



**World Customs
Organization**

Preliminary findings on the implications to Customs administrations of a transition to a circular economy

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Study background of Circular Economy

- ▶ Increasing societal support for environmental and social concerns; in addition to demands from a broad range of organisations and countries.
- ▶ The transition to a circular economy in support of the achievement of the SDGs.
- ▶ Taking into account the importance that the Circular Economy (CE) has assumed at the policy level, the Research and Policy Unit is conducting a study on the CE and its implications for Customs administrations to be published in the first half of 2023.
- ▶ **Green Customs** is one of the focus area in the WCO's Strategic plan 2022-2025.

“The WCO should prepare itself to deliver a strong message and concrete activities on behalf of the Customs community. Knowledge of how Customs could contribute specifically to global efforts is still quite limited, and needs to be reinforced through appropriate research and reflection.”

A conceptual glossary for Customs

“Green Customs” are on the frontline of facilitating and monitoring the greening of international trade. The scope can cover a wide range of activities, including, but not limited to, activities in association with the Green Customs Initiative Partners and with the MEA bodies, spanning compliance, facilitation, trade and capacity building work.

“Circular economy” is “a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles, driven by design: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature.” (Ellen MacArthur Foundation, 2016).

“Circular trade” can be seen as the exact opposite of “linear” trade, which involves the circulation of goods that are long-lasting, designed to be replaceable and easier recyclable. ■

“Circular-based goods” can fall into four main categories:

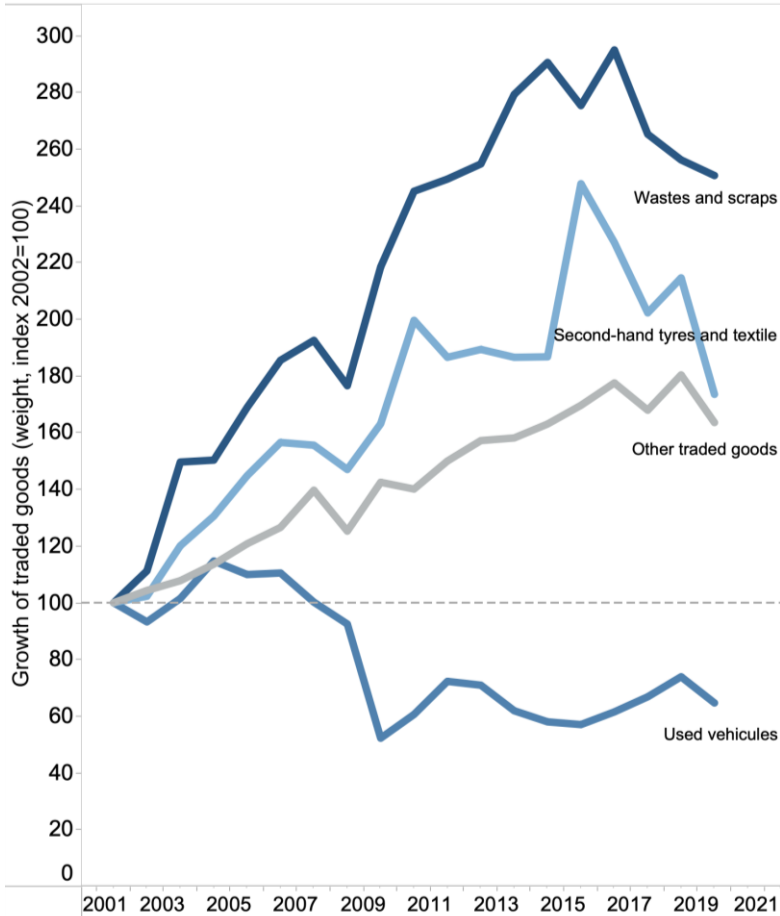
- CE-manufacturing based goods
- used goods
- end-of-life products
- recycled goods.

What could be the effects of CE policies on Customs organization, procedures and trade policies?

- ▶ CE policies are implemented at the local level, at the country level, and even at the regional level.
 - ▶ New domain for Customs;
 - ▶ National, regional and global contexts are more and more politically driven by environment concerns.
- ▶ CE policies can enhance environmental regulatory compliance and that will help green the supply chain.
 - ▶ What traded goods can and should be circulated to support the transition to a CE?
 - ▶ Does the existing HS classification help monitor the flows of CE-related goods?

Circular economy, trade and taxation

Circular trade is growing force.



Source: BACI database (CEPII); Eurostat;

Based on HS-6 digits codes,

- 2 items for used tyres;
- 3 items for used textile;
- 61 items for wastes and scraps

Based on regional/national HS codes,

- used vehicles

Flow estimates:

- 152 billion of US\$ in 2019
- less than 1% of the global value flows
- 240 thousands of ton metrics
- 1.5% of the world volume

Is circular trade an
opportunity for
greening trade?

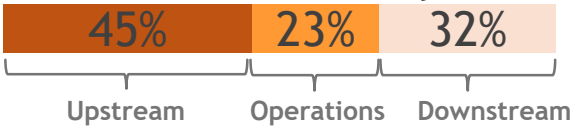


Trade itself has strong negative impacts on the environment that need to be managed.

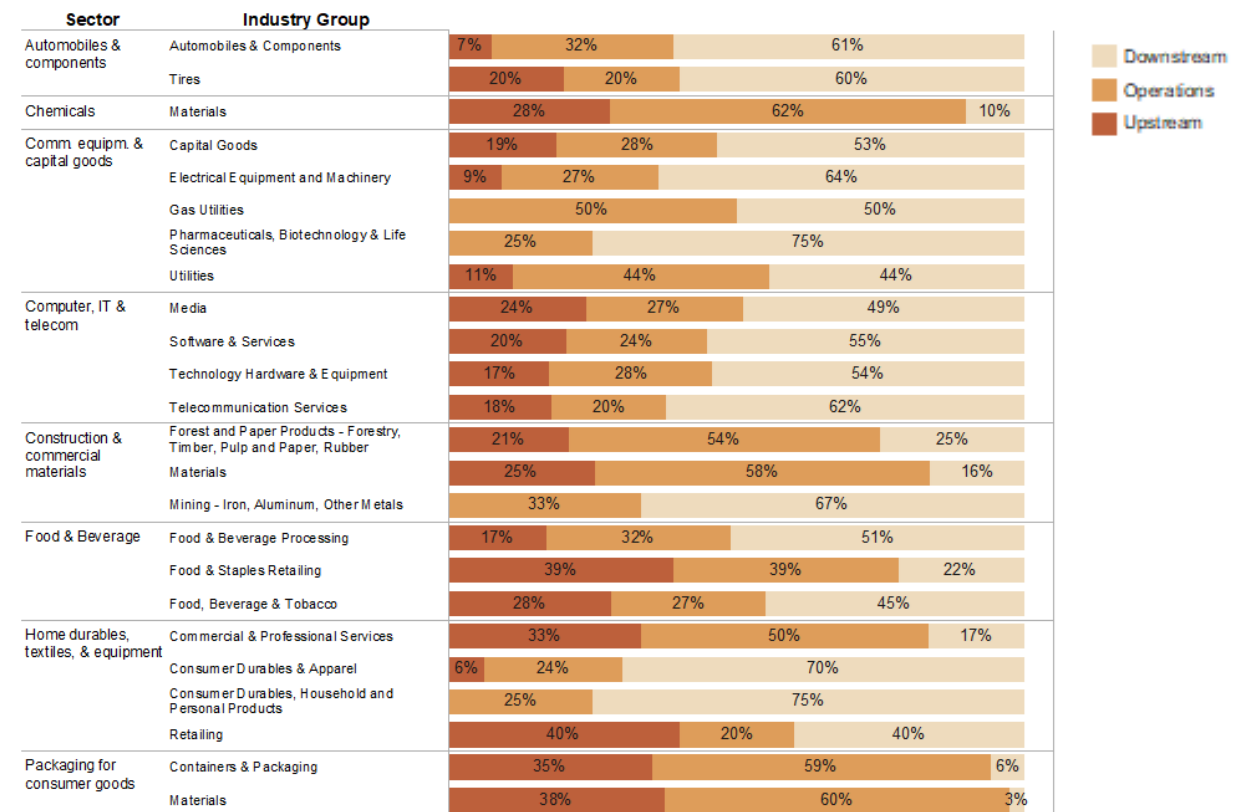
Carbon leakage (due to trading) is estimated about **25%**.

Products can cause average carbon emissions **six times their weight** through their life cycle.

Total value chain emissions vary with:

- Stages: 
 - Upstream
 - Operations
 - Downstream
- ... and across
 - Sectors
 - Industries

Value chain emissions (in %), breakdown by sector and industry group

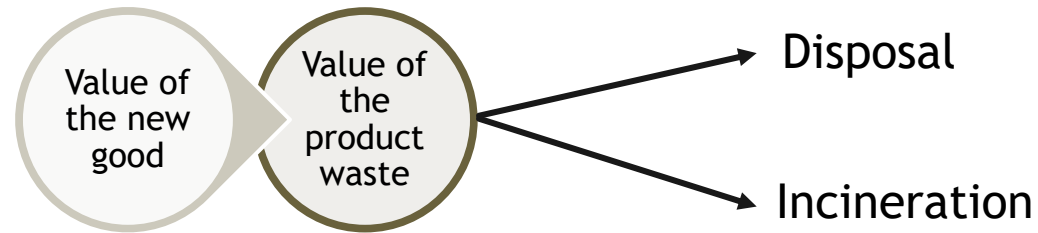


Source: Meinrenken et al. (2022) database

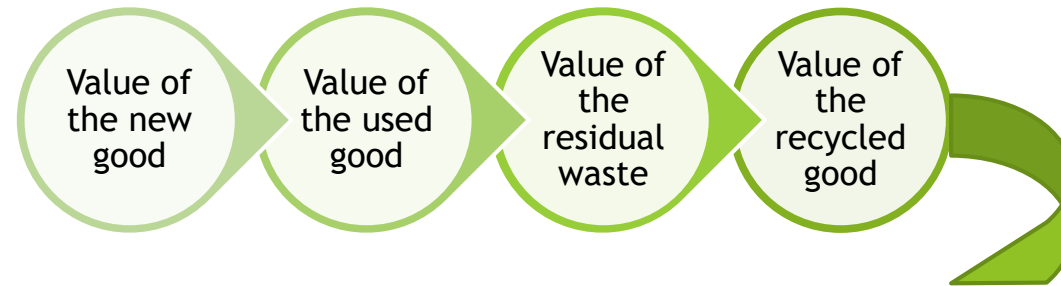
What does it mean a “circular value” chain?

A **circular value chain** can be defined as trade of goods flowing at least two or more borders and at different points of their life cycle.

“Linear” trade scenario



“Circular” trade scenario





Why data are key for monitoring the global transition to a circular economy?

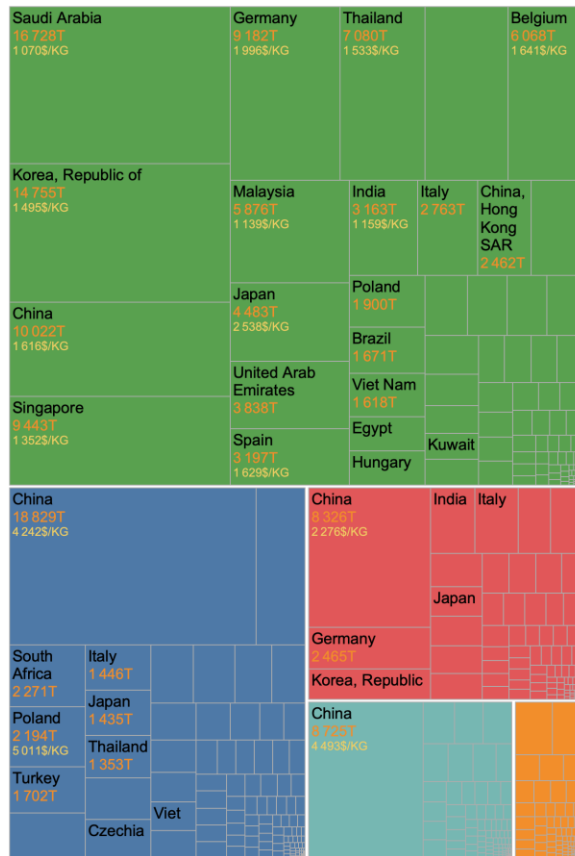
- ▶ **Many products with a high potential in circularity have still limited visibility under international trade statistics.**
 - ▶ Used tyres, used textile, and 64 wastes in HS 6-digit codes;
 - ▶ Others like used vehicles can be identified by tariff codes at the country/regional level (Japan, USA, EU).
- ▶ **Cooperation between Customs and private sector can be an important stake-away step.**
 - ▶ Aluminium sector at the global scale;
 - ▶ 38% of Customs administrations reported cooperation with the private sector and, 12% planned to do it in a near future (WCO Annual Survey, 2022).
- ▶ **A challenge for monitoring trade flows from other CE-related goods.**
 - ▶ HS commodity classification does not generally break-down goods in terms of new or used or by reference to whether they are recycled.



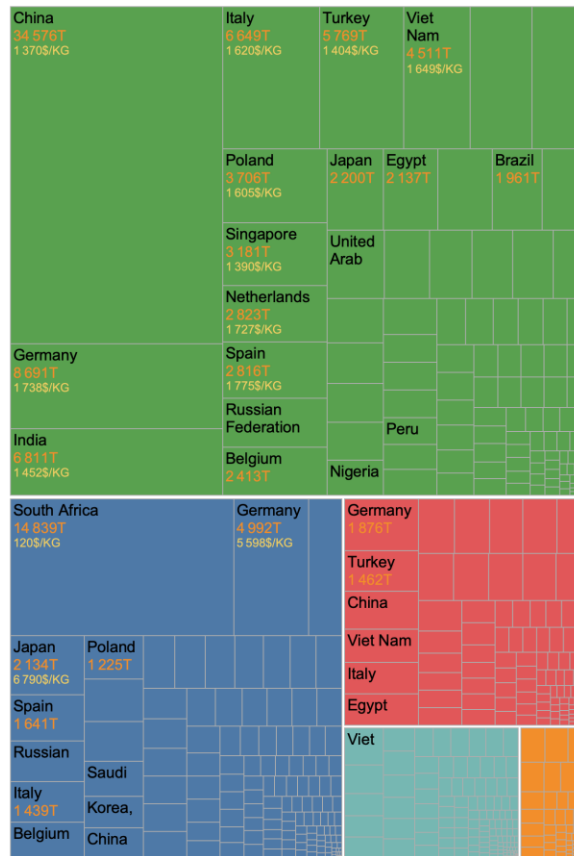
Case study on plastics life cycle

International trade statistics can be used as key to tracking flows across plastics life cycle.

A. Exports flows



B. Imports flows



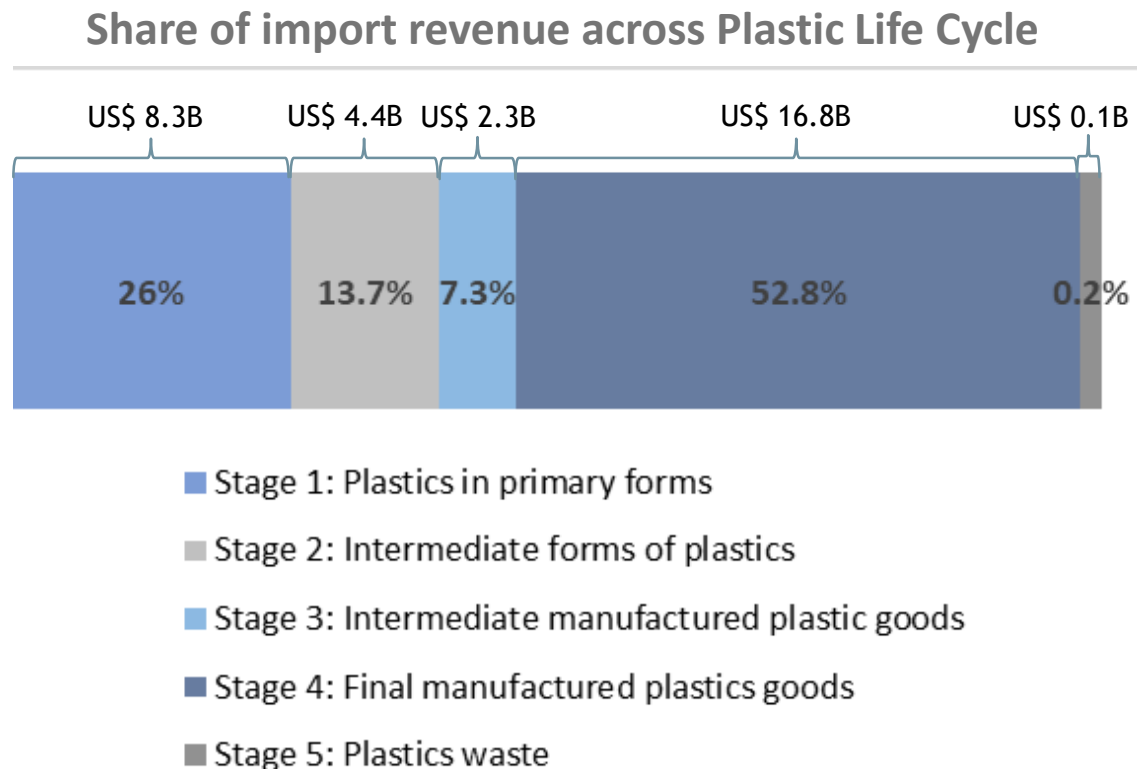
- ▶ US\$ 1 trillion of exports in 2019
- ▶ half of the volume in primary plastics

Plastic flows through the product life cycle

- Stage 1: Plastics in primary forms
- Stage 2: Intermediate forms of plastic
- Stage 3: Intermediate manufactured plastic goods
- Stage 4: Final manufactured plastics goods
- Stage 5: Plastic waste

Source: UNCTAD database; Barrowclough, Birkbeck and Christen (2020)

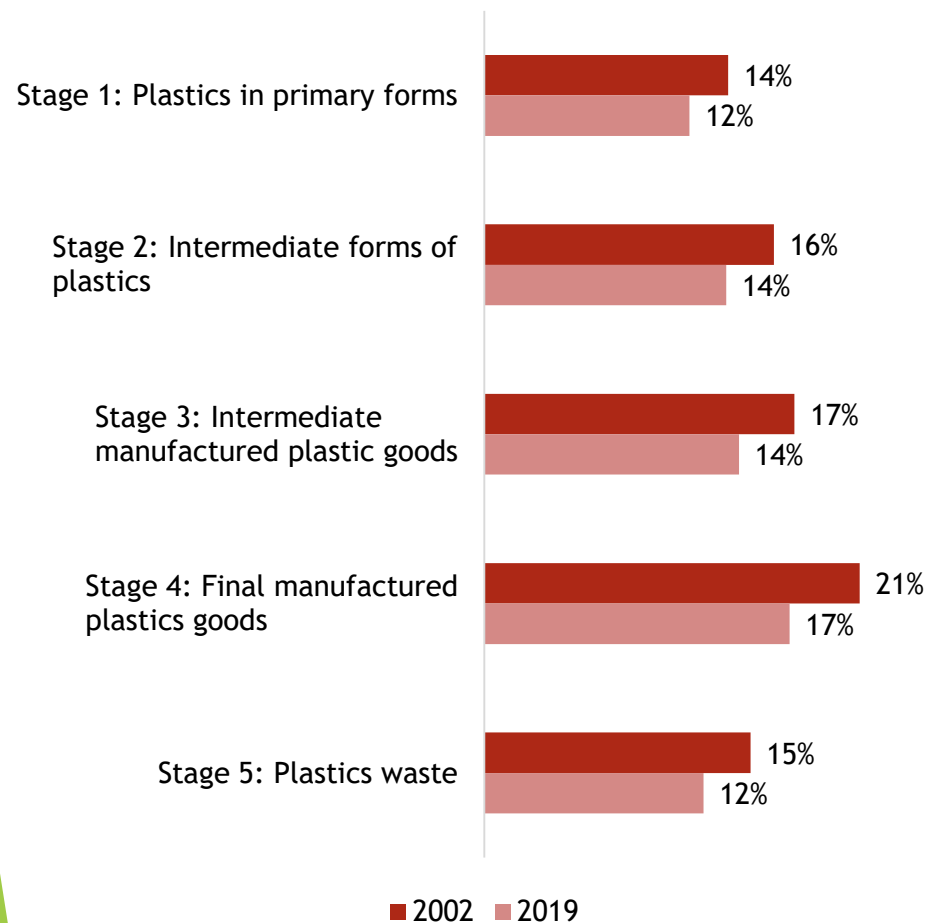
In 2019, Customs administrations collected **US\$ 31.9 billion** of import revenues at different points of the life cycle of plastics.



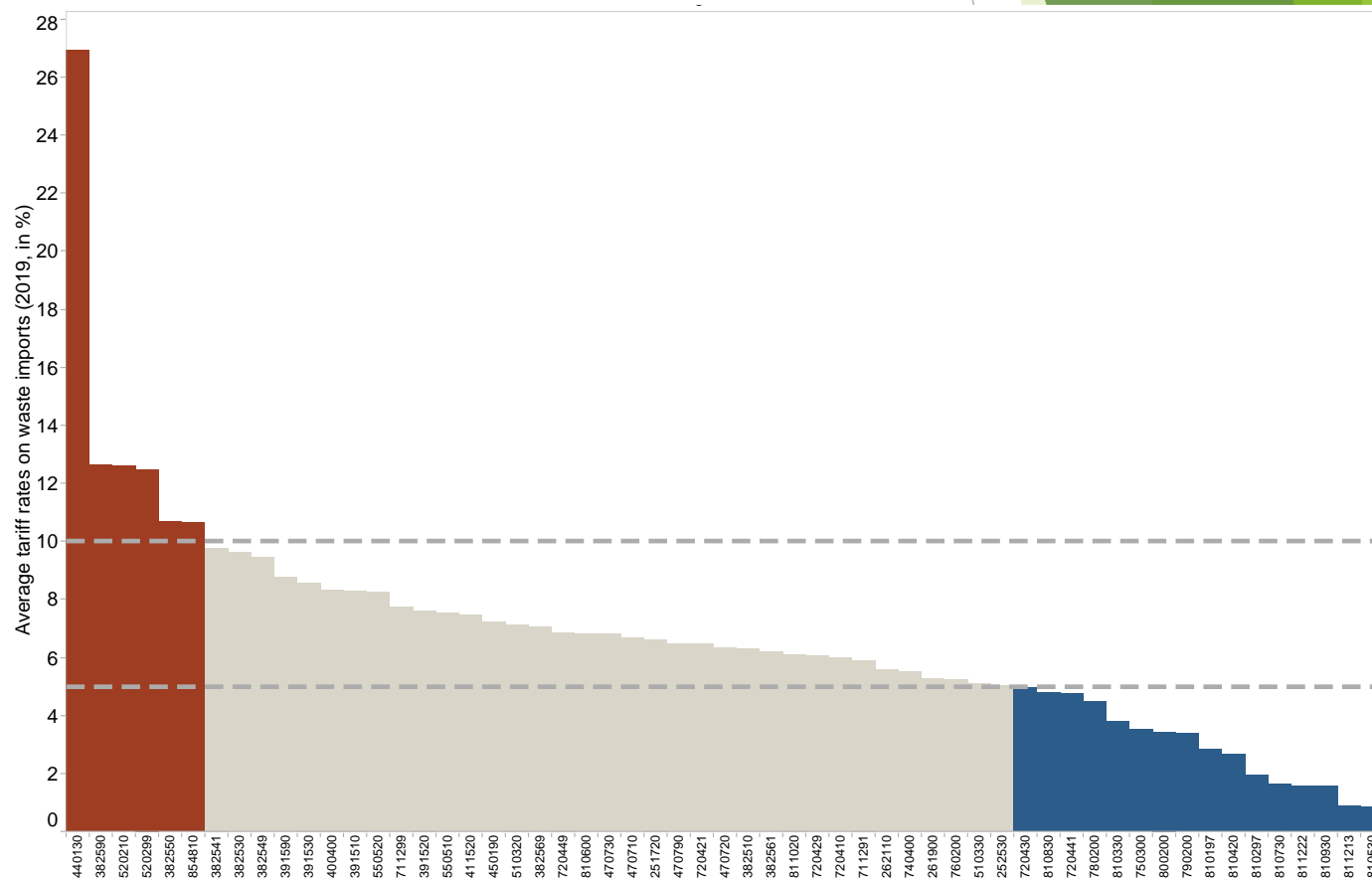
- ▶ 3 quarters of import revenues come from stages 1 and 4
- ▶ 3.1% of the total export value
- ▶ Import revenue doubled compared with 2002

Cross-border flows of CE goods are not equally affected by trade barriers.

Average tariff rate on plastics



Average tariff rate on wastes and scraps (2019)



Trade in end-of-life products can increase fraud risks and raise greater environmental and health concerns.

- ▶ Most fraud cases concerned metal wastes (13%), paper (7%), plastic (13%) and WEEE (14%).
- ▶ Trade in wastes are often highly contaminated, raising high risks to the environment, health, and security.
- ▶ Approximately 14% out of the total seizures involved transit countries.

Circular economy and Customs

- ▶ The impact on international trade by transition to CE is the subject of great debate.
- ▶ OECD (2018) predicts the possible changes in the level of international trade, as follows.
 - *lowering of the import demand of primary and secondary materials in a given jurisdiction;*
 - *Lowering of exports of materials and waste;*
 - *the emergence of new trading opportunities for services trade, such as waste management, recycling, refurbishment and remanufacturing, reuse, and repair, as well as new business models and product service systems;*
- ▶ Goods for recycling, refurbishment and remanufacturing, reuse, and repair can be classified as “harmful wastes” under Basel convention.
- ▶ These goods require more careful attention by Customs.

Definitions of “recycling”, “refurbishment”, “remanufacturing”, “repair”, “reuse”.

Recycling	<p>Refers to the relevant operations specified in Annex IV B to the Basel Convention.</p> <p>Recycling operations usually involves the reprocessing of waste into products, materials or substances, though not necessarily for the original purpose, and does not cover operations that recover energy from waste.</p>
Refurbishment	<p>Refers to the modification of an object that is a waste or a product that takes place within maintenance or intermediate maintenance operations to increase or restore performance and/ or functionality or to meet applicable technical standards or regulatory requirements, with the result of making a fully functional product to be used for a purpose that is at least the one that was originally intended. The restoration of functionality, but not value, enables a partial new service life for the product.</p>
Remanufacturing	<p>Refers to a standardized industrial process that takes place within industrial or factory settings, in which cores are restored to original as-new condition and performance, or better. The remanufacturing process is in line with specific technical specifications, including engineering, quality, and testing standards, and typically yields fully warranted products. Firms that provide remanufacturing services to restore used goods to original working condition are considered producers of remanufactured goods.</p>
Repair	<p>Refers to the fixing of a specified fault in an object that is a waste or a product and/or replacing defective components, in order to make the waste or product a fully functional product to be used for its originally intended purpose.</p>
Reuse	<p>Refers to the using again of a product, object or substance that is not waste, for the same purpose for which it was conceived, without the necessity of repair or refurbishment.</p>

Source: definitions from the UNEP report “Re-defining Value - The Manufacturing Revolution Remanufacturing, Refurbishment, Repair and Direct Reuse in the Circular Economy” 2018

Circular economy and the international regulatory environment

- ▶ The international regulatory environment is constantly changing.
- ▶ Reflecting the growing demands to protect environment from the society, there are many MEAs that were negotiated and ratified. The recent developments in major MEAs are as follows.
 - In December 2019, the ban amendment of Basel convention came into force. This amendment prohibits the transboundary movement of the harmful wastes and other waste from OECD countries to non-OECD countries.
 - In January 2021, the plastic waste amendment of the Basel convention came into force. Almost all types of plastic wastes came under the scope of the PIC (prior informed consent) procedure.
 - In January 2021, the Kigali amendment of Montreal protocol came into force, and hydrofluorocarbons (HFCs) came under control of international trade.
 - In March 2022, it is agreed at the 5th UNEA to launch a new negotiation for legally binding treaty to end plastic pollution, with an aim to complete by 2024.
 - At the WTO, in November 2020, the trade and environmental sustainability structured discussions (TESSD) was launched to envisage a global trading system that protects and preserves the environment. On the same month, the Informal dialogue on plastics pollution was launched among a group of members.
- ▶ In recent years, many countries has been negotiating the FTAs or regional agreements. The number of FTAs that include provisions of specific or substantive aspects related to environment is on the increase
- ▶ Customs should be aware of these developments and prepare for the entry into force.

Circular economy and compliance

- ▶ Maintaining the enforcement on environmental crimes
 - ▶ environmental crime is high on the agenda for the law-enforcement authorities.
 - ▶ “Recycling loophole” is one well-known type of such crimes. The waste is exported falsely claiming to be destined for recycle, but is not for recycling at all, and it will be illegally dumped or burned in an importing country.
 - ▶ The transition to a circular economy should not provide an additional opportunity for these crimes

<reference>

- The Probo Koala incident happened in October 2006. The chartered tanker Probo Koala carrying coker naphtha (heavy residual fuel oil) departure from Brownsville, dropped by a couple of ports, and finally berthed in Abidjan, Côte d'Ivoire and dumped wastes improperly. It caused 15 death, 69 hospitalization.
- WCO adopted “Recommendation of the Customs Co-Operation Council concerning Actions Against Cross-Border Environmental Offences (28 June 2008)”
- The Operation Demeter that tackles the illicit trafficking of waste, ozone depleting substances and HFCs started in 2009, and the most recent edition DEMETER VII conducted in October 2021.
- In 2012 the WCO established its Environment Programme with the purpose of assisting Members in combating environmental crime.
- Green Customs Initiative (GCI) among WCO, UNEP, BRS secretariat, CITES, UNDOC and others established in 2004.

Circular economy and HS codes

- ▶ Trade data for a circular economy and HS codes
 - ▶ In order to make better policies, collecting accurate data is absolutely essential.
 - ▶ In an area of a circular economy, data on trade in used goods is still missing, and there is a room for improvement.
 - ▶ There is a desire that this will be reflected in the next revision, HS 2027.

<reference>

- The Harmonized Commodity Description and Coding System or HS code is an international product nomenclature developed by the WCO.
- HS code is 6 digits codes, comprised of more than 5,300 codes, globally utilized for Customs declaration, and it also provides a basis for the statistics of international merchandise trade.
- The code came into force in 1988, and revised 1992, 1996, 2002, 2007, 2012, 2017 and 2022.

Customs challenges to be further explored

- ▶ monitor, assess and quantify the emerging trends of circular trade flows
- ▶ expand the role of Customs in enforcement, as Multilateral Environmental Agreements (MEAs) will increase in number and have already increased in scope
- ▶ enforce regulations against increasing environmental crimes and infringements related to circular economy goods

Conclusion

- ▶ New challenges for Customs administrations following the rise of a circular economy.
- ▶ CE policies and practices create an opportunity to circular trade, and then expand the role of Customs in the field of environment.
- ▶ Expected launch of the final report: first half of 2023.
- ▶ The Secretariat is open to suggestions, views and joint field research proposals from Members.



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