How policymakers can help achieve a resilient recovery with the circular economy

Circular economy policies can play a vital role in recovery packages by stimulating value creation and economic resilience. Prior to the pandemic, a number of governments were taking steps to promote a circular economy approach, recognising that a new economic model is required that is less wasteful and environmentally damaging, as well as less dependent on globalised linear supply chains and cheap virgin raw materials. The need to better value resources that are already in use has become apparent, as is the need to regenerate natural systems. In the aftermath of the Covid-19 crisis, it is crucial for policymakers to address the global systemic risks of our current linear economies as they pursue to deliver more jobs and equitable growth in the short-term, and reduce long-term risks linked to climate change and biodiversity loss.
Introduction

The world is facing an unprecedented global crisis, highlighting the shortcomings of our current system. In the space of just a few months, the Covid-19 pandemic swept across the world restricting the movement of millions of people, impacting lives and jobs, disrupting international supply chains, and bringing global economies to a halt. In doing so, the pandemic and the lockdown measures have revealed our system’s exposure to a variety of risks, and triggered the most severe economic recession in nearly a century. It has also revealed our limited ability to contain and adapt to the systemic risks posed by the pandemic within a highly interconnected world relying on rapid and frictionless global flows of people, goods, and information. Moreover, the current crisis has highlighted the many shortcomings of our linear system. This is a system where resource extraction and waste production, which are inherent to the way we make and produce goods, continue to cause untenable environmental degradation, climate change, biodiversity loss, and pollution.

How governments act today will shape the post-Covid-19 world for generations to come. With the Covid-19 pandemic revealing the vulnerability of global systems to protect the environment, health, and economy, many voices from governments, businesses, and civil society have been calling for a response to the devastating impacts of the pandemic that is inclusive and does not turn attention away from other global challenges. An alliance of 180 European politicians, business leaders, MEPs, and environmental activists have, for example, urged that investments are directed towards the shaping of a “new European economic model: more resilient, more protective, more sovereign, and more inclusive.” Over 100 investors, representing EUR 11.9 trillion in assets either managed or advised, have also called on European business and finance leaders to ensure a green recovery be delivered. These calls are taking place at a pivotal time, since investments and policy actions will determine the direction of economic recovery both in the short-term and the long-term. The pandemic may also be reconfiguring the roles of state and market actors for years to come.

A circular economy offers a tangible pathway towards a resilient and low-carbon economic recovery. With around USD 10 trillion in economic stimulus being unveiled by governments all around the world, there is an unprecedented opportunity to “move away from unmitigated growth at all costs and the old fossil fuel economy, towards a lasting balance between people, prosperity, and planetary boundaries.” European Commission President Ursula Von der Leyen presented such a vision for Europe by saying, “We will need to ‘bounce forward’ and not ‘bounce back’. And we will need to build a resilient, green and digital Europe. At the heart of this will be our growth strategy, the European Green Deal, and the twin transition and opportunity of digitalisation and decarbonisation.” As an integral part of this European strategy, the circular economy is a framework for resilience and regeneration that delivers on multiple policy objectives. The transition is called for by policymakers, CEOs, and other influential individuals mobilising businesses and governments around the world to join the journey towards achieving a resilient recovery with the circular economy in response to the economic impact of the coronavirus pandemic. It will require the rethinking, resetting, and redesigning of the economy from one that is merely reactive in a time of crisis to one that is prosperous, inclusive, low carbon, and mitigates the risk of future crises.

To meet these short- and long-term ambitions through a circular economy, policymakers have four key roles to play:

1. **Setting a common direction of travel**: a resilient recovery with the circular economy
2. **Making the economics work** to enable a circular economy
3. **Unlocking circular investment opportunities** to meet key public priorities
4. **Fostering collaboration** to obtain system-level solutions

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1. Covid-19 triggered the most severe economic recession since the Great Depression in the 1930s, with GDP declines of more than 20% and a surge in unemployment in many countries. OECD, *OECD economic outlook: the world economy on a tightrope* (June 2020)
Setting a common direction of travel: a resilient recovery with the circular economy

There are still many uncertainties about how the economic landscape will evolve. The many uncertainties that remain around the Covid-19 virus and its potential cure—through a vaccine or a widely available treatment—are still weighing on the economy and people’s lives and livelihoods. There are also uncertainties around the economic impact of the pandemic, the policy responses, the speed of recovery, and the extent to which pandemic-induced shifts will persist in society e.g. shifting consumer patterns, business travel, working from home. As a result, macroeconomic projections are showing massive divergences, and while policymakers are providing unprecedented support to households, firms, and financial markets, uncertainty remains which is “toxic for an economic recovery.” The finance sector and business leaders lack visibility for future investments. It is therefore important to establish clear policy visions and strategies towards a new economic model for long-term prosperity and resilience.

Ambitious policies will be needed that not only focus on short-term ‘rescue’, but also on long-term ‘recovery’ efforts. Studies have shown that the vast majority of the policies for economic stimulus—that have already been implemented in G20 countries since the onset of the pandemic—are more ‘rescue’ than ‘recovery’ policies, paying limited attention to climate, sustainability, and resilience. Many countries around the world are still prioritising ‘brown’ stimulus packages over ‘green’ ones, relaxing, for example, laws around controlling pollution and standards for vehicle energy efficiency. Only a few of the member states of the European Union, the United Kingdom, and Canada are attaching some conditions to ensure stimulus packages dedicate attention towards shaping a more sustainable transition. Ambitions and critical actions will, however, be needed by governments that not only focus on safeguarding national economies during crises, but that also pave a way forward towards a wider economic reform that is more resilient against future global risks.

Circular economy policy strategies provide a pathway towards a resilient and low carbon economic recovery. The circular economy—as an instrument to decouple economic growth from resource use and environmental impact—can help shape a pathway towards a more resilient and low-carbon economic recovery. It is a pathway that must, however, be supported by complementary policies to enable a more inclusive and ‘just transition’ that reduces inequalities within and between countries, leaving no one behind. The circular economy also acts as a delivery mechanism for achieving mutually reinforcing economic, social, and environmental objectives; addressing challenges and policy objectives that are interlinked. It does so by fostering innovation and competitiveness, increasing productivity, reducing resource dependency and environmental impact, increasing resilience, and creating new jobs. As an example, a comprehensive circular economy approach for the plastic sector has the potential to reduce the annual global volume of plastics entering our oceans by over 80%, generate savings of USD 200 billion per year, reduce greenhouse gas emissions by 25%, and create 700,000 net additional jobs by 2040. As such, the circular economy, in taking a systemic approach to tackling global challenges, can help ensure a stronger recovery that is not only more resilient and prosperous, but also meets multiple policy objectives, both in the short- and long-term. The EU is, for example, paving such a way by committing to the European Green Deal—where the Circular Economy Action Plan prominently features—as the roadmap to economic and social recovery post Covid-19.
Making the economics work to enable a circular economy

Pricing negative externalities can help level the playing field and scale the circular economy. The prevailing economic and financial frameworks are hardwired for and by the linear economy. In seeking out circular economy opportunities, companies can face multiple market failures including unpriced negative externalities, transaction costs, split incentives, imperfect information, insufficient public goods or infrastructure, and insufficient competition. Unpriced negative externalities often take place across virgin material extraction, product use, and disposal which do not reflect their full associated environmental and social costs. This is particularly apparent with fossil fuels with, for example, the fuel used in international aviation and maritime transport being generally exempt from carbon pricing initiatives. To pave the way towards a low-carbon Covid-19 recovery, the OECD has—in its lessons learned from past green stimulus packages—emphasised that both the removal of fuel subsidies and the introduction of long-term carbon pricing will be needed to help align price signals with green stimulus packages. Together such measures can help accelerate the recovery, and improve resilience to future shocks from climate change. In addition, integrating ‘linear’ externalities and risks into financial risk models for disclosure to potential investors, can enable (international) financial institutions to further stimulate the transition to a circular economy.

A conducive environment for a circular economy can be created by reshaping the fiscal landscape. Policymakers can use subsidies to promote future areas of growth and employment, and incentivise producers to minimise their resource dependency by exploring circular opportunities. However, much of the subsidies today still go towards unsustainable production systems. When it comes to energy, for example, more than twice the amount of subsidies are going to fossil fuels (USD 478 billion in 2019) compared to renewables. Subsidies that are environmentally harmful should be phased out as these could hinder a swift transition to a circular economy and the tackling of challenges such as climate change.

Another key measure is the shifting of taxes from labour to the use of finite resources. This could play an important role in the valorisation of (finite) resources, and the stimulation of labour intensive circular business models such as R&D, repair, maintenance, and recycling. A 2016 study by The Ex’tax project has, for example, shown that by 2020, switching taxes from labour to pollution and resource use could increase GDP by 2%, create 6.6 million more jobs, and cut carbon emissions by 8.2%. Specific fiscal support can also play a vital role in stimulating innovation and incentivising circular economy practices. Reducing taxes such as value added taxes on reuse, repair, and remanufacturing activities can incentivise circular designs and business models and support the circulation of valuable goods, materials, and nutrients. Other fiscal measures can increase the use of secondary materials and encourage the adoption of regenerative food production. While these instruments are increasingly being put in place, more will be needed to help accelerate the transition.

As governments look to achieve a resilient and low carbon economic recovery, there is an opportunity to restructure SME and wider business support schemes. Governments can help guide the transition to a cleaner and more resilient recovery by attaching conditions within, for example, stimulus packages, state aid, and bailout funds. This can help increase the uptake of certain practices or technologies that contribute to a better recovery. In Austria, for example, the government has asked airlines to commit to reducing carbon emissions as a condition for its support, and in France, a EUR 7 billion package of state-guaranteed loans for Air France, in which the government is a shareholder, comes with the requirement that the airline reduces domestic CO2 emissions by 50% by 2024. When it comes to SMEs, the dramatic and sudden loss of demand and revenue that followed the pandemic has caused many businesses to face severe liquidity shortages. Public financial support (amongst others) will therefore be essential to help SMEs bounce back or even survive the impacts of the pandemic. While policymakers in the EU, in response to this challenge, have increased budgets for direct public support mechanisms and SME subsidies, many

ii SMEs provide 70% of jobs in countries around the world and about half of economic activity. International Trade Centre, SME competitiveness outlook 2020 – COVID-19: the great lockdown and its impact on small business (2020)
of these tend to only focus on short-term liquidity needs. However, to shape a stronger and more resilient long-term recovery, there is an opportunity to restructure SME schemes. For example, schemes could be provided that help businesses leverage circular economy principles to improve their competitiveness and environmental performance, leverage digital technologies, achieve inclusivity, and strengthen their resilience against future shocks. The pandemic has also shown the importance of local value chains, while reliance on stretched international supply chains is now being perceived as riskier. Governments therefore also have a role to play in supporting businesses that offer more localised, diversified, and distributed production—through repair, refurbishment, remanufacturing, and local production—as they can help pave the way towards a more resilient future that enhances the economic development of communities. In achieving these cross-cutting objectives, the circular economy acts as a key delivery framework.
Shifting public investment towards key priorities

All aspects of finance will play an important role, not only in the immediate response to the Covid-19 crisis, but also in the recovery phase, supporting the transition to a more resilient economy. Investors, banks, and other financial services firms have the scale, reach, and expertise to support businesses to make the shift towards a circular economy. This is not just about investing in perfectly circular companies or divesting from extractive ones, but about engaging and stimulating all companies, across industries, in their transition. Governments, central banks, and financial regulators will complement and enable the private sector shift.

Investments will be needed to help deliver a resilient and low carbon economic recovery. Trillions in economic stimulus are being unveiled by governments around the world which creates a unique opportunity to channel public investments to help achieve a resilient recovery with the circular economy. While the EU sees its Green Deal as the “motor of the recovery”, there are to date few concrete investment plans in place despite the wealth of opportunities. Many organisations have suggested concrete actions, with the Oxford Review of Economic Policy, for example, pointing out the five most important policy areas in this context: clean energy infrastructure, building efficiency retrofits, education and training for workers, natural capital investments, and clean R&D.

In this series of ‘Insight papers’ focused on the circular economy and the Covid-19 recovery—of which this paper forms a part—the Ellen MacArthur Foundation has highlighted the investment opportunities for resilience and prosperity as the post-Covid-19 recovery plans are being shaped. By building on the Foundation’s research over the past years, ten attractive circular economy investment opportunities have been selected that spread across five key sectors:

**The built environment**
- [1] Renovation and upgrade of buildings

**Mobility**
- [4] Refurbishment, remanufacturing, and repair infrastructure in the automotive industry

**Plastic packaging**
- [5] Innovative reuse business models for plastic packaging
- [6] Collection, sorting, and recycling infrastructure for plastic waste

**Fashion**
- [7] Rental and resale business models in the apparel business sector
- [8] Collection, sorting, and revalorisation infrastructure for textile waste

**Food**
- [9] Tools enabling farmers to shift to regenerative agricultural production models
- [10] Collection, redistribution, and valorisation infrastructure of food surplus and by-products

**Governments and financial institutions can directly invest in circular economy activities and breakthrough innovations.** Governments can align taxes and subsidies to promote growth and employment in ways that favour a circular economy approach (see section on ‘Making the economics work to enable a circular economy’). However, public institutions can also invest directly in certain economic activities and sectors, including by issuing loans and guarantees at favourable rates, setting price controls, and providing resources like land and water at below-market rates. As an example, the European Investment Bank has launched a Joint Initiative on the Circular Economy that will make available EUR 10 billion in investments from 2019 to 2023. The initiative will provide “loans, equity investment, or guarantees to eligible projects, and develop innovative financing structures for public and private infrastructure, municipalities, private enterprises of different size, as well as for research and innovation projects”.

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iv Each sector has been independently explored in a series of ‘Insight’ papers which can be found at the Ellen MacArthur Foundation page: Policy & investment opportunities shaping a resilient and low-carbon economic recovery.
In addition, public procurement processes that integrate circular economy criteria will also be vital tools to shift investments in the private sector. Given governments’ large purchasing powers, making it mandatory in tenders for public procurement to use, for example, recycled materials that are compatible with a circular economy, can create demand and accelerate the transition. More broadly, such measures can make circular designs and business models the default options in public procurement, strengthening the demand for circular economy products and services, as well as for more flexible buildings and infrastructure designs. As an example, Amsterdam has developed its Roadmap for Circular Land Tendering that includes 32 performance-based indicators for circular economy building developments. The city developed such a circular land tender process in the Zuidas area where a multifunctional mixed-use building will be designed to include a material passport, reclaimed resources, and design for disassembly, alongside the highest BREEAM sustainability standard. At a regional level, the European Commission is setting out several actions in the Circular Economy Action Plan to help facilitate the integration of circular economy principles in public procurement.

Governments and financial regulators can enhance transparency by providing standardised definitions and metrics for circular economy investments. A good example is the common classification system or ‘taxonomy’ under development in the EU which is being created to encourage private investment in sustainable growth and a climate neutral economy. Providing policymakers, businesses, and investors with a common language on circular economic activities that substantially contribute to a low carbon and resilient recovery, can help scale the efforts of all stakeholders involved, track progress, and eventually evaluate the impacts achieved. This could be of particular use in blended finance solutions where public and private capital come together to help fund circular economy infrastructure and innovation.

Central banks can explore the possibility of adjusting their bond buying activities and financial modelling practices to support the transition to a circular economy. While the less conventional method of quantitative easing (QE) has its limits in the current low-interest situation—and its effectiveness to stimulate the economy is still debated, central banks could potentially explore green quantitative easing (QE). It could act as a tool to help lower the cost of borrowing for circular economy projects, as well as stimulate central banks to buy more green bonds with positive environmental impacts. For example, the circular economy could be considered as a key delivery mechanism in the European Central Bank’s examination of the potential of using its trillion-euro asset purchase scheme to pursue green objectives, or the European Banking Authority’s work on a green supporting factor. More broadly, central banks and financial regulators could also benefit from integrating not only climate change into their risk assessments and financial modelling, but also the potential of the circular economy to address these risks in a resource constrained world. In fact, the circular economy could inform scenario analyses on fundamental solutions, such as the redesign of products and services, that complement the current focus on supply-side changes, with demand-side measures (e.g. car electrification versus car-sharing models).

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v Public procurement represents an average 12% of GDP in OECD countries and 30% of GDP in developing countries. The One Planet Network, Making sustainable public procurement part of the COVID-19 fiscal response (29th June 2020)

vi BREEAM is the world’s leading sustainability assessment method for master planning projects, infrastructure, and buildings. It recognises and reflects the value in higher performing assets across the built environment life cycle, from new construction to in-use and refurbishment.
A global crisis requires international and well-coordinated recovery efforts. The Covid-19 pandemic has affected us all in varying degrees and an international coordinated response will be of vital importance. Strong public–private collaboration will be essential in the shaping of a post-pandemic future that ushers in redefined growth towards a next wave of prosperity, while also improving society’s resilience to future shocks. Such a transition, enabled through a circular economy, will, for example, require collaboration between governments, the investment community, industries, companies, academia, and civic organisations. International institutions can play a convening role in this. A good example of international collaboration around common environmentally related challenges is the Fourth United Nations Environment Assembly (UNEA-4), which in 2019 focused a session on “Innovative solutions for environmental challenges and sustainable consumption and production”. The conference brought together five heads of state and government, 157 ministers and deputy ministers, and almost 5,000 participants from 179 countries, which led to a Ministerial Declaration and 26 thematic resolutions on topics such as: sustainable consumption and production (SCP); resource efficiency, chemicals, and waste; biodiversity and ecosystems; environmental governance.

An integrated and collaborative approach is needed to tackle global systemic challenges. As expressed by the Institute of Advanced Sustainability Studies, “the governance of systemic risks, and of pandemics in particular, is a genuinely interdisciplinary undertaking”. However, the siloed way of working is quite ingrained within many political systems and in the way in which societal challenges are being tackled. As an example, a study has emphasised how policies—that were pursued during the 2007–2009 financial crisis and the subsequent European debt crises that peaked in 2011–2012—failed to achieve the integrated objectives that were set, due to policymakers addressing priorities, like employment and growth, in isolation. With regards to the circular economy, the risk that strategies are being narrowed down to waste management policies—while sitting in isolation from the rest of economic policymaking—remains high. Instead, an integrative and collaborative approach is needed to help manage system-level challenges that are transboundary by nature. From a circular economy perspective, it will require working with cross-cutting thematic teams or departments, bringing a new lens, and helping unearth new solutions that meet multiple policy objectives. The circular economy could, for example, be mainstreamed into cross-cutting policies (such as infrastructure, mobility, and urban planning) and thematic strategies (such as industrial renewal, climate change, resilience, and nature-based solutions), helping reinforce synergies that can help address key priorities such as employment, growth, and decarbonisation. This can help support the emergence of a common vision, and enable the transition benefiting from the expertise and leadership of different actors.

Cross-border transactions will continue and integrating circular economy practices into trade policies is a key area for future engagement. Transitioning to a more circular economy will inevitably have implications on a global scale. However, to ensure circular economy practices are integrated into trade policies, improved policy coherence will be needed. This could include: the better harmonisation of recovery programmes; standardising definitions and standards; reviewing regulatory systems; improving the integration of circular economy into EU trade policy and free trade agreements; championing trade incentives for circular economy goods, by supporting an international agreement on removing trade barriers to environmental goods (EG); and increasing cooperation between countries.

The circular economy is a ‘systems approach’ to economic development. It often involves stakeholders from across the entire value chain and collaboration to help rethink the way in which products are made and used. As discussed in the paragraphs above, global challenges are too complex to be approached with isolated efforts. When it comes to complex challenges around materials streams like plastics, textiles, or food, high levels of commitment, and incentives and actions at pre-competitive level are, for example, needed from those with a stake in the way materials cycle in the economy. For example, the Jeans Redesign—created by the Ellen MacArthur Foundation’s Make Fashion Circular initiative—brought together more
than 40 denim experts from academia, brands, retailers, manufacturers, collectors, sorters, and NGOs, to co-develop guidelines\textsuperscript{viii} for what ‘good’ looks like for jeans.

In its proposal for A New Industrial Strategy for Europe,\textsuperscript{53} the European Commission has also acknowledged that policymakers need to look closely at the opportunities and challenges facing industrial ecosystems. These ecosystems encompass all players operating in a value chain, each having their own specific expertise, and carrying different research and innovation skills. The European Battery Alliance is a good example of this, bringing together more than 120 European and non-European stakeholders representing the entire battery value chain. This has led the EU to become an industrial frontrunner in this key technology. Moreover, alliances can also help steer work and help finance large-scale projects with positive spill-over effects across Europe, using the knowledge of SMEs, big companies, researchers and regions to help remove barriers to innovation and improve policy coherence.

Building circular economy knowledge and capacity will be essential to help accelerate the recovery. For example, the United Nations Economic Commission for Europe (UNECE) is mobilising experts—from their network of eight International Public–Private Partnership (PPP) Specialist Centres—to develop knowledge and guidance on PPPs to help build back stronger from the Covid-19 pandemic.\textsuperscript{54} Together there is an opportunity to rebuild confidence, demonstrate a clear and unambiguous way ahead, and pave a better and more resilient future.\textsuperscript{55} As seen in the built environment where disruptive technologies that enable circular practices—such as durable and flexible design, and industrialised processes of construction—could be applied much more if the capabilities and skills necessary to do so were common throughout the industry.\textsuperscript{56} With the circular economy not yet mainstream, this is a common challenge for many sectors and departments.

\textsuperscript{viii} The Jeans Redesign Guidelines set out minimum requirements on garment durability, material health, recyclability, and traceability. Based on the principles of the circular economy, the guidelines will work to ensure jeans last longer, can easily be recycled, and are made in a way that is better for the environment and the health of garment workers.
In the unprecedented response to the Covid-19 pandemic, trillions in economic stimulus have been made available around the world while the calls for a recovery that is in alignment with other global challenges, have never been louder. As a result, the circular economy has emerged as more relevant than ever, offering a tangible pathway towards achieving a resilient and low carbon economic recovery. Ambitions and critical actions will be needed by governments that not only focus on safeguarding national economies during crises, but that also pave a way forward towards a wider economic reform that is more resilient against future global risks. To ensure such a recovery with the circular economy, policymakers have four key roles to play. There will be a need to set a clear direction for the recovery by creating visions and strategies based on a new economic model for long-term prosperity and resilience. To achieve this, making the economics work, to enable a circular economy by leveraging various fiscal tools, will be essential to help scale efforts. At the same time, fostering collaborations to break through siloed thinking, and shifting public investment towards short- and long-term priorities through public procurement and direct investment, will also be vital in the coming months and years. By embracing these roles, policymakers will be instrumental in enabling the transition to the future economy we need; one that is more resilient, prosperous, and inclusive, achieving the multiple public policy objectives of the 21st century while mitigating the risk of future crises.
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