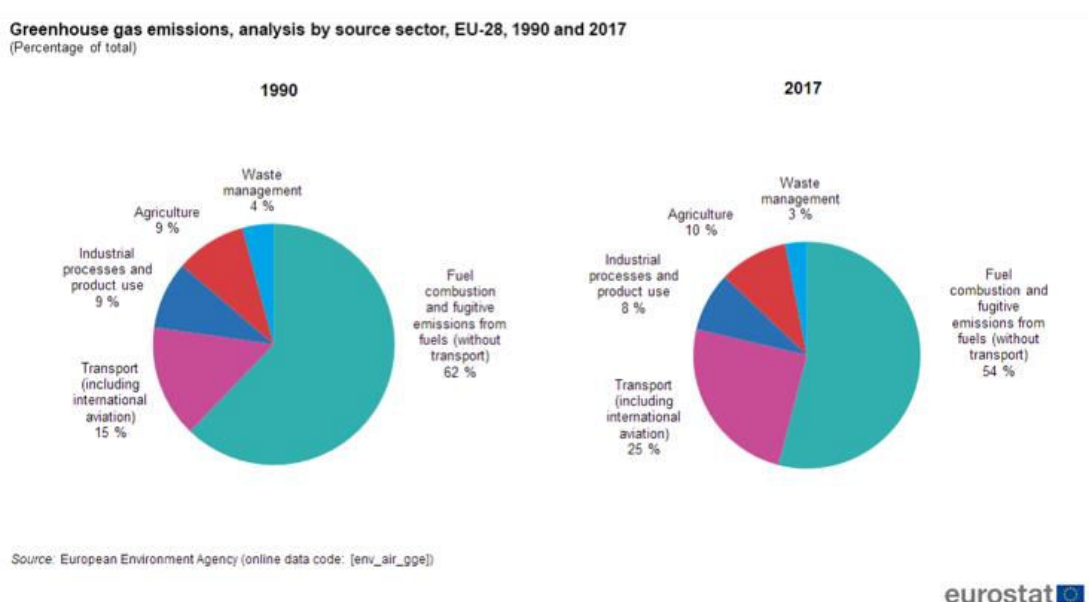
³⁷ Daniel Cohan (2020), 'Coronavirus crisis opens new paths toward clean energy', *The Hill*, 15/III/2020.

³⁸ David Vetter (2020), 'How coronavirus makes the case for renewable energy', *Forbes*, 13/III/2020.

³⁹ Karl-Erik Stromsta (2020), 'For wind and solar sectors, biggest coronavirus risk may be a damaged economy', *GTM*, 15/III/2020.

⁴⁰ Maria Demertzis, André Sapir, Simone Tagliapietra & Guntram B. Wolf (2020), 'An effective economic response to the coronavirus in Europe', Bruegel Policy Contribution, nr 6, March.

Figure 4. EU-28 greenhouse gas emissions by sectors in 1990 and in 2017 (as a % of the total)



Source: Eurostat, 2019, p. 4.

However, behaviours that are as deeply embedded, such as private vehicle use, are extremely difficult to modify, requiring not only changes in urban planning but also changes in corporate culture and habits, the availability of public and low-emission transport as well as educational and cultural changes that will take time.⁴¹ Moreover, factors such as so-called face-to-face (F2F) buzz, identified more than 15 years ago by Storper & Venables,⁴² among others, may restrict the scope of distancing measures once the crisis is over.

What may, however, gain pace is the electrification of transport. In principle, cheap oil is a threat to electric vehicles (EV). But EV sales are increasingly related to regulations that are here to stay. In Europe, China and California, for instance, governments have established emission standards for cars, and internal combustion vehicles (ICE) phase-out dates. Denmark, France, Germany, Ireland, The Netherlands, Norway, Portugal, Slovenia, Spain, Sweden and the UK have signalled their intention of banning the sales of ICEs between 2030 and 2040,⁴³ in line with EU proposals. Elsewhere around the world countries like Egypt, India, Israel and Sri Lanka,⁴⁴ among others, are also considering and adopting similar ICE phase-out plans. China is also considering ICE vehicle bans in some areas, a measure that according to the Ministry for Industry could be extended to the entire country.⁴⁵

⁴¹ Cass & Faulconbridge (2016).

⁴² Storper & Venables (2004).

⁴³ Mileu (2020), 'Phasing-out sales of internal combustion engine vehicles', Scoping study by Milieu for Transport & Environment, Final Report, March.

⁴⁴ Coltura (undated), 'Gasoline vehicle phaseout advances around the world'.

⁴⁵ Reuters (2019), 'China mulls ban on gasoline cars in some regions', 22/VIII/2019.

Additionally, the reduction in the price of batteries currently observed is unlikely to be reversed. Once electric vehicles reach price parity (around 2023 according to estimates by Bloomberg New Energy Finance),⁴⁶ EVs will be more competitive regardless of the price of fossil fuels: it will be the price of batteries, not oil, that will then become the determining factor (along with the availability of charging infrastructure) of EV purchase decisions. Meanwhile it seems unlikely that the vast investments in the electrification undertaken by car manufacturers will change because of short-lived fluctuations in the price of oil. The industry's commitment is long-term and the electrification of mobility seems unstoppable.

The case of electric vehicles shows the importance of public policies, which need not only be maintained but intensified. The key to the impact of coronavirus on energy transition lies in the policies to counteract its effects, whether economic or social. The recommendation of Rahm Emanuel, advisor to President Obama, that called for never letting a good crisis go to waste, is well known. Emanuel referred both to the oil crisis of the 1970s and to the great recession, pointing out that in both there was a need to take advantage of the situation to push through new economic models, especially related to energy, that were not based on cheap oil. In this respect, it has been argued that the current crisis offers the chance to forge a different type of capitalism, taking advantage of the greater role of the state to mould public support for the sectors that request their conversion to the green economy and decarbonisation.⁴⁷

This view has been endorsed by the director of the IEA, Fatih Birol, for whom 'clean energy should be at the heart of governments' economic stimulus plans'. Unlike other possible types of stimuli, advances in low-carbon energy technologies, the infrastructure for their integration and energy efficiency will not only have enduring effects but might also make the difference over the medium and long term.⁴⁸ Indeed, one of the lessons of the crisis ought to be the importance of achieving sustainable development.⁴⁹ In addition to such stimuli, however, fiscal measures can also be introduced: just as the fall in the prices of oil and gas enables subsidies on fossil fuels to be cut, the fall in the prices of CO₂ offers a chance to tax emissions. Given the limited movement of people in the current situation, it could also be introduced into the transport sector without overly penalising consumers, but especial attention should be given to low-income consumers.⁵⁰

⁴⁶ BNEF (2019), 'Battery pack prices fall as market ramps up with market average at \$156/kWh in 2019', 3/XII/2019.

⁴⁷ Mariana Mazzucato (2020), 'The Covid-19 crisis is a chance to do capitalism differently', *The Guardian*, 18/III/2020.

⁴⁸ Fatih Birol (2020), 'Put clean energy at the heart of stimulus plans to counter the coronavirus crisis', *IEA Commentary*, 14/III/2020.

⁴⁹ Nathalie Tocci (2020), 'International order and the European project in times of COVID19', *IAI Commentaries*, 20/III/2020.

⁵⁰ Brad Plumer & Henry Fountain (2020), 'Coronavirus and climate change', *The New York Times*, 11/III/2020.

In the US, the Trump Administration has reacted, as expected, in a diametrically opposite way, launching initiatives to rescue fracking and relaxing environmental rules by allowing companies to decide whether they can meet these rules in the current context,⁵¹ paving the way for increased environmental damage as an additional problem to deal with in the aftermath of the COVID-19 crisis. However, in the Democrats' candidates' debate held on 15 March, both Sanders and Biden endorsed the energy transition and put forward restrictions on fracking, stricter in Sanders' case.

China is another cause for concern, if the course chosen for its economic recovery involves increasing its coal capacity and cashing in on low oil and gas prices to boost sectors that are intensive in hydrocarbons and emissions.⁵² In fact, China's car industry has already asked for flexibility in emission regulations. Plus, the Chinese government is lifting existing restrictions on buying cars. Tax cuts are being implemented for small cars and other support measures for car dealers are being rolled out. In addition, the increased risk perception of contagion in public transport may increase the demand for individual car use, as reported in China, where sales of small cars have indeed risen.⁵³ On the other hand, in order to prevent a rise in CO₂ and other particles in the medium-term, the Chinese authorities have established subsidies for electric vehicles, and will reinstate them for plug-in hybrids and hydrogen fuel-cell cars until they become mature enough to freely compete with combustion engines.

The EU needs to be capable of doing things differently as interests and values regarding a climate-neutral future are aligned. The European Green Deal offers an ideal destination for economic stimuli and should retain priority in the way they are allocated. Some member states have lost no time in insisting that the European Commission should forget the Green Deal and focus on fighting coronavirus,⁵⁴ failing to realise that the European Green Deal could be one of the most effective mechanisms, in the short to medium term, to counteract the economic fallout caused by the COVID-19 pandemic. The member states opposed to the Green Deal should not be allowed to stall it using coronavirus as an excuse. The EU's Mediterranean countries, by contrast, being amongst the most affected by the COVID-19 pandemic, may actually benefit from an accelerated energy transition, something that in turn would lead to a greater contribution on their part to attaining European climate neutrality by 2050.

Thus, far from constituting a hindrance to energy transition and a setback for the European Green Deal, the coronavirus crisis offers an opportunity to make progress with both. The positive effects of the European Green Deal will not only be felt in the short term but also in the future. If some EU member states do not want to make headway on decarbonisation and are not convinced by this economic recovery strategy, let them renounce the stimulus packages announced by the EU in the fight against COVID-19, some of which can be channelled through the European Green Deal.

⁵¹ L. Friedman (2020), 'Citing coronavirus, drastically relaxes rules for polluters', *The New York Times*, 26/III/2020.

⁵² Michal Meidan (2020), 'Geopolitical shifts and China's energy policy priorities', OIES Comment, March.

⁵³ Ipsos (2020), 'Impact of coronavirus to new car purchase in China', *Ipsos News*, 14/III/2020.

⁵⁴ Euractiv (2020), 'Czech PM urges EU to ditch Green Deal amid virus', 17/III/2020.

(4) Climate and pandemic

Returning to the initial reference to the climate outlook for 2020,⁵⁵ it is important to emphasise that the difficulties in the process of global climate governance have been aggravated by the COVID-19 pandemic and it is now more necessary than ever to listen to science. Both the pandemic caused by coronavirus and the climate emergency are chronicles of crises foretold, and the parallels are beginning to be noted in academic circles. Although the COVID-19 pandemic and climate change have very different ‘incubation’ periods, days or weeks in the case of the coronavirus and centuries in the case of climate change, both crises illustrate the problem of growth (of contagion and of emissions) in the face of limited means (sanitary or planetary).⁵⁶ Furthermore, their solution inevitably involves adhering to scientific recommendations, which we are heeding late in the case of coronavirus and which we have largely ignored in the case of climate change.

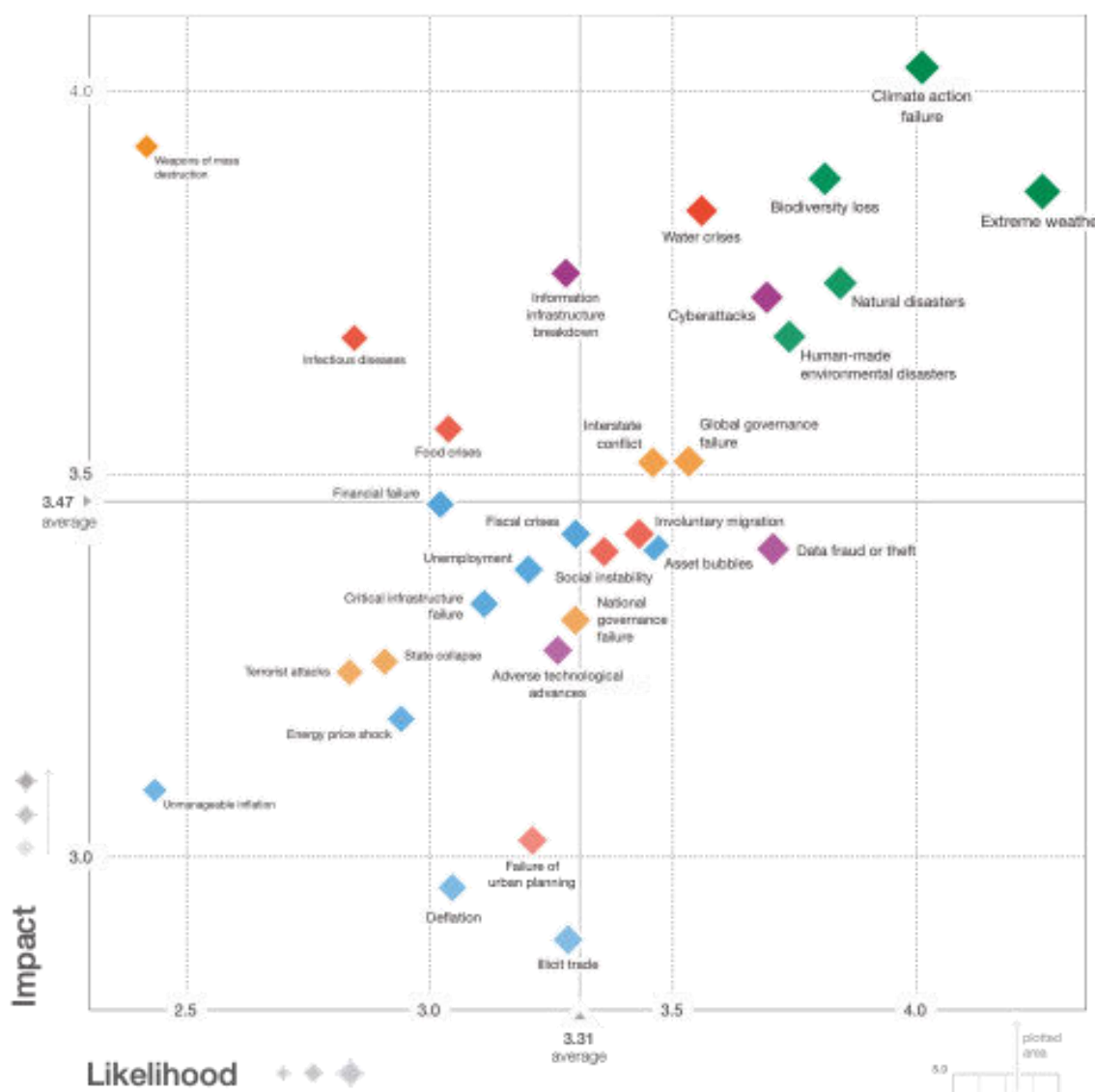
In 2007 Chen *et al.*⁵⁷ warned that the habit of consuming exotic species was a ‘timebomb’ capable of unleashing a pandemic and that we should prepared to cope with. In 2020 the World Economic Forum’s risk analysis ranked infectious diseases as the 10th most serious global threat in terms of impact, stressing that no country in the world was adequately prepared to confront a pandemic such as the one we are currently enduring. It seems clear that the window of prevention has closed in the case of coronavirus and that the response, which needs to be global and simultaneous, is being forged at a time of diachronic individualism.

⁵⁵ Lázaro Touza (2020).

⁵⁶ B. Gardiner (2020), ‘Coronavirus holds key lessons on how to fight climate change’, *Yale Environment360*, 23/III/2020.

⁵⁷ Cheng *et al.* (2007).

Figure 5. Map of global risks, 2020



Source: World Economic Forum (2020).

Climate science, meanwhile, has been reporting on the causes, consequences and policies for limiting the worst impact of climate change since at least 1988, when the Intergovernmental Panel on Climate Change (IPCC) was set up. According to the IPCC's fifth assessment report (AR5) climate change is occurring, has a clear anthropogenic component and is already affecting both ecosystems and our own societies. We also know that global action to slow down climate change is clearly inadequate to avoid the most severe impacts.

More recently, at the beginning of March 2020, the World Meteorological Organisation reported that concentrations of greenhouse gases had reached record levels in 2019 (with CO₂, for instance, at 407.8 ppm). It also reported that since the industrial revolution the mean global temperature had increased by 1.1°C (+/-0,1°C), that the most recent decade had been the warmest since records began and that the average global sea level

is at its highest since accurate altimetry measurements have been recorded.⁵⁸ Lastly, while 2019 was a year of fewer fires in the US (with the exception of California and Alaska), there were countries that had suffered large-scale wildfires with dire impacts, such as Australia, Brazil (the Amazon), Russia (Siberia) and Indonesia. Although the data are more recent than those provided at the beginning of the year, the message continues to be the same: emissions and their impacts continue increasing while we ignore the warnings provided by science.

As far as the impact of coronavirus on climate change and air pollution is concerned, an article published in the journal *Nature* recently reported that the measures to halt the pandemic have temporarily reduced greenhouse gas emissions and air pollution,⁵⁹ which damage respiratory systems attacked by coronavirus.⁶⁰ Nonetheless, the restart of productive activity and the potential return to pre-coronavirus patterns of consumption will limit this temporary respite for the climate.

Regarding the effects of the COVID-19 pandemic and the social distancing measures on the responses to climate change, the following should be highlighted:

- (1) The impact on the climate negotiation process, with the postponements of COP 26 and of the biodiversity summit (COP 15) in Kunming, China.
- (2) The impact on the implementation of the development tools of the Paris Agreement, in other words, the impact on climate legislation currently under development.

In our analysis of what was in store in the climate arena for 2020,⁶¹ it was argued that it would be a year for commitment and ambition. Climate diplomacy and political momentum were deemed to be crucial to bridging the gap between commitments and climate goals. It was argued that Nationally Determined Contributions (NDCs) needed to be more ambitious than those submitted in 2015 and that long-term strategies that countries had made the commitment to present in 2020 needed to lead us towards climate neutrality, all of which required unprecedented political capital and ambition.

However, inevitably (and rightly so), the pandemic stemming from coronavirus is taking up the lion's share of every governments' attention. In Italy, which is host to the pre-COP 26, the situation continues to be dramatic and is monopolising the political agenda. In the UK, the former President of the COP 26, Claire Perry O'Neill, was abruptly dismissed and her replacement, Alok Sharma, had at the beginning of march still not established either the strategy or the agenda for the most important climate meeting since Paris.⁶² The postponement of COP 26 might therefore be welcomed by political leaders and

⁵⁸ WMO (2020), 'WMO Statement on the State of the Global Climate in 2019', WMO, nr 1248.

⁵⁹ Callaway *et al.* (2020).

⁶⁰ Xiao Wu, Rachel C. Nethery, Benjamin M. Sabath, Danielle Braun & Francesca Dominici (2020), 'Exposure to air pollution and COVID-19 mortality in the United States', Harvard University, medRxiv 2020.04.05.20054502, doi: <https://doi.org/10.1101/2020.04.05.20054502>.

⁶¹ Lázaro Touza (2020).

⁶² F. Harvey (2020), 'Vital Cop26 climate talks could be derailed by coronavirus', *The Guardian*, 2/III/2020.

negotiators alike in the hope that a few extra months will help garner the political capital necessary to effectively raise climate ambition. Moreover, the restrictions on international travel limit diplomatic efforts. Although part of the diplomatic work is being undertaken virtually, the pressure of face-to-face meetings is inevitably watered down in on-line conversations.

Elsewhere, Trump's withdrawal from the Paris Agreement provides China with a unique opportunity to claim, at least in part, a more prominent role in the currently fragmented climate leadership space, arguably in tandem with the EU. However, the COVID-19 pandemic is likely to limit China's appetite for leadership due to a potentially sluggish economic recovery in the wake of the coronavirus crisis, with a GDP growth rate in 2020 that, while expected to be positive,⁶³ will fail to reach the 6.5% growth target published in its 13th Five-Year Plan. Moreover, the postponement of the COP 15 summit on biodiversity to be held in China (and of its corresponding preparatory meetings)⁶⁴ and of COP 26 might cause a delay in action when it is most urgently needed.⁶⁵

The EU's diplomatic support to the success of the biodiversity negotiations will have to be re-tooled in the current context as growth concerns are front-loaded in current COVID-19 exit narratives, even at the expense of preparing for the climate emergency. The coronavirus is therefore bad news for international environmental negotiations in 2020. An effective and palatable response will require policymakers to weave into their negotiation strategies the links between environmental action (on biodiversity and climate change) and health, via co-impacts. This response will also require the inclusion of the social impacts of environmental action (through Just Transition initiatives). The green financial lever will also be paramount in striking the right balance between a short-term response to the crisis and the medium to long-term recovery and low-carbon transformation to which the international community committed itself in the Paris Agreement.

For its part, at the beginning of March the EU sent the Secretariat of the United Nations Framework Convention on Climate Change a notification of its long-term decarbonisation strategy (LTS). In it, the EU pledged to reach climate neutrality by 2050 in order to meet the Paris Agreement.⁶⁶ Also at the beginning of March, the European Commission set out its proposal for the so-called European Climate Law⁶⁷ as an essential element of the European Green Deal.

⁶³ The IMF's latest projections for China point to 1.2% growth in GDP for 2020. G. Gopinath (2020), 'The great lockdown: worst economic downturn since the Great Depression', IMF.

⁶⁴ Convention on Biological Diversity (2020), 'Process and meetings'.

⁶⁵ J. Pickard, C. Giles & C. Hodgson (2020), 'Travel clampdown threatens Glasgow climate summit', *Financial Times*, 18/III/2020.

⁶⁶ Croatian Presidency of the Council of the EU (2020), 'Submission by Croatia and the European Commission on behalf of the European Union and its Member States. Subject: long-term low greenhouse gas emission development strategy of the European Union and its Member States', Zagreb, 6/III/2020.

⁶⁷ EC (2020), 'Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law)', COM(2020) 80 final, 2020/0036 (COD). It should be borne in mind that the process of public consultation for this law is now open and comes to an end on 1/V/2020.

On paper at least, the EU's actions seem to be aligned with its climate commitments. But if we truly want to make a difference in the current context, at least two issues must be addressed:

- (1) Enticing China to enhance its ambition in its next NDC. This may be done via increased diplomatic support for China's biodiversity agenda, while limiting near-term discussions of the carbon border tax (also known as the border carbon adjustment, BCA),⁶⁸ and suggesting the creation of joint post-COVID-19 working groups to analyse potentially coordinated responses that include the role of green stimulus packages.
- (2) Getting the Paris Agreement implementation mechanisms right, that is, building up a robust climate legislation. The legislative endeavour on climate needs to take on board scientific advice. Despite the European Commission's claim to independence in proposing legislation based on science, its current proposal for a so-called EU Climate Law lacks one of the key elements of the institutional architecture needed to ensure robust climate regulations: it does not include an independent scientific committee to propose emission reduction targets on a regular basis, submit its results to the European Parliament and Council, and evaluate the progress made and hold governments to account.

Although article 7 of the Commission's proposal states that it will base its assessments on the best scientific information available, including the IPCC's reports, it can be argued that there is no truly independent institution that plays the role of an independent advisory body *à la* UK (with its Committee on Climate Change, CCC). Nor does the current climate law proposal require member states to have an independent advisory body, even when many countries have already set them up or are thinking of doing so.⁶⁹ This requirement could serve to anchor climate science at the heart of the EU's climate policy. Moreover, article 7 states that the Commission will base its evaluations on information derived from other sources (the European Environment Agency, European statistics and other information provided by member states) without determining how the coordination between institutions for analysing the information will be arranged. This is a major flaw in the proposal for the so-called European Climate Law. If the coronavirus crisis teaches us anything it is that when we reach a system's limits, not listening to science and allowing ourselves to be guided by *realpolitik* can have disastrous consequences.

In Spain, the declaration of the state of emergency has also become the focus of the government's concern and agenda, as expected. Processes such as providing public information about the Strategic Environmental Assessment of the Integrated National Energy and Climate Plan 2021-30 have come to a standstill,⁷⁰ even though the updated

⁶⁸ Ministry of Ecology and Environment of the People's Republic of China (2019), 'China's policies and actions for addressing climate change (2019)'.

⁶⁹ M. Duwe (2020), 'Climate laws in Europe. Good practices in net-zero management', *Ecologic*, February.

⁷⁰ <https://www.miteco.gob.es/es/cambio-climatico/participacion-publica/eae-pniec.aspx>.

version of the INECP was sent to the European Commission at the end of March.⁷¹ A delay should also be expected in the adoption of the Climate Change and Energy Transition Law and in the presentation of the Long-Term Strategy for a Modern, Competitive and Climate Neutral Spanish Economy in 2050.

In line with the above, it is important to reiterate the need to equip Spain with an independent scientific committee. Following the best practices of, for instance, the UK, such a committee would propose intermediate emission reduction targets between 2030 and 2050, evaluate the evolution of mitigation, adaptation and financing goals, and help Spain's regions (known as Autonomous Communities) to draw up and evaluate their action plans for tackling climate change. This scientific committee could improve the decision-making process of both the current and future governments, require reasoned responses to evaluation reports, lend consistency to government policies, help to advance the integration of environmental policy, also known as 'mainstreaming', and help to improve the transparency and legitimacy of decisions. All this could help to raise the level of public debate by responding to the climate emergency from the perspective of peer-reviewed knowledge.⁷²

(5) Conclusions

While it is difficult to derive any firm conclusions or recommendations in the current period of radical uncertainty, the sections above point to the following tentative proposals.

With regard to the oil and, to a lesser extent, gas markets, the impact of the collapse in demand caused by the coronavirus has been aggravated by the price war between Russia and Saudi Arabia. The abrupt fall in crude oil prices has wreaked havoc on share values in the industry and the bond yields of producer countries, heightening the risk of socio-political instability in those already in difficult straits, such as Angola, Algeria, Ecuador, Iraq, Iran, Libya, Nigeria and Venezuela, among others. The effectiveness of OPEC+ or G20 supply-side solutions seems doubtful until demand starts to recover. Nevertheless, it is a first step to contain market collapse and, more importantly, an unprecedented alliance between OPEC+ and the Western producers that have always opposed the cartelisation of oil supply.

Regardless of the fate of different G20 or OPEC-based alliances, several countries are already implementing oil production cuts due to market circumstances. The 10-15 mbd cut that OPEC+ and the G20 have reached, plus additional IEA purchases of their members' strategic reserves, account for around 20% of world oil production, still far from the 30 mbd reduction in demand anticipated by Goldman Sachs for April. This unprecedented coordinated effort between OPEC+ and IEA members is a significant step in addressing the oil market collapse, signalling how extreme the situation has become. Nevertheless, until the health crisis comes under control, the demand shock

⁷¹ MITECO (2020), 'El Gobierno envía a la Comisión Europea el Plan Nacional Integrado de Energía y Clima (PNIEC) 2021-2030', 31/III/2020.

⁷² Fankhauser *et al.* (2018).

will continue determining the dynamics of the oil and gas markets, and along with it the political and economic developments in producer countries. It is still open to question to what extent the agreement will be implemented and whether it will hold once demand starts to recover.

As far as the impact of the COVID-19 pandemic on the energy transition and the European Green Deal is concerned, it may be concluded that far from constituting a setback, it offers an opportunity to intensify efforts in both issues. One of the clearest economic stimulus measures that can be adopted today in Europe is to speed up the energy transition with an additional impetus for the European Green Deal. Its positive effects on economic activity could be felt in the short term, but it could also be extended into the future by changing the European energy model. EU member states not wishing to take part in this economic strategy against the effects of coronavirus could simply renounce the stimulus packages channelled via the European Green Deal. That said, there are those who say that green stimulus plans are not the only possible economic policy response, especially in the short run. They argue that their green emphasis has to be weighed against other recovery goals regarding the health dimension of the crisis, its social impact and the role of both macroeconomic and other sectoral policies.

We are at a policy crossroads at which we must decide whether to think strategically and embrace green stimulus packages that can help us ride the sixth wave of innovation, in line with our medium and long-term energy transition and climate commitments, or whether to solely focus on short-term responses under the assumption that our current economic model is the best way forward. If past experiences of green stimulus plans could be replicated (eg, as in South Korea post 2008) and we are to effectively respond to the climate emergency in tandem with the COVID-19 pandemic, green stimulus plans globally and the European Green Deal could provide a key opportunity to implement shovel-ready policies. These include NDCs globally and NECPs in the EU. Their speedy implementation would also foster the realignment of financial flows with the goals of the Paris Agreement to which the international community has committed itself.

Lastly, the coronavirus has thrust its way into the process of climate governance at a critical juncture. Science requires that the level of ambition be raised, but political attention will be focussed in the short term on the fight against the pandemic. Moreover, the face-to-face buzz of climate diplomacy is set to be lost in 2020, with major meetings being postponed. Nonetheless, the demotion of climate issues on the political agenda could be used to strengthen climate legislation, in both the EU and Spain, by including scientific climate change committees that would hold governments to account. The temporary reductions in greenhouse gas emissions and air pollution should not induce us to think that we will solve climate change without changing our development model and way of life. If we continue ignoring the warnings of climate science, as we have hitherto ignored warnings to prepare ourselves for a pandemic, it will be at the risk of endangering our welfare and development, as well as that of generations to come.

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