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SUSTAINABILITY LEADERSHIP

CLG Europe

Maximising the benefits:
Economic, employment and emissions impacts of a Green Recovery Plan in Europe

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Introduction

In its January 2020 World Economic Outlook report,[1] the IMF projected the global economy to grow by 3.3 per cent in 2020. By April, the rapid spread of Covid-19 had resulted in this projection being revised downwards, to -3 per cent. Towards the end of June, the figure was down to -4.9 per cent, and the IMF was describing the situation as "a crisis like no other", with uncertain recovery.[2]

These figures highlight the unexpected and unprecedented severity of the impact of Covid-19 on economies and labour markets, in addition to health and wellbeing. While some countries are emerging out of the pandemic with few casualties, the detrimental effect on economic growth and employment has been largely unavoidable, and the scale and nature of the impacts has meant that no sector has been left unaffected.

Measures to stop the spread of the virus – such as the closure of schools, factories and services – have forced businesses across all sectors of the economy to close down or downsize, leaving hundreds of thousands of people without work, and many others in precarious employment situations.[3] The negative effects were initially heavily concentrated in sectors that serve consumers, especially 'social' sectors such as hospitality, but they have since spread wider as a result of declining investment. Around the world, millions of people have come to rely on government support mechanisms.

As we enter the last quarter of 2020, the focus has shifted from assessing and estimating the full extent of the damage to developing plans to support the economic recovery. The desired nature, structure and priorities of these plans are subject to debate at national, European and global levels. Widespread calls – whether by business and economists or from the public – for 'Building back better' and 'Building back greener' express the increasing awareness among the general public of the inequalities that the pandemic has highlighted,[4,5] as well as a growing concern over the full extent of damage that natural degradation can inflict.

At the same time, millions of workers are simply worried about losing their jobs and feeding their families when emergency support schemes are wound down. Getting things 'right' in the economic recovery planning and policy implementation is important, as the impacts of the recovery spending will shape the scale of our economy, its competitiveness, sustainability and its effectiveness in providing inclusive prosperity in the years to come. The impacts will likely last well beyond the current short-term timeframe that policymakers are currently focusing on.

The pressure is mounting on policymakers to implement socially and environmentally responsible recovery packages that avoid repeating the mistakes made in the aftermath of the 2008 financial crisis. This is a pressure that many politicians and policymakers understand and support. In Europe, national governments and the EU administration are increasingly recognising the need to ensure that decisions taken now will support both on the economic recovery and progress towards a prosperous and climate neutral economy by 2050, with strong backing also for raising intermediate emissions reduction targets to better support this long-term target. As we have previously set out in *The Green Deal and Europe's recovery: Building a prosperous, resilient and climate neutral EU through business and political action,*[6] the European Green Deal provides a

template for how Europe's economic recovery can be achieved and green investments can create jobs and kick-start economic activity in the short term, while leading to a more productive, resilient and climate-friendly European economy.

In this report, we draw on Cambridge Econometrics' E3ME modelling[i,ii] results to analyse the potential benefits of a Green Recovery Plan. The modelling assesses the economic, employment and environmental impacts of three different scenarios, including two recovery plans that could both boost GDP and protect jobs:

- A **Covid-19 baseline scenario**, which shows the impacts of Covid-19, and how these impacts are likely to play out in 2020–30 if no recovery plans are put in place. This scenario was developed by Cambridge Econometrics in mid-2020, but has since been updated to take in more recent information, with the macro-level outcomes for each country remaining similar to those predicted by the IMF.
- A **VAT recovery scenario**, which follows a 'return to normal' approach by reducing VAT rates by 5 percentage points to encourage households to resume spending.
- A **Green Recovery Plan**, which aims to boost economic activity while simultaneously reducing CO_2 emissions.

The modelling results show the impacts of these three scenarios in graphical format compared to a no-Covid baseline, illustrating the impact of each recovery scenario in relation to what the situation would have been if Covid-19 had not happened (no-Covid baseline).

The Green Recovery Plan consists of the following policies, which are all implemented for a two-year period (2021–23) and the cost of which is covered by the governments. These measures are combined with a lower VAT reduction rate so they come out at the same cost to government as a VAT reduction alone. The policies in the Green Recovery package are described below, with more detailed information available from the full report Assessment of Green Recovery Plans after Covid-19 and our assessment of different markets in Europe here.

- **Energy efficiency** in buildings is improved to reduce energy consumption in this sector by 8 per cent, primarily through the implementation of energy efficiency measures in 2021–23. This is ambitious but achievable, and would put the EU, for example, on a path that would be consistent with achieving the current 2030 target for building energy efficiency.
- Boosting the uptake of **renewable energy** technologies by offering a capital subsidy of 50 per cent on new wind and solar equipment to incentivise investment during the immediate recovery period.
- Accelerated **electricity grid improvements** through additional government investment.
- Subsidy to cover 20 per cent of the cost of new **electric vehicles** (EVs) for households that scrap their old internal combustion engine vehicles.

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[i] For a more detailed overview of E3ME, see Mercure et al. (2018) or the E3ME model manual.
Mercure, J-F., Pollitt, H., Edwards, N. P., Holden, P. B., Chewpreecha, U., Salas, P., et al. (2018). Environmental impact assessment for climate change policy with the simulation-based integrated assessment model E3ME-FTT-GENIE. *Energy Strategy Reviews*, *20*, 195–208. doi: https://doi.org/10.1016/j.esr.2018.03.003
[ii] Cambridge Econometrics. (2020). *What is E3ME? Our Global Macro-econometric Model*. Retrieved from: https://www.e3me.com/what/e3me/

- A **tree-planting** initiative to plant 10 billion trees worldwide over 2021–23, allocated to countries based on a combination of land mass and the size of the current forestry sector.

The Green Recovery Plan is a stylised version of what a financially, economically and politically feasible recovery package with a green focus might look like, rather than a true reflection of an existing or proposed recovery spending plan. It includes a selection of policy measures that have been either already implemented or proposed in various countries, and that could realistically be implemented.

The results presented in this report provide much needed evidence of the multiple benefits of green recovery spending. They clearly show that spending on sectors that support decarbonisation and the transition to a climate neutral economy can have additional benefits, including positive impacts on economic growth and employment. Moreover, they illustrate how these policies work to generate mutually reinforcing positive outcomes, and how the impacts of specific types of green recovery spending may vary between countries depending on contextual factors.

The policy package is a hypothetical construct but the modelling results can help governments to make informed decisions regarding the nature and structure of recovery spending by demonstrating the multiple benefits that can be derived from a mixture of several different green policy measures. By showing the contribution that each green policy measure can have on GDP, employment and CO_2 emissions in various types of national contexts, the results will also allow policymakers to identify specific green recovery spending options that might be most appropriate in their specific national context or build on extending existing programmes.

Impacts of the Green Recovery Plan for the EU

The EU has expressed a strong intention to make Europe's economic recovery consistent with the achievement of the bloc's longer-term climate objectives. On 21 July, Heads of States and governments approved the European Commission's recovery plan, which aims to mobilise €1.85 trillion through a revamped EU 2021–27 budget of €1.1 trillion and a Next Generation EU fund of €750 billion.[7,8] The recovery plan places the Green Deal, which was announced in December 2019, at its core and aims to make financing instruments and investments consistent with the green and digital transitions. It identifies flagship areas, which have the potential to contribute to the economic recovery and accelerate the transition in key sectors for achieving Europe's climate neutrality objective. In order to benefit from these funds, Member States will need to follow these guiding principles when developing their national resilience and recovery plans, which are due to be submitted by April 2021.

The EU's determination to achieve net zero emissions by 2050 has prevailed through the challenges presented by Covid-19, as evidenced by ongoing support for a more ambitious interim emissions reduction target for 2030. On 17 September, the European Commission proposed to raise this interim target from 40 per cent to at least 55 per cent, heralding a victory to those who have repeatedly underscored the economic benefits of urgent and ambitious policy action on climate.[9]

The modelling results show that a Green Recovery Plan could save 2 million jobs in the EU, while reducing CO_2 emissions by more than 15 per cent. It provides more favourable economic, employment and environmental outcomes than VAT reduction only at the EU level, and these relatively simple measures would give the EU a platform for action to meet its 2030 and 2050 climate targets.

However, because national contextual factors influence the pathways to positive overall impacts, we also provide analysis for individual Member States to highlight some of the variance at the national level. National analysis is available in separate chapters for Germany, Spain and Poland. The results show considerable benefits can be obtained from green recovery policies at both national and EU level.

Socio-economic impacts

The Covid-19 pandemic is expected to cost the EU between 8 and 9 per cent of GDP. Only around half of this loss will be made up by 2030 (see Figure 1).

Both of the recovery packages modelled here (VAT only and Green Recovery) have immediate benefits to GDP in 2021. However, the impacts on GDP are slightly better for the Green Recovery Plan in the short term, and much better by 2030. This is in part driven by reductions in fuel imports to Europe as a result of lower demand for motor fuels (due to greater uptake of EVs) and natural gas for domestic heating (due to improved building energy efficiency), as well as increased renewable electricity generation capacity. The positive economic impact of reduced dependence on fuel imports outlasts the initial investment stimulus.

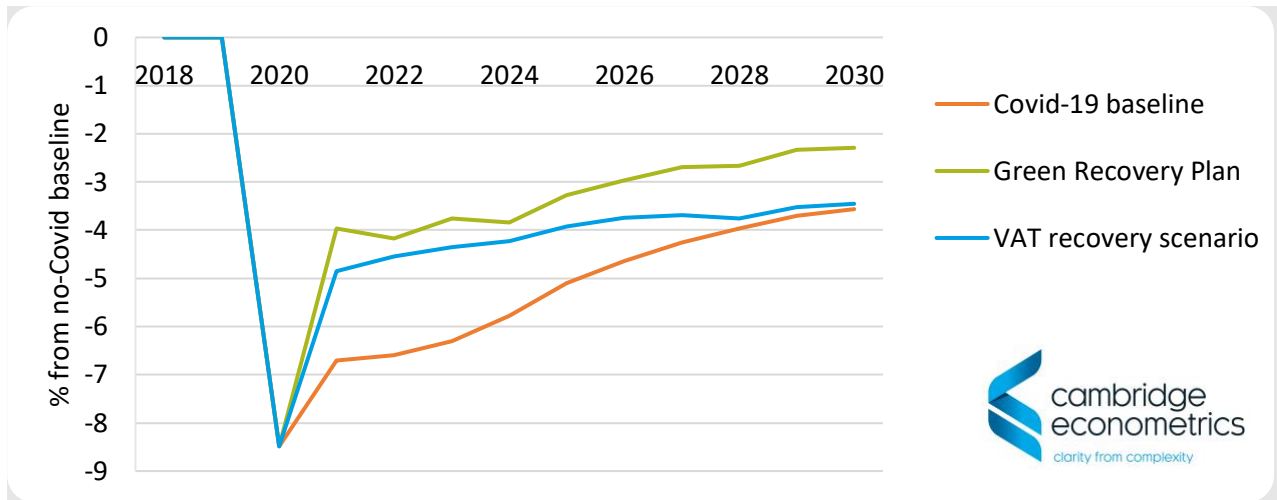Figure 1: GDP impacts in the EU (% difference from no-Covid baseline)

Figure 2 shows the impacts on employment. Without support, a prolonged slump in employment to 2023 is possible (Covid-19 baseline scenario). The VAT recovery scenario and Green Recovery Plan are both effective at stopping the slump getting worse, but the Green Recovery Plan achieves better employment outcomes than the VAT scenario. The Green Recovery Plan also has long-term benefits for employment levels in the EU, with the potential to save two million jobs, and the employment impacts gap between the two recovery policy options widens towards 2030.

Figure 2: Employment impacts in the EU (% difference from no-Covid baseline)
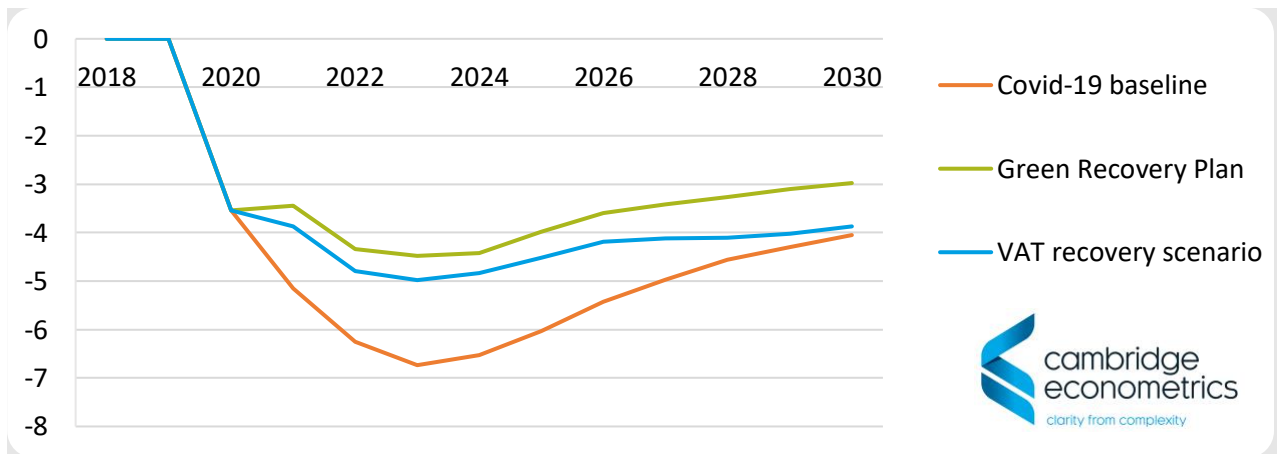
Sectoral impacts

Table 1 shows the impacts of Covid-19 and the recovery plans on each sector in 2024. Consumer services were initially severely affected by the pandemic, but a loss of investment means that manufacturing and construction have also been hit hard.

The VAT recovery scenario largely benefits the consumer services sector (which can lower prices if VAT is reduced). However, the results for most sectors are better for the Green Recovery Plan, because this also brings back lost output in manufacturing and construction, for example driven by renewables construction and purchases of EVs. Improved energy efficiency does somewhat negatively impact the energy and utilities sector under the Green Recovery Plan.

Table 1: Sectoral output impacts in the EU (2024), % difference from no-Covid baseline

|	Covid-19 baseline	VAT recovery scenario	Green Recovery Plan
Agriculture	-3.2	-1.9	-0.9
Energy and Utilities	-4.8	-3.6	-6.3
Basic Manufacturing	-7.1	-5.8	-4.5
Advanced Manufacturing	-11.8	-11.0	-9.6
Construction	-9.8	-9.3	-8.0
Consumer Services	-6.7	-4.6	-4.1
Transport and Comms.	-4.6	-3.4	-4.8
Business Services	-4.6	-3.2	-2.7
Public Services	-1.1	-0.6	-0.3

The energy and utilities sector includes a range of different types of companies, some of which focus more heavily on renewable energy than others. Our view is some power generators with a strong presence in renewables would significantly benefit from a Green Recovery Plan. The emissions reductions figures presented in Figure 3 would support an assumption that reduced demand for energy (for example as a result of improved energy efficiency) would result in fossil fuels are replaced by renewables.

Emissions impacts

Figure 3 shows the impact of the scenarios on CO_2 emissions. The estimated reduction from Covid-19 (Covid-19 baseline) in this graph presents a conservative estimate and disappears almost entirely by 2030. Moreover, it does not include the early closure of some coal plants.

The Green Recovery Plan shows a large reduction in emissions, exceeding 15 per cent by 2030. All of the green policy measures contribute to this reduction (see Figure 4), although some more than others. It is noticeable that reductions in emissions continue after 2021–23, indicating the long-term benefits of establishing low carbon technologies in the European market.

Figure 3: Emissions impacts in the EU
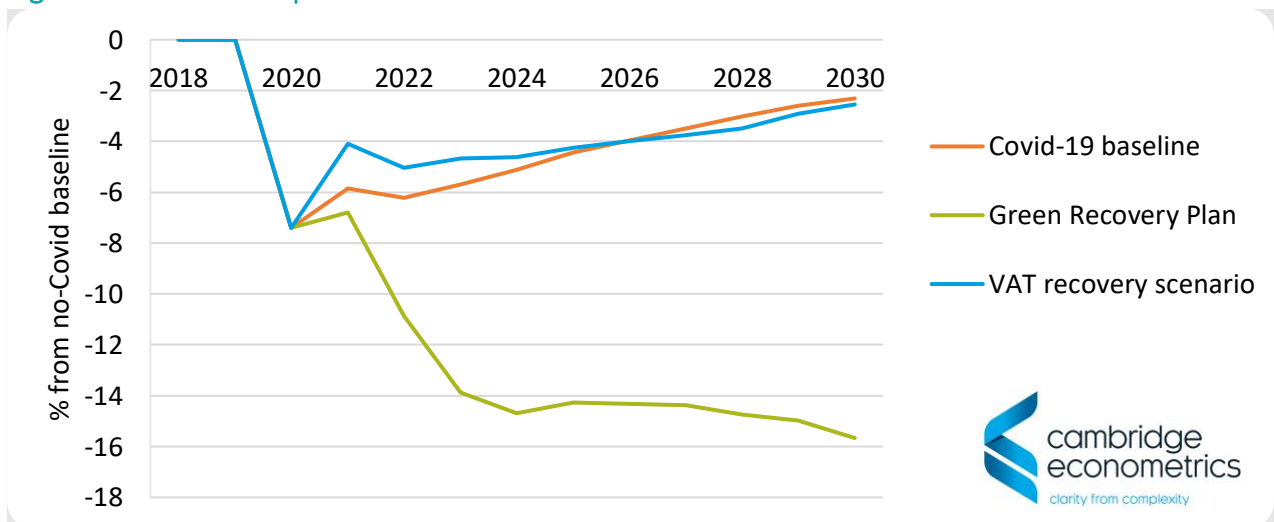
Contributions of each policy

Figure 4 shows the relative contribution of each environmental policy to the aggregate outcomes in the Green Recovery Plan across 2021–30.

The largest contribution to GDP comes from the car scrappage scheme that promotes EVs. The extent of this impact is influenced by the fact that EVs are still at a relatively early stage of development in the EU, and thus even a relatively minor increase in the early uptake of EVs as a result of the subsidies has a substantial impact on the long-term trajectory of EV uptake in Europe even after the subsidies are phased out.

The impact of renewables subsidies on GDP and employment is less pronounced, largely because renewables are already well established in Europe. While the subsidies would mean that more renewables are built in 2021–23 than would otherwise have been the case, the employment and GDP impact is short-lived.

Energy efficiency investment creates activity over the crucial period 2021–23 (during which time the measures are implemented) but less thereafter, resulting in its impact on employment and GDP being less pronounced over a longer observation period shown in Figure 4.

Overall, at the EU level, the contribution of each policy to jobs is similar to that for GDP, apart from the more pronounced employment impact of the tree-planting programme. This discrepancy emerges because the jobs related to tree planting are lower skilled than those related to EVs, which means that the same amount of funding can create more jobs in tree planting.

The right-hand bar on the figure shows that the biggest contribution to reducing emissions comes from the renewables subsidies, which push large amounts of coal power in Europe out of the market, resulting in substantial reductions in total emissions. The energy efficiency and EV promotion also make a large contribution to the total, with tree planting accounting for the remaining 14 per cent of emission reductions.

Figure 4: Contribution of each Green Recovery policy in the EU (2021–30)
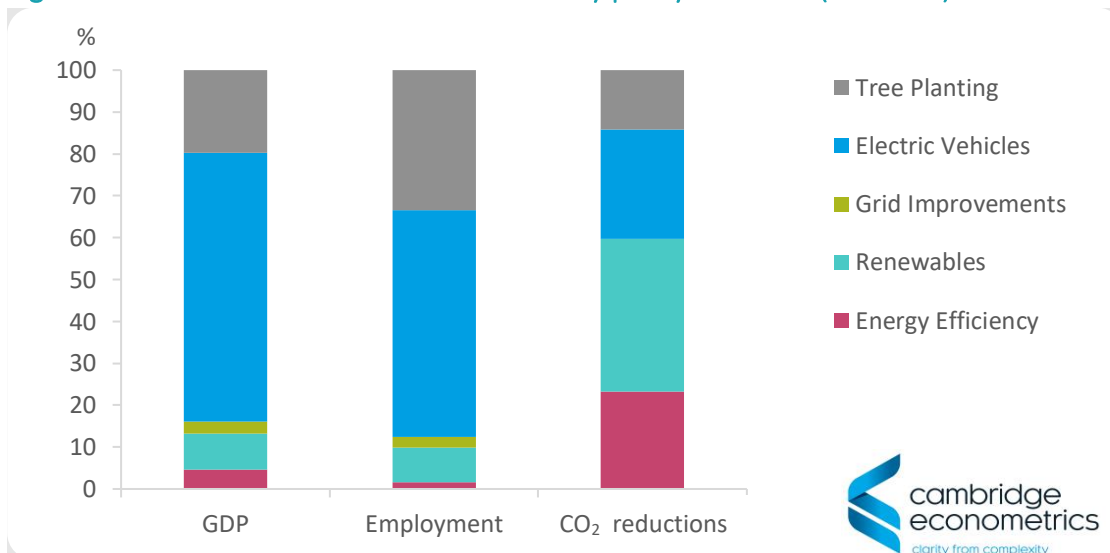
"*The buildings we live and work in are Europe's largest source of emissions. That's why we need to at least double building renovation rates this decade if we are to meet a 55% emissions reduction goal. The good news is the EU is on the right track. Hundreds of billions of euros are being made available for a sustainable green recovery, and ROCKWOOL is active at European and national levels to ensure a fair share of the funds is allocated to renovation. Per euro invested, nothing beats buildings for climate and economic impact: closing the finance gap needed to double renovation rates would support over 3 million new local jobs per year. That makes buildings a linchpin of climate action and the green recovery.*"

Mirella Vitale
Senior Vice President, ROCKWOOL Group

"*When a greater part of the world is committing to becoming net-zero in the middle of this century, this is the opportunity, perhaps the clearest we have ever had, to create a true industrial competitive advantage for Europe. A differential value for success in the global economy in the coming years.*"

José Luis Blasco
Global Sustainability Director, ACCIONA

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