







THINK 2030

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AUTHORS

Marianne Kettunen and Eline Blot (Institute for European Environmental Policy)

CORRESPONDING AUTHOR

Marianne Kettunen (mkettunen@ieep.eu)

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About this policy paper

This policy paper outlines the current trends in global and EU trade flows with focus on sectors identified in the EU Circular Economy Action Plan (CEAP). It aims to determine the implications of COVID-19 pandemic on global economy and trade, identifying related possible opportunities or obstacles to circular economy.

Building on the above, the paper highlights how EU trade policy can support creating global partnerships and action on circular economy, including as part of the EU and third country recovery plans.

Introduction

"The extraction and processing of natural resources has accelerated over the last two decades, and accounts for more than 90% of our biodiversity loss and water stress and approximately half of our climate change impacts. Over these last 50 years we have not once experienced a prolonged period of stabilization or a decline in global material demand."

Global Resource Outlook 2019 –

Circular economy is seen as the key global strategy for future resource use, with a view to shift to living within the boundary of world's finite resources. For example, 90% of global biodiversity loss and water stress are caused by resource extraction and processing¹, meaning that cutting down such needs through circularity can significantly reduce pressures on ecosystems.

Circularity is also seen as a prerequisite for climate neutrality, with a great bulk of total carbon emissions globally related to how we make and use products and produce food. For example, 45% of Europe's climate emissions are associated with making products².

The EU is taking the global lead in promoting the transition to a low-carbon circular economy. This is clear from the ambitious EU Circular Economy Action Plan (CEAP) adopted in March 2020 as part of the EU Green Deal. The plan acknowledges the need to address the block's resource consumption and to reduce environmental pressures driven by consumption, with sustainable product policy, supported by demand side tools such as Green Public Procurement (GPP) criteria, as key elements to achieve this. Value chain and sector-specific actions targeted by the strategy include electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, and food, water and nutrients. As such, the EU CEAP is the most comprehensive and concrete plan for a shift to a circular model currently adopted globally.

Trade and trade policy are a key interface between the EU and the rest of the world when it comes to advancing the circular economy. Production and consumption, materials, goods, services and data are linked through global trade and value chains. Trade

¹ IRP (2019). <u>Global Resources Outlook 2019</u>: Natural Resources for the Future We Want. Oberle, B., Bringezu, S., Hatfeld-Dodds, S., Hellweg, S., Schandl, H., Clement, J., and Cabernard, L., Che, N., Chen, D., Droz-Georget, H., Ekins, P., Fischer-Kowalski, M., Flörke, M., Frank, S., Froemelt, A., Geschke, A., Haupt, M., Havlik, P., Hüfner, R., Lenzen, M., Lieber, M., Liu, B., Lu, Y., Lutter, S., Mehr, J., Miatto, A., Newth, D., Oberschelp, C., Obersteiner, M., Pfster, S., Piccoli, E., Schaldach, R., Schüngel, J., Sonderegger, T., Sudheshwar, A., Tanikawa, H., van der Voet, E., Walker, C., West, J., Wang, Z., Zhu, B. A Report of the International Resource Panel. United Nations Environment Programme. Nairobi, Kenya.

² Ellen MacArthur Foundation (2019). Completing the Picture: How the Circular Economy Tackles Climate Change.

policy provides the framework for businesses both to innovate and to export and import new and different circular goods and services in markets across the world.

The future transition to a more circular economy in the EU will inevitably impact trade and, through trade, socio-economic development of countries most reliant on exporting their goods and services to the EU. Furthermore, the success of EU's circular endeavours in influencing a global shift to the circular economy will depend on how EU's trade partner countries react and respond to the policy measures taken by the EU. Be it through coordinated endeavours with like-minded trading partners or though supporting developing countries, a concerted effort is necessary to launch the global circular economy.

For the circular economy transition to become global – with related benefits to sustainability distributed fairly across the globe – dedicated well-informed global cooperation is necessary. EU's plan to show global leadership in circularity can only work if there are allies to cooperate with, with EU trade partner countries from developed to developing world playing a key role.

Innovating circular economy businesses in the EU and its Member States will bring only limited success without a clear plan to which global markets these businesses would be exporting to, or which markets they can rely on for their secondary raw material, technological and service sector related needs. Within a "mapped out" global circular framework businesses are able to innovate with more certainty, leading to the development - and export – of low-carbon, low-material footprint products and technologies. Cooperation on circular economy between trade partner countries helps with the development of a joint vision, mutual policy action and harmonised standards that then enable the EU and its partners to become the first circular economy movers and players, setting the agenda for the rest to follow.

This policy paper outlines the current trends in global and EU trade flows with focus on sectors identified in the EU CEAP. In this context, it aims to determine the implications of COVID-19 pandemic on global economy and trade, identifying related opportunities or obstacles to circular economy. Building on the above, the paper highlights how EU trade policy can support creating global partnerships and action on circular economy, including as part of the EU and third country recovery plans.

The EU's circular impact in the global context

"Mainstreaming circular economy objectives in free trade agreements, in other bilateral, regional and multilateral processes and agreements, and in EU external policy funding instruments."

- European Commission Circular Economy Action Plan 2020 -

Changes in global resource flows, with impacts on sustainable development

In general, a shift to circular systems in the EU, as per the implementation of the CEAP, results in changes to primary and secondary resource flows, including the demand for and trade in these resources. Further down the line, these changes can translate into opportunities or obstacles for sustainable development in countries predominantly exporting to the EU, who are often undergoing their own shift to circularity, albeit at varied speeds.

The most visible trend in resource flows caused by the first EU circular economy action plan³ (2015 – 2020) was the export of recyclable waste streams outside the EU, with documented negative environmental and social impacts on third countries such as China and India. The increase in waste imports left several developing countries to deal with large amounts of waste – low-quality plastic waste, in particular – while lacking the proper infrastructure for processing and recycling. This finally caused many importer countries to close their ports for plastic waste shipments⁴. Under the new CEAP, the EU has taken an opposite approach and will focus on preventing waste creation in the first place and taking charge of reverse value chains – which still may be international in nature, but no longer entail shipping out low-quality material streams without follow-up.

As regards possible – and hopefully more positive – future trends, the update of EU product policy under the CEAP will aim to prolong the life of products and introduce requirements for recycled content in products, this way contributing to the decrease in resource use in general and an increase in the demand for secondary raw materials in

³ EC. (n.d.). <u>First circular economy action plan</u>.

⁴ Kettunen, M., Gionfra, S. and Monteville, M. (2019) <u>EU circular economy and trade: Improving policy coherence for sustainable development</u>, IEEP Brussels / London.

particular. The reduction of the demand for (primary) resources could reduce the pressure on the environment in trade partner countries with positive implications on environmental sustainability⁵.

With the right enabling conditions, changes to resource use and flows can provide new, more sustainable opportunities for economic diversification, value creation and skills development – both in the EU and also globally.

Developing countries in particular could be in a strong position to take advantage of these new economic opportunities, with their large informal sectors already practising circular activities⁶. Developing countries have the opportunity to leapfrog developed countries in digital and materials innovation, to embed sustainable production and consumption at the heart of their future economies. However, these global benefits do not happen without dedicated efforts, with trade and trade policy being a key element in guiding developments (e.g., investment) towards the right direction. The EU recognises this, with dedicated mentioning of creating global partnerships as part of the CEAP, with Africa as one of the key focal areas.

Changes in resource and product standards, with the EU setting the bar higher

Fostering circular economy in the EU and at the global level requires attention to detail in resource and product definitions and standards. The global movement of resources and products along a global value chain implies that they are subject to definitions, regulations and standards that differ across geographic areas, such as the EU and its trade partner countries. Such often substantial differences represent an obstacle for trade in recyclable and secondary raw material, currently significantly hindering efficient material circularity and functioning as an undeliberate, non-tariff barrier to trade. Furthermore, specific standard linked to circular economy, such as those for repairability, recycling and re-use, yet remain to be developed.

The implementation of the EU CEAP foresees a significant improvement of the sustainability standards of products put on the EU market and, as such, it presents an opportunity to standardise – and improve – environmental requirements through trade, both within the EU and globally. There is a strong emphasis on eco-design, as 80% of a products environmental impact is determined already at the design phase⁷. Improving and harmonising definitions, standards and criteria for recyclable waste and secondary

⁵ At the moment, the trends in trade of primary versus secondary resources indicate that the latter is not projected to surpass the former any day soon (<u>OECD – Global Material Resources Outlook to 2060</u>, 2019). This means that policy measures and incentives are needed to also reduce total consumption.

⁶ Chatham House (2019).

⁷ EC. (2018). EU Science Hub – Sustainable Product Policy.

raw materials within the EU can lead to encouraging the uptake of such standards at a global scale through trade, with an access to the EU market as a concrete reward for doing so.

By 2030 only safe, circular and sustainable products will be allowed onto the European market. For this to be possible, the EU needs to work with trading partners and together become the standard-setter for circular production and consumption across global value chains.

To be the most effective, such a harmonisation of definitions and standards requires dialogue and cooperation between the EU and its trade partner countries, including dedicated support to the partner countries for matching the future EU requirements for circularity. This is, in particular, the case with EU's developing country partners, many of whose economies depend heavily on the access of their raw materials and products to the EU market. With more advanced partners, cooperation on standards can help widen the remit of their use, with significant impact on their uptake by third countries as well. The business community in the EU and its trade partner countries is also an important stakeholder group, as they will be applying these new standards in practice.

Global circular economy trade and the COVID-19 aftermath

The EU CEAP was published, on schedule and according to the EU Green Deal plan, just before the COVID-19 pandemic. In the recovery aftermath, every sign still points to the direction of the EU keeping its course. Commitments to both the Green Deal and the CEAP have been continuously reconfirmed by the EU Commission and the revised multiannual financial framework (MFF) and the recovery package announced by the European Commission in 2020 included clear commitments to proceeding on the transition to circular economy, calling for "a massive renovation wave of our buildings and infrastructure and a more circular economy, bringing local jobs ...". The recovery plan also reconfirms EU's general commitment in leading international efforts towards sustainability and, from now onwards, global recovery.

However, the COVID-19 pandemic caused a major impact on world's supply chains and related trade patterns. Global trade in goods recovered quickly, demonstrating strong growth in the third and fourth quarter of 2020. However, global trade in services remains below pre-pandemic levels with only mediocre levels of predicted growth for 2021, largely driven by the demand for tourism and travel services⁸.

As a result of the disruptions in the supply chains and the generic economic downfall, global trade slowed down, with countries most dependent on exporting their natural resources experienced the greatest economic consequences⁹. There have also been voices promoting re-localisation of production closer to home, with the shortening of supply chains and increase in self-sufficiency.

As for the standards for traded resources and products themselves, concerns remain over a widening retreat from environmental regulations in key trading nations, with some countries feared to roll back environmental regulations deeming them as a costly hindrance rather than a competitive advantage to revive businesses. As for trade in services, restrictions in the movement of people continue to hamper different service-related trade.

Entering the pandemic aftermath, there is a clear need for common interests that keep global trade partners together, rather than drive them apart. Circular economy has played such a role in the past and, according to the ongoing developments from both

⁸ <u>UNCTAD – Impact of the COVID-19 pandemic on trade and development</u> (31 March 2021)

⁹ WTO – World trade primed for strong but uneven recovery after COVID-19 pandemic shock (31 March 2021)

the bilateral and multilateral (i.e. WTO) trade discussions¹⁰, circular economy continues to be of key interest to countries globally.

Consequently, low-carbon circular economy could – and arguably should – play an important role in the post-pandemic recovery, including building key global supply chains back up in a more sustainable manner.

How the pandemic impacted global trade

In April 2020, immediately after the COVID-19 pandemic was declared, the World Trade Organisation (WTO) forecast two scenarios – an optimistic and a pessimistic scenario – for the fall in global merchandise trade, which respectively predicted global trade would fall by 13% to 32%¹¹ in 2020 compared to 2019. A revised assessment in October 2020 forecasts a 9.2% decline¹² in global merchandise trade for the year 2020.

The most recent assessment¹³ predicts that the fall in global trade due to the COVID-19 pandemic could be less drastic than initially thought. However, the WTO cautions that the projections are still uncertain, especially considering the reality of subsequent waves of COVID-19 infections hitting economies.

Reflecting the uncertainty, the WTO cautioned in August 2020 that any predictions of a V-shaped recovery (i.e. a sharp rise back to a previous peak after a sharp decline) appeared to be overly optimistic, and that an L-shaped recovery seemed more plausible¹⁴ (i.e. a slower rate of recovery after a sharp decline). This prediction is further cemented by the WTO's most recent figures suggesting that trade in goods had rebounded but not yet fully recovered¹⁵. The WTO also forecasts that global trade is expected to increase by 7.2% in 2021 – which is significantly less than what was previously estimated, i.e. 21.3% increase of global trade in 2021 – indicating that the most likely recovery scenario will be L-shaped.

Goods: Taking a closer look at the immediate sector impacts of COVID-19 from April to June 2020, the WTO finds that in April 2020, automotive products (-70%), travel goods & handbags (-51%), footwear (-42%) and clothing (-42%) were among the hardest hit sectors, with all these sectors yet to fully recover in June. Contrary to the above, telecom equipment (e.g., smart phones home computers and desktops), which initially

¹⁰ e.g., WTO's <u>Trade and Environmental Sustainability Structured Discussions</u> (TESSD) brings together 53 WTO members to advance work on trade and environmental sustainability.

¹¹ WTO – Trade set to plunge as COVID-19 pandemic upends global economy (8 April 2020)

¹² WTO – Trade shows signs of rebound from COVID-19, recovery still uncertain (6 October 2020)

¹³ Ibid.

¹⁴ WTO – Goods barometer confirms steep drop in trade but hints at nascent recovery (19 August 2020)

¹⁵ WTO – Services trade recovery not yet in sight (26 January 2021)

saw a decline in April-May, saw 2% growth in June compared to last year. Similarly, computers performed better in April (+4%) and June (+5%) 2020 than in 2019 as consumers and business upgrade their systems to facilitate working from home.

Services: Regarding the immediate impact of the COVID-19 pandemic on the service sector, global trade in services dropped by 7% in Q1 of 2020, 28% in Q2, 24% in Q3 and 19% in Q4 of 2020 compared to the same periods in 2019¹⁶. UNCTAD's Global Trade update report indicates that the recovery of trade in services still lags substantially behind the recovery of trade in goods. The report forecasts that services trade will grow from Q1 2021 but only begin to reach to pre-pandemic levels by Q3 2021¹⁷, with lags in vaccine production and distribution being the most likely cause of delayed recovery¹⁸.

The UNCTAD statistics reveal in Q2 of 2020, at the height of the pandemic, the travel sector was hit hardest with a fall of 82% compared to 2019. The second largest impact fell on the transport sector which saw a decline of 29% compared to 2019. Good-related services such as manufacturing, maintenance and repair services fell by 22% compared to last year and other services fell by 7% compared to 2019. The service sector plays a key role in the development of a circular economy as a main channel to remove information barriers and encourage the uptake of circularity-enhancing practices 20.

Foreign Direct Investment (FDI): Global foreign direct investment (FDI) flows dropped by 49%²¹ during the first two quarters of 2020 according to the UNCTAD Investment Trends Monitor report. The impact, although severe everywhere, varies by region, i.e. developed countries saw FDI decline by 75% compared to 2019, while FDI to developing economies fell by 16%. Flows to Africa and Latin America decreased more than FDI to Asia, mainly due to resilient investment in China. The UNCTAD World Investment Report projects FDI to decrease further by 5% to 10%²² in 2021 and recover by 2022.

Sections below provide an overview of the trends in trade data across the EU CEAP sectors following and during the COVID-19 pandemic. The graphs have been developed based on the monthly trade data from the UN Comtrade Database capturing a

¹⁶ UNCTAD STAT – Trade and growth by main service-category, quarterly (2021)

¹⁷ UNCTAD – Global Trade Update (May 2021)

¹⁸ WTO – World trade primed for strong but uneven recovery after COVI-19 pandemic shock (31 March 2021)

¹⁹ Construction, insurance and pension services, financial services, telecommunications, computer and information services, other business services, personal, cultural and recreational services, government goods and services, ... from <u>UNCTAD – International trade in services 2020 quarter 1</u> (2020)

²⁰ UNCTAD – Circular Economy: the New Normal (2018)

²¹ <u>UNCTAD – Investment Trends Monitor</u> (October 2020)

²² UNCTAD – World Investment Report (2020)

general evolution of the trade flows in key circular economy relevant sectors from January 2019 to January 2021²³. While the Comtrade Database data not fully encompass the trade flows of key CEAP sectors, it allows for robust enough comparisons to be made. The trade partners selected in each graph traded the highest value or weight with the EU for each product category.

Packaging and plastics

Imports to the EU: Figure 1 presents the EU's imports of "Plastics and articles thereof" (HS category 39²⁴) in traded value (USD), including plastic packaging materials. China and USA are by far the EU's largest trading partners in this product category. Imports from China saw a steep decline in February 2020, most likely due to the strict Chinese lockdown followed by the European lockdowns in March 2020 and leading to a subsequent fall in demand for plastics. From April 2020 onwards China's exports of plastics to the EU have climbed to around pre-pandemic levels followed by a small decline during the summer. Plastic imports from the US have trended downwards throughout 2020 but appear to pick up as of October 2020. Plastic imports from other trading partners have seen less prominent declines in demand and appear to be relatively stable.

Exports from the EU: Figure 2 presents the EU's exports of plastic waste or "Waste, parings and scrap, of plastics" (HS category 3915) in traded value (USD). Prior to the pandemic in 2019, exports were already on the decline as Southeast Asian countries closed their ports to the EU's plastic waste. However, in the fourth quarter of 2020, EU exports of plastic waste saw a strong increase to Turkey, Malaysia and Indonesia, with the fluctuation in exports following the pandemic almost immediately reversed, followed by a very significant fall in waste exports in January 2021.

A reasonable explanation for the surge in plastic exports to the above countries is that as of January 2021, the EU has put in force new rules on the export of plastic waste, completely banning the export of hazardous hard to recycle plastic wate to non-OECD countries and applying stricter controls to the plastic waste being shipped to OECD countries²⁵. Thus, EU firms most likely ramped up their exports of waste ahead of the enforcement of these new rules, which implement the 14th COP of the Basel Convention, in fact going further by all banning the exports of plastic waste to non-OECD countries. The long-term impact of these stricter restrictions is yet to be seen in the trade data.

²³ Latest data available as of May 2021

²⁴ Harmonized System (HS) tariff nomenclature is an internationally standardised system of names and numbers to classify traded products

²⁵ European Commission – Plastic waste shipments: new EU rules on importing and exporting plastic waste (2020)

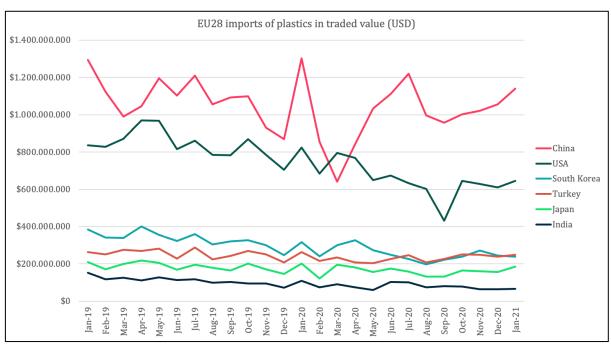


Figure 1, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

The data shows that since May 2019, India has held quite firm in rejecting EU plastic waste imports, as has Hong Kong since November 2019. The EU's exports of plastic waste in net weight (kg) reveals the same destinations, Turkey, Malaysia, Hong Kong, Indonesia, India, meaning there is little divergence in the value-weight ratio of plastic waste exports to these countries.

In light of the pandemic, the demand for personal protection equipment (PPE) spiked, in particular disposable surgical face masks and gloves, both made primarily of plastics. In this context, the PPE market is expected to grow by 7.8% from 2020 well into 2025²⁶ which will undoubtably have an impact on the amount of plastic waste produced. For example, the most recognisable blue disposable face masks are made of several layers of polypropylene (PP) microfibers²⁷. The OECD estimates that the global recycling rates for PP are near zero percent, compared to at least 10% for polyethylene terephthalate (PET) and high-density polyethylene (HDPE)²⁸. A recent paper extrapolates the increase in demand for PPE worldwide to reach 129 billion face masks and 65 billion gloves per month. Moreover, the demand for other single-use plastics such as take-out containers and plastic bags for groceries has increased for hygiene and health reasons, as consumption patterns adapt to the pandemic²⁹.

²⁶ Personal Protective Equipment Market – Growth, Trends, and Forecasts (2020-2025) (2020)

²⁷ Czigány, T. & Ronkay, F. – The coronavirus and plastics (2020)

²⁸ OECD – Improving Plastics Management: Trends, policy responses, and the role of international co-operation and trade (2018)

²⁹ Prata, J., Silva, A., Walker, T., Duarte, A. & Rocha-Santos, T. – COVID-19 pandemic repercussions on the use and management of plastics (2020)

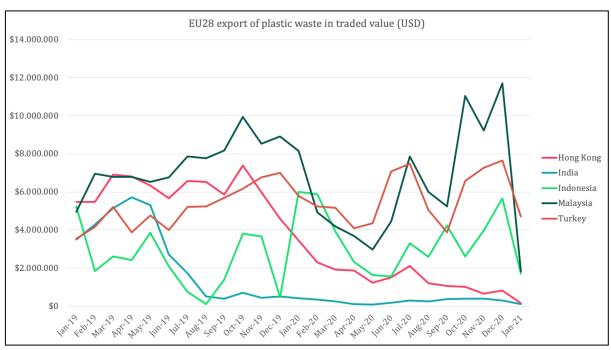


Figure 2, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

Electronics, ICT & batteries

Imports to the EU: Figure 3, data retrieved from UN Comtrade Database, graph by the authors. presents the EU's import of electronics (HS category 85³⁰) and batteries in traded value (USD). China is by far the EU's largest trading partner in this category. While imports from China declined from November 2019 to February 2020, most likely attributed to China's pandemic response and lockdown, Chinese imports have climbed to pre-pandemic levels from October onwards. This import data along with the WTO's trade forecasts demonstrate that the electronics sector has remained quite resilient throughout the pandemic and even show a V-shaped recovery in the case of Chinese import demand.

Exports from the EU: Figure 4 presents the EU's export of electronics (HS category 85) in traded value (USD). Similar to the trends reported in the WTO report, these exports have been rather stable, except for exports to China and the USA. The export decline to China corresponds to the period in which China went into lockdown, while the decline in exports to the US corresponds with the regional lockdowns in the EU. From May 2020, exports begin to increase again, reaching pre-pandemic levels in most cases.

³⁰ HS category: "Electrical machinery and equipment and parts thereof; sound recorders and reproducers; television image and sound recorders and reproducers, parts and accessories of such articles"

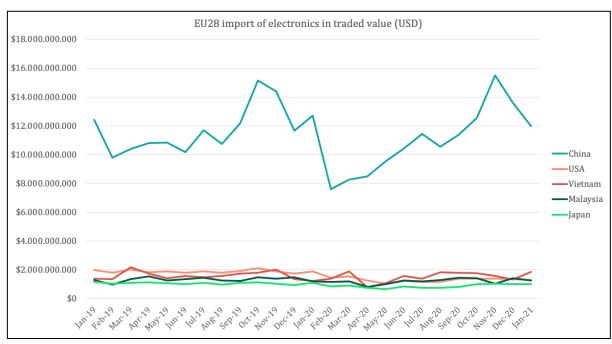


Figure 3, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

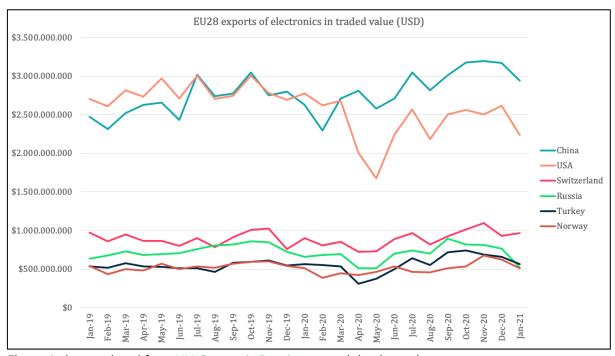


Figure 4, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

E-waste exports (value): Figure 5 presents the EU's export of electronic (HS category 8548³¹) in traded value (USD). These exports have not changed significantly due to the

³¹ HS category: "Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, not specified or included elsewhere"

<u>pandemic</u>. In the case of China, a significant export increase is visible in March 2019, which is likely to be explained by China's 2019 plans to reduce or ban the import of several waste categories, including e-waste³². Consequently, from November 2019 onwards, EU's export of e-waste to China decreases monthly until February 2020 where it remains stable, fluctuating around a traded value of \$2 million per month.

E-waste exports (weight): Figure 6 presents the EU's export of electronic waste (HS category 8548) in net weight (kg). The data reveals that the largest trading partners based on weight are different to the largest trading partners based on value. This points to the discrepancies in traded value of electronic waste. It indicates that high-value electronic waste is exported to higher-income countries with specialised capacity in place to recover value from "high-end" e-waste while low-value electronic waste is exported to lower- to middle-income countries. This general trend confirms that, with or without the pandemic, trade in e-waste as it stands does not deliver equal sustainability benefits or opportunities globally. Also, the unpredictable fluctuations in e-waste exports (in kg) pre- and post-pandemic make it so that there is no clear impact or trend in the evolution of this trade flow.

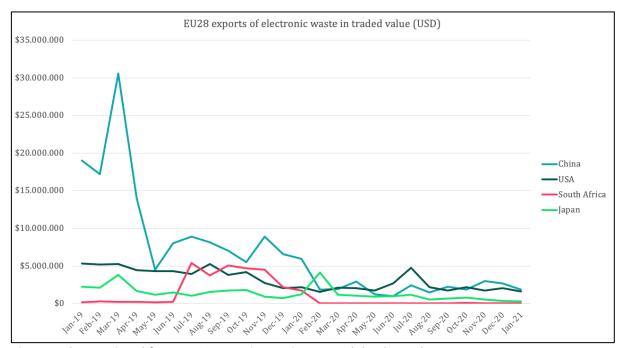


Figure 5, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

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³² DW – After China's import ban, where to with the world' waste? (April 2019)

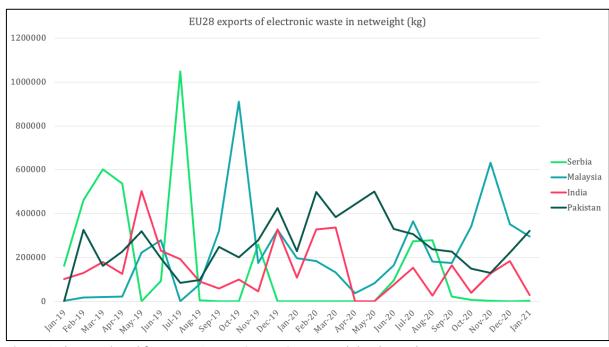


Figure 6, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

Extractive sectors underpinning e-trade: The main metals and raw materials used to produce electronics and batteries are copper, lithium, silver, gold, palladium, platinum, nickel and aluminium. In general, global mining production has also decreased amidst the COVID-19 pandemic, however less so than other industries. During the height of the pandemic, mining activities were stopped in South Africa, Peru and Argentina, while operations continued fully or partially in Australia, Brazil, Chile, Democratic Republic of the Congo, Russia, China, India, USA and Canada³³.

<u>Despite higher operating costs and stalled production, the industry has only been moderately affected by the pandemic</u>. For instance, the South African mining industry saw their profitability increase predominantly due to variable commodity prices³⁴. The economic uncertainty brought on by the pandemic lead investors back to an old-time favourite – gold – leading to its highest price increase yet, while other commodity prices such as for coal, copper, iron ore, nickel, platinum and silver reached new lows in March 2020³⁵. However, the prices of these commodities have since recovered, which has benefitted the mining industry.

The OECD's Global Material Resources Outlook projects that the growth rate of newly mined materials (1.5% growth from 2011) will be overtaken by the growth of recycled minerals by 2030, and that the growth rate of secondary minerals use is expected to exceed further to 2060, surpassing the growth of primary resource extraction by 2%.

³³ PwC – Mine 2020: resilient and resourceful (2020)

³⁴ PwC – SA Mine 2020: essential and resilient (2020)

³⁵ Trading Economics - Commodities prices (2020)

However, the usage of secondary non-ferrous materials is expected to remain lower than that of primary non-ferrous materials due to relatively higher labour intensity in the recycling process. The growth of primary and secondary use of steel and iron remain matched in the middle to long term³⁶. In light of the moderate impact of the pandemic on the mining industry, it is most likely these projections will not be affected much by the pandemic.

Textiles

Imports to the EU: Figure 7 presents the EU's imports of "Apparel and clothing accessories, knitted or crocheted" (HS category 61) in traded value (USD)³⁷. <u>All trading partners saw a decline in EU imports of textiles from January 2020, onwards</u>. The decline is more pronounced with the EU's largest trading partners in this category: China, Bangladesh and Turkey. Since summer 2020, imports from the EU's main trading partners in this textile category have mostly returned to pre-pandemic levels, with seasonal variability.

Exports from the EU: Figure 8 presents the EU's exports of apparel and clothing (HS category 61) in traded value (USD). As of March 2020, a decline in the EU's export of clothing is visible corresponding with the European lockdowns, halting production. From April 2020 onwards, exports in this sector increased until July when the sector fully recovers by reaching pre-pandemic traded values.

The global textiles market is expected to shrink by 2.8% in 2020 compared to the previous year, however, forecasts³⁸ and the monthly trade data indicate that the sector is expected to recover by 2021.

³⁶ OECD – Global Material Resources Outlook to 2060 (2019)

³⁷ The global standards system categorises textiles under Section XI which includes the product categories from 50 to 63. For simplicity, we have selected category 61 as it was one of the categories with the highest traded value. Category 61 thus provides a snapshot of the EU's imports of textiles.

³⁸ Textile Global Market Report 2020-30: COVID 19 Impact and Recovery (2020)

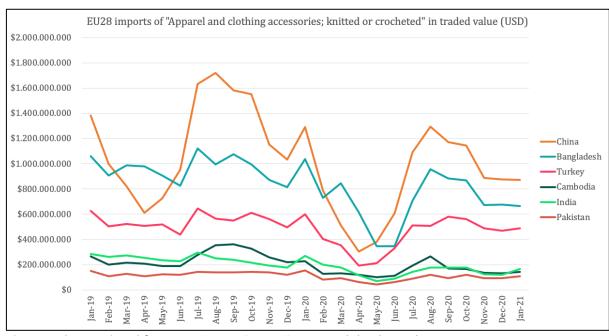


Figure 7, data retrieved from UN Comtrade Database, graph by the authors.

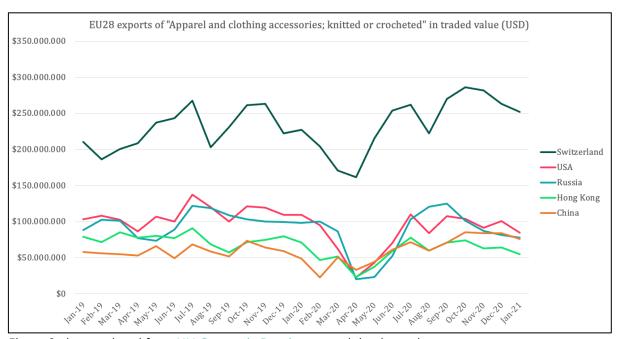


Figure 8, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

Exports from the EU of worn clothing: Figure 9 presents the EU's exports of "Textiles; worn clothing and other worn articles" (HS category 6309) in traded value (USD). This graph also shows the strong impact of the pandemic on traded goods. The strong rebound in exports from May 2020 onwards suggests that the sharp decline in the EU's export of worn clothing is largely due to the sudden halt in transport services for traded goods. However, from November 2020 onwards exports of worn clothing takes another fall. It is unclear, however, what the exact cause behind this trend is.



Figure 9, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

Construction and buildings

The Construction Products Association estimates the 2020 construction output to shrink by 14.5%, but that the sector will rebound quickly by next year, with a projected output growth of 13.5%³⁹. To gauge the evolution of the EU's demand for construction sector primary inputs, this analysis looked at the EU's monthly imports of cement and steel.

Imports to the EU: *Figure 10, data retrieved from UN Comtrade Database, graph by the authors.*

presents the EU's imports of cement (HS category 2523⁴⁰) in traded value (USD). The imported value of cement in general is rather low, which could be explained by the EU sourcing its cement needs from domestic production, rather than importing cement from distant countries, which would significantly increase transport costs. There is no clear, sustained impact of the pandemic on the import of cement.

Figure 11, data retrieved from UN Comtrade Database, graph by the authors. presents the EU's imports of steel and iron (HS category 72) in traded value (USD). There is a small decline in steel and iron imports starting in March 2020, due to the EU's regional lockdowns. Since the virus' arrival in Europe, the import of steel and iron appear to be on a gradual decline, with a small uptick of imports in October 2020. Possible explanations for this could be, that the EU is not in general very reliant on foreign steel as it is among the

³⁹ World Cement - CPA publishes Autumn Scenarios for construction output in 2020 (19 October 2020)

⁴⁰ HS category: "Portland cement, aluminous cement ("ciment fondu"), slag cement, supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers"

world's largest producers, and that EU steel producers have upped production to lessen dependence on foreign imports.

Due to China's large share in worldwide crude steel production, paired with their strict lockdown in January 2020, global production levels remain relatively stable throughout the rest of 2020 while other producing countries entered into lockdown in March 2020. Regional lockdowns caused global crude steel production to fall by 15% in April 2020 compared to the previous year, however data from January 2021 indicates that global production has recovered from the shock of the pandemic as steel global crude steel output decreased by only 0.9% in 2020 compared to the previous year⁴¹.

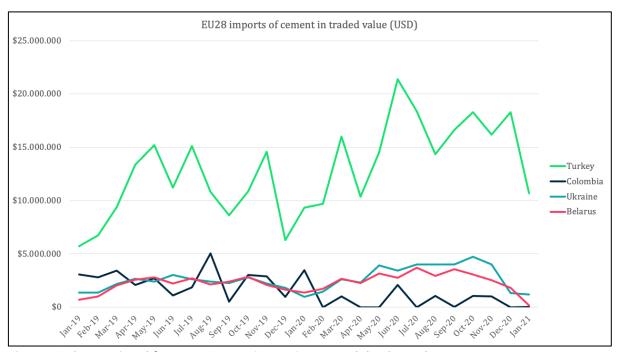


Figure 10, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

⁴¹ World Steel Association – Global crude steel output decreases by 0.9% in 2020 (26 January 2021)

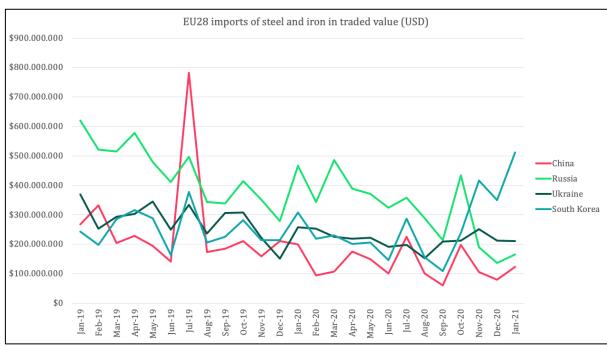


Figure 11, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

Vehicles

Imports to the EU: Figure 12, data retrieved from UN Comtrade Database, graph by the authors.

presents the EU's import of vehicles (HS category 87⁴²) in traded value (USD). <u>A clear, steep drop in the demand for foreign vehicles</u> is visible on the EU's side starting in March 2020, however the <u>imports seem to recover slightly from May 2020 onwards</u>. The month-to-month fluctuations in vehicle imports during the third quarter of 2020 does not significantly differ from pre-pandemic import fluctuations, suggesting the sector has somewhat stabilised.

Exports from the EU: Figure 13, data retrieved from UN Comtrade Database, graph by the authors.

presents the EU's exports of vehicles (HS category 87) in traded value (USD). In line with the WTO report, the EU vehicles export has significantly decreased since the pandemic. However, the data from May onwards indicate the sector has recovered. While a slight decline is visible in December 2020, a similar decline is observable in December the previous year, most likely due to a seasonal decline in demand.

⁴² HS category: "Vehicles; other than railway or tramway rolling stock, and parts and accessories thereof"

Linked to trade, global production of passenger vehicles is estimated to decline by at least 20% in 2020 due to the pandemic⁴³, making it one of the hardest hit sectors considered in the CEAP.

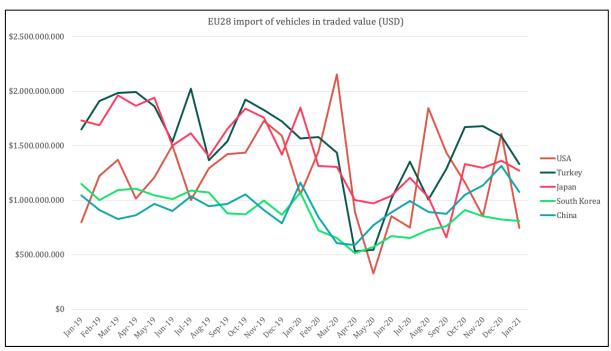


Figure 12, data retrieved from UN Comtrade Database, graph by the authors.

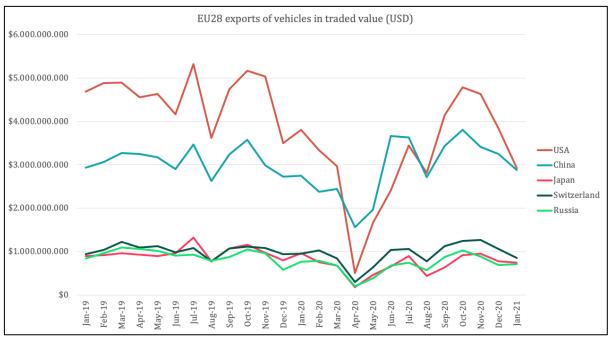


Figure 13, data retrieved from <u>UN Comtrade Database</u>, graph by the authors.

⁴³ Global pandemic impacts automobile industry figures in Q1 (2020)

Food and bioeconomy

Analysing commodity specific trade data is too complex of an approach to get a brief overview of the trends in food and bioeconomy sectors following the pandemic. However, a new FAO report⁴⁴ provides an analysis of the impacts of the pandemic on 2020 agricultural trade.

According to FAO analysis, the pandemic had a "twin" effect on agricultural trade by disrupting activities throughout the supply chain (e.g., diminished capacity of labour and production, travel restrictions, accessibility to agricultural inputs) and due to changes in demand (e.g., diminished disposable income, travel restrictions, closure of food establishments).

The report concludes that, despite the pandemic, global agricultural trade was rather resilient to the supply and demand shocks in 2020, also thanks to government policy responses to ensure trade continued as frictionless as possible. Certain products endured greater disruptions (beverages, fish, cotton, live plants and cut flowers) than basic foods such as cereals, oilseeds, fruits and vegetables during the first wave of the pandemic.

In May 2020 global food and agricultural imports fell by 10%, however the following month saw an increase of 5% compared to 2019. This evolution reflects that of the FAO Food Price Index, reaching its lowest point in recent years in May, and then rising continuously since June, achieving a 3-year high.

⁴⁴ FAO – Agricultural trade & policy responses during the first wave of the COVID-19 pandemic in 2020 (May 2021)

How can EU trade policy support circular economy – and recovery?

The EU currently has around 80 trade agreements (FTA) fully or partly in place, and around 40 pending or being negotiated. This makes it the world's most productive trade negotiating authority, which helps to secure that the EU has a significant influence over global trade, as its share in global manufacturing declines⁴⁵.

Sustainability is embedded in the EU FTAs with each FTA including a dedicated chapter on sustainable development, i.e. the Trade and Sustainable Development (TSD) Chapter. A cooperation framework is set up under the chapter with each partner, including to solicit input from policymakers, business and other stakeholders with a view to uphold the provisions set forward in the chapter.

However, the assessment of the EU FTAs and their supporting Sustainability Impact Assessments (SIA) shows that EU's trade policy still represents a largely underused potential for the EU to advance the circular economy agenda globally⁴⁶. To date circular economy is explicitly mentioned only in two EU FTAs, in both cases set out as pertaining to the environment only rather than being considered an underlying feature of the economy as whole.

Trade related cooperation on the circular economy will provide a concrete and powerful way forward for the implementation of EU FTA's sustainable development objectives. It can support both global circular economy and 'greening' of EU trade more broadly. This would both benefit the EU's own shift to circularity (e.g., ensure imports matching with EU standards) and also help to demonstrate EU leadership in promoting sustainable trade globally. Finally, using trade policy in a pro-active manner to boost circular economy in both the EU and its trade partner countries can support sustainable recovery from the pandemic.

For EU Member States, the FTA framework provides the blueprint for new businesses and business strategies. Businesses and jobs are important priorities in the aftermath of the COVID-19 crisis, and circular economy provides new and sustainable opportunities that can be enhanced through trade agreements.

⁴⁵ Marschinski, R. and Martinez Turegano, D., Reassessing the Decline of EU Manufacturing: A Global Value Chain Analysis, EUR 29999 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-11253-2, doi:10.2760/30611, JRC118905.

⁴⁶ Blot, E. & Kettunen, M. (2021) and Kettunen et al. (2020)

At the multilateral level (i.e. WTO), circular economy has gained strong traction as a key means to deliver sustainable development and the 2030 Sustainable Development Goals (SDGs) in a trade context. A number of EU's multilateral trade partners, including China⁴⁷, have expressed interest in cooperation on circular economy. For example, concrete cooperation measures under EU FTAs could pilot policy measures that could later be scaled up at the multilateral level, thus advancing the global circular economy transition also beyond specific bilateral agreements.

Taking a closer look at EU trade partners

The overview of sector trade data provides initial insights in possible future opportunities for boosting circular economy through trade between EU and some of its key trade partners.

China: China is the EU's biggest source of imports and its third-biggest export market, with a share of 22% of EU imports and 10.5% of EU export of goods in 2020, respectively⁴⁸. As Chapter 3 highlights, trade between the EU and China comprises of a range of circular economy sectors with imports from China to the EU including both primary resources, such as iron and steel, and value-added products such as electronics, machinery, vehicles and textiles. While EU exports of plastic (waste) to China have ceased, imports of plastic goods from China to the EU remain prominent part of the trade relationship. Furthermore, China remains a key export market for EU's high value e-waste, even if this trade has dropped significantly since 2019 (Figure 5).

The prominent role of China as a trade partner in general – and circular economy sector trade partner in particular – highlights the importance of trade related cooperation between the EU and China in the future, to ensure that imports to the Union match the future EU standards. Vice versa, it is also important for the EU to ensure that its exports "match" China's domestic interests and standard, including to avoid any future trends akin to the EU plastics waste exports. In general, China has a keen interest in circular economy, with a number of national instruments in place, including the Circular Economy Promotion Law (2008) and Circular Economy Development Strategy and the Near-Term Action Plan (2013). This, together with an existing Memorandum of Understanding on Circular Economy Cooperation between EU – China (2018)⁴⁹, can provide a fruitful basis for circular economy dialogue also in the trade context.

The US: Similar to China, the US is one the EU's most important trade partners, being the largest partner for EU exports of goods (18 %) and the second largest partner for

⁴⁷ <u>EU – China MoU on Circular Economy</u> (2018)

⁴⁸ Eurostat (2021)

⁴⁹ <u>EU – China MoU</u> (2018)

EU imports of goods (12 %) in 2020⁵⁰. According to Chapter 3, several of the US export sectors to the EU are important circular economy sectors including plastics and vehicles. In terms of EU exports, the US plays and important role in receiving EU electronics and high-value e-waste.

Circular economy – and environmental agenda in general – did not received attention in the US during the 2017 – 2021 administration. While addressing climate change and curbing down carbon emission is now back on the agenda it does not (yet) seem that in the US, unlike in the EU, a shift to circular economy would be perceived a key policy response to delivering low-carbon future. However, the renewed common interested in environmental sustainability could form an interesting starting point for a dialogue around sustainability standards, including those for low-carbon circular products traded between the two blocs.

Indonesia, India, Malaysia and Turkey: EU's circular economy related trade with Southeast Asia and also Turkey is strongly characterised by plastics and e-waste exports from the EU. In addition, both India and Turkey are key textile exporters to the EU. Building on these trade relationships it seems clear that the cooperation between the EU and these trade partners should include exploring under which conditions, if at all, trade linked to plastics and e-waste recycling can benefit a sustainable economic development and business opportunities in the waste receiving country. A more sector specific examination seems to be merited to determine where creating circular economy loops at a global level (e.g., rather than within the EU) can bring net positive outcomes to sustainability.

With the plastics exports being brought under a more stringent EU regulation from January 2021 onwards, there was a drastic drop in the exported volume of plastics (Figure 2). It is however too early to draw conclusion as to the longer-term trends in the EU plastics exports, given the data is only available until end pf January 2021. Cooperation around a range of different standards and definitions, such as standards for recyclable plastic waste for exports and standards for textiles into the EU, seem important to focus on in the future, including entering into the discussions as to the capacity and infrastructure needs in the partner countries to better benefit from their role as secondary raw material producer and/or match the EU standards for their imports.

African countries: In terms of absolute volumes, trade between the EU and Africa does not reach the same level of importance as trade with the previously mentioned partners. However, the EU forms an important export market for several African countries, building on the framework of different trade agreements currently in place (see below). For example, the EU is the biggest trading partner for West Africa with exports to the

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⁵⁰ Eurostat (2021)

EU consisting mainly of fuels and food products⁵¹. Food and other agricultural products (e.g., cut flowers) also form the main export items to the EU from East Africa⁵². South Africa is one of the key EU trading partners with exports to the EU consisting of fuels and mining products, machinery and transport equipment, and other semi-manufactured goods⁵³.

In terms of circular economy, Chapter 3 highlights that Africa – and western Africa in particular – plays an important role as export market for second-hand textiles from the EU, with Ghana, Cameroon and Nigeria among the top six countries for EU exports. This indicates that exploring how the upcoming EU strategy on textiles, with circular requirements, will impact these trade relationships will be of importance. As for other sectors, mining products underpinning e-production and e-trade form an important export market for South Africa, including exports to the EU. With a shift to using secondary raw materials as basis for production in the EU might mean changes to the trade relationship that is currently based on the flow of primary raw materials.

Canada: While Canada does not feature prominently in the sector trade flows outlined in Chapter 3, what makes Canada an important trade partner is its outspoken political interest in circular economy demonstrated, for example, by hosting the 2021 World Circular Economy Forum. Building on this interest, the existing EU – Canada trade agreement could provide a framework for pioneering cooperation around circular economy, in particular on harmonising product standards in the light of the EU CEAP.

EU is Canada's second largest trading partner after the US, accounting for 10% of Canadian trade with the world. In comparison, trade with Canada accounts for 2% of EU's external trade, making Canada the tenth largest partner for EU exports of goods (1.7%) and the 16th largest partner for EU imports of goods (1.2%) in 2020⁵⁴. Traded goods between the two blocs include several sectors covered by the CEAP such as machinery and vehicles, and raw materials (inc. iron and copper ore).

Mercosur countries: Mercosur countries, including Argentina, Brazil, Paraguay and Uruguay), are one of the EU trade negotiations currently taking place with high ongoing political and public scrutiny on the sustainability aspects of the agreement. The EU is Mercosur's second biggest trade in goods partner after China, accounting for 17% of the bloc's total trade in 2019, with agricultural products forming a big bulk of exports to the EU (e.g., soya, coffee, meats and other animal products)⁵⁵. In the context of cir-

⁵¹ EC (2021)

⁵² <u>EC</u> (2021)

⁵³ EC (2021)

⁵⁴ Eurostat (2021)

⁵⁵ EC (2021)

cular economy, prominent role of the agriculture sector can make the bloc – and pending trade agreements – and interesting 'test ground' for considering the role of trade measures in supporting a shift to circular economy in the context of food and bioeconomy sectors.

The trade partnerships examined above are conducted under different types of trade arrangements. For example, dedicated free trade agreement is in place between the EU and Canada (CETA) whereas trade between the EU and US takes place under the WTO framework, with the negotiations for a bilateral agreement (TTIP) ending without conclusion in 2016. The EU and China also have no bilateral trade agreement in place, with the negotiations for the EU – China investment agreement put on hold in May 2021. Several developing economy partners – such as India, Indonesia and Malaysia – benefit from a low tariff access for certain products to the EU market under the Generalised Scheme of Preferences (GSP) or under regional economic agreements such as the ones put in place for West and East Africa.

These different types of trade frameworks and agreements between the EU and its partners form the basis for possible increase in and future cooperation on circular economy related trade. Therefore, understanding and exploring the potential the existing and future agreements hold will be important for making trade a proactive tool for circular economy. These agreements will also hold the key for 'building back better' after the global pandemic, including using boost in circular economy as a means to do so.

Conclusions and policy recommendations

Conclusions: Trade trends and patterns in the pandemic aftermath

Based on the analysis of the EU trade trends and available global trade data between January 2019 and January 2021, a general drop in trade caused by the COVID-19 pandemic could be clearly observed. However, the drop was not as drastic across all sectors as anticipated and the recovery seems to have also started, albeit slowly, even against the backdrop of further waves and related lockdowns.

Trade in goods: Trends across EU CEAP relevant sectors vary and the effects of the pandemic over the course of the year are not always easy to identify apart from the immediate impacts of national lockdown periods. Sectors showing clearest negative impacts due to pandemic include the vehicles and textiles whereas seemingly "COVID-resilient" sectors include electronics and e-waste, and extractive industries underpinning e-trade. It is not immediately clear from the trade data what these trends mean for challenges and opportunities for circular economy. For example, how will the mixed impact of the pandemic on the mining industry play out and impact the future uptake of secondary materials and how does the increase in disposable products impact waste related export needs. It also seems that the current supply chains underpinning trade in electronics and e-waste (e.g., batteries) are surprisingly resilient to changes.

Trade in services: In contrast to trade in goods, trade in services has clearly suffered due to the pandemic. This is significant in the circular economy context as its business models depend on trade in both goods and services. Consequently, strategies to 'build back better' with circular economy in the pandemic aftermath need to take into consideration the vulnerability of the service sector to future disruptions, seeking to understand how different services related to – and required by – circular economy are affected by trade disruptions.

Foreign Direct Investment (FDI): Similar to the service sector, there seems to be a clear global negative impact on FDI due to the pandemic, especially FDI in developed countries with developing economies being slightly less affected by the decline. A shift to circular economy requires investment at global scale (e.g., in developed and developing countries as well as from developed to developing economies) and therefore such impacts can be significant for hindering progress on circular economy, however the existing data does not allow drawing any clear conclusions in this regard. One of the key areas of interest in the future will be the green recovery funding and how it will benefit investment in circular economy.

Policy recommendations: what can the EU trade policy do?

In the pandemic aftermath, nothing in the trade patterns seems to take away the validity of pre-pandemic recommendations on supporting circular economy related trade to increase circular business opportunities globally, including the EU playing a driving role. Therefore, the EU should continue removing trade barriers to circular goods and services, to support a global shift to circular economy as there is nothing to indicate that the pandemic would have drastically changed the need nor the opportunities for circular economy.

The above also means that circular economy business opportunities are viable option for green recovery. The only aspect possibly hindering this is the pandemic related negative impacts on trade in services and how the slow recovery of the service sector will impact circular opportunities. Services play a crucial role in the development and maintenance of circular business models. Therefore, with or without the pandemic the EU trade policy framework needs to pay equal attention to facilitating trade in both circular goods and services, as circular models require facilitating trade in both.

Policy recommendations

- Use EU FTAs to remove barriers to advancing circular economy through trade, including both tariff and non-tariff barriers. In this context, consider focusing pioneering such approaches in the context of liked minded trade partners with existing FTAs, such as Canada. As for the developing economies, make tariff and non-tariff barrier considerations for circular economy as an explicit consideration in the context of the ongoing review of the EU Generalised Scheme of Preferences (GSP).
- Champion <u>circular economy related trade cooperation and diplomacy</u> both in the context of WTO and also as part of wider EU foreign and development cooperation policy linked to trade. At WTO, use the new <u>Structured Discussions on Environmental Sustainability</u> as a forum for promoting circular economy in the trade context. Furthermore, actively support facilitation of sustainable trade in plastics at the WTO, striving to use this as an entry point to wider cooperation around circular economy. In the context of EU policy, make facilitation of circular economy related opportunities as key element of EU external policy, including an explicit focus of EU's Aid for Trade on circularity-enhancing practices.

In both contexts above:

 Champion an agreement on <u>circular product and production standards and neces-</u> <u>sary definitions</u>, supported by the necessary trade-facilitation mechanisms (e.g., digital passports processes). These activities should be timed with the implementation of the EU Circular Economy Action Plan that drives the standard development in the EU context.

- Facilitating <u>trade in circular economy services</u>, hand in hand with products. With the
 emergence of new digitally-enabled and service-driven circular economy business
 models, trade in circular economy goods and services should be facilitated in parallel, as they are often interconnected. Facilitating and/or liberalising trade in services horizontally can also be used to support this.
- Encourage <u>foreign direct investment (FDI) in circular economy</u> as part of existing and new trade agreements, to boost FDI from severe drop due the COVID-pandemic while supporting green recovery.