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Compensation for cargo claims in reverse supply chains

Julia Hörnig and Martijn Schippers

Abstract

The circular economy is essential to combat climate change. As part of the circular economy, supply chains are converted into closed-loop supply chains as this prevents non-recoverable waste and is thus more sustainable than traditional linear supply chains. The reverse supply chain is the part of the closed-loop supply chain that represents the phase whereby goods, at the end of their life span, are sent to a recycling or recovery facility. It is essential that goods in reverse supply chains reach their destination instead of being discarded along the way. In this article the authors presume that the current compensation systems in the international transport conventions discourage carriers or participants to close the material loop. The reason for this is that the compensation systems in international transport conventions are primarily based on the value of the transported goods. Because an inherent characteristic of goods in a reverse supply chain is that they have a negligible or low value, a financial incentive is lacking for the carrier to take care of the goods and make sure they reach their destination. The authors found several solutions to overcome these flaws. One is including a financial incentive in the transport conventions by making use of the principles for determining the customs value of imported goods. Taking a bottom-up or top-down approach are two other solutions explored in this article. In the case of the bottom-up approach, private parties include different contract models to facilitate the successful closed material loop, whereas the top-down approach introduces legal instruments to governments to intervene if the value for the compensation between the parties is too low.

Keywords: customs valuation, circular economy, shipment of waste, reverse supply chain

1. Introduction

Resource scarcity has aggravated the existing crisis in global trade after the COVID-19 pandemic and led to serious disruptions of supply chains. There is a strong need for raw materials such as lithium, and its absence has caused production downtimes.¹ Materials such as lithium can be obtained through mining; another option, however, is the disassembly of computers and electronic devices at the end of their lifespan. Thinking beyond the end of a linear supply chain and creating a material loop is one of the cornerstones of the circular economy. The European Union released the circular economy action plan in 2020 and emphasised the importance of this material loop (European Commission, 2020).

Achieving this goal requires closed-loop supply chains – a combination of forward and reverse supply chains (see Section 2). It also means that all incentives contradicting a successful closing of the loop need to be removed. One of the obstacles we detected is the lack of an incentive to ship less-value or

no-value goods to the designated recycling facility given the compensation system of the transport conventions, which is entirely based on value. Goods at the end of their lifespan have naturally less value than newly produced goods. Further, in contrast to the forward supply chain an underlying contract of sale for the goods shipped is not always in place, hence an indication for a market value based on the respective invoice is usually missing. Thus, why should a carrier care about the cargo or even deliver it to the facilities if unloading and carrying high-value cargo would be more lucrative?

Based on our presumption that the current compensation system discourages carriers or participants to close the material loop, we will propose regulatory and contractual adjustments partly based on concepts that exist in customs law.

To that end, we will explain the methodology used in this paper (Section 2), whereafter the compensation regimes of international transport and the results of these systems are discussed (Sections 3 and 4). In these sections we explain that the current compensation regimes are not adequate and suitable for a desired change of supply chains from linear to circular and do in fact encourage carriers or participants to care less about the products in their pre-recycling stage. The paper continues with a discussion on the methodology to determine the customs value of imported goods (Section 5) and considers whether this methodology can be used as a solution for the current flaws in the compensation regimes of international transport (Section 6).

2. Methodology

To analyse and answer the problem statement we used a doctrinal as well as a legal comparative method. The flaws in the compensation regimes of international transport are considered a global phenomenon. It is therefore key to address the relevant international transport conventions as a preliminary step to tackling the global issue. Despite being relatively comprehensive, the transport conventions do, however, not cover every single aspect in relation to a carriage contract.² These gaps are to be filled in by the contracting parties to the conventions. Besides the international transport conventions and legislation of the World Trade Organization (WTO), we therefore included the legislation of one of the contracting parties, the European Union (EU). That also allowed us to discuss relevant court decisions of the European Court of Justice (CJEU) and court proceedings in EU Member States in the discussion.

In this paper we analysed whether customs valuation methods can be used to appreciate goods for the purpose of transport-related compensation systems provided by the conventions. This is because the former takes a differentiated approach on cargo value depending on the age and the degree of utilisation, and even takes possibilities of future utilisation into account. As the customs valuation rules are laid down in regulations that directly apply in the EU Member States and the CJEU is competent for interpreting EU customs law, this perspective was taken for the purposes of our analysis.

3. Reverse supply chains

Trade and supply chains are traditionally focused on the purchase of single-use products that are not intended for reuse or recycling (Ellen MacArthur Foundation, 2013). The invention of plastic in that regard caused a significant side problem: it is non-recyclable waste, and exists in the form of packing units, or is a product itself (Mercelis, 2020). To facilitate the circular economy, products should not hinder recyclability or reuse. Additionally, traditional supply chains should be converted to also enhance reverse flows. In other words, there is a need to establish closed-loop supply chains. The following subsections introduce the basic concepts and legal implications of a reverse supply chain which forms, together with the forward flow, the closed-loop supply chain.

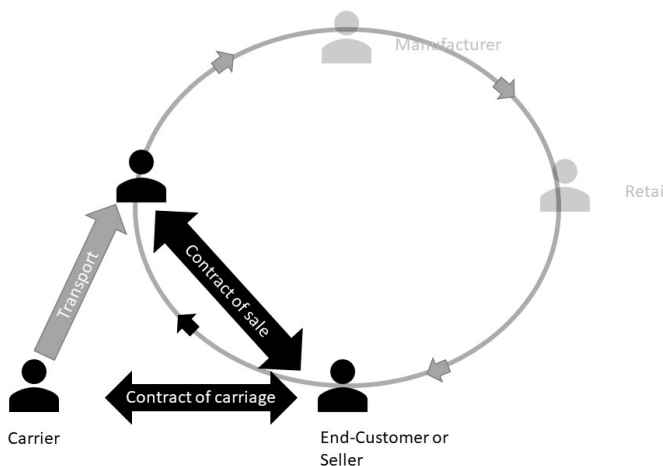
3.1 Operational concept

In contrast to the classic linear supply chain, circular economy-based supply chains are characterised by the fact that the focus is not on the beginning and end of the supply chain, but rather on the entire life cycle of a product, with the final intent being focused on reuse or recycling (Brears, 2018). In the event of a closed-loop supply chain, the conventional linear, forward supply chain is joined by a reverse supply chain (Govindan et al., 2015). While forward supply chains focus on the distribution of products to the customer, reverse supply chains encompass the collection and the inspection, as well as the disassembly and recovery of products for reuse (Kaoud et al., 2020). Reverse supply chains can be broadly divided into three categories: manufacturing, distribution and commercial returns (de Brito & Dekker, 2004). The first refers to the return of raw material and by-products, whereas distribution returns entail product recalls as well as, *inter alia*, stock adjustments. Commercial returns encompass warranty or guarantee-related returns, as well as end-of-life returns (de Brito & Dekker, 2004). An essential component of these reverse supply chains is reverse logistics, that is, a return-transportation of the product to the origin of its creation, usually to the manufacturer (Rogers & Tibben-Lembke, 2001). Thereby the value chain will operationally be closed, and waste can be avoided. This increases the effectiveness of resource use. However, one essential, necessary element of this chain is that the resources or products aimed for recovery procedure reach the recovery facilities. Given the fact that the percentage of import and export of plastic raw material is less than one per cent,³ it is important to ensure that the path from the location of the original end-buyer of the forward supply chain to the recycling facilities remains possible. Economic incentives which may put the success or lawful execution of transport of discarded goods⁴ at risk must be avoided to close the loop successfully.

3.2 Relevant contracts and the role of value

The previous section shows that in addition to the manufacturer, retailer and end customer there is a recycler involved. The supply chain is not linear but circular. The circulation of resources and material is usually covered by transport contracts, which can either be a contract of carriage or a contract of freight forwarding. Given the complexity the non-harmonised law of freight forwarding brings (Smeele, 2015), we decided to focus on carriage contracts only.

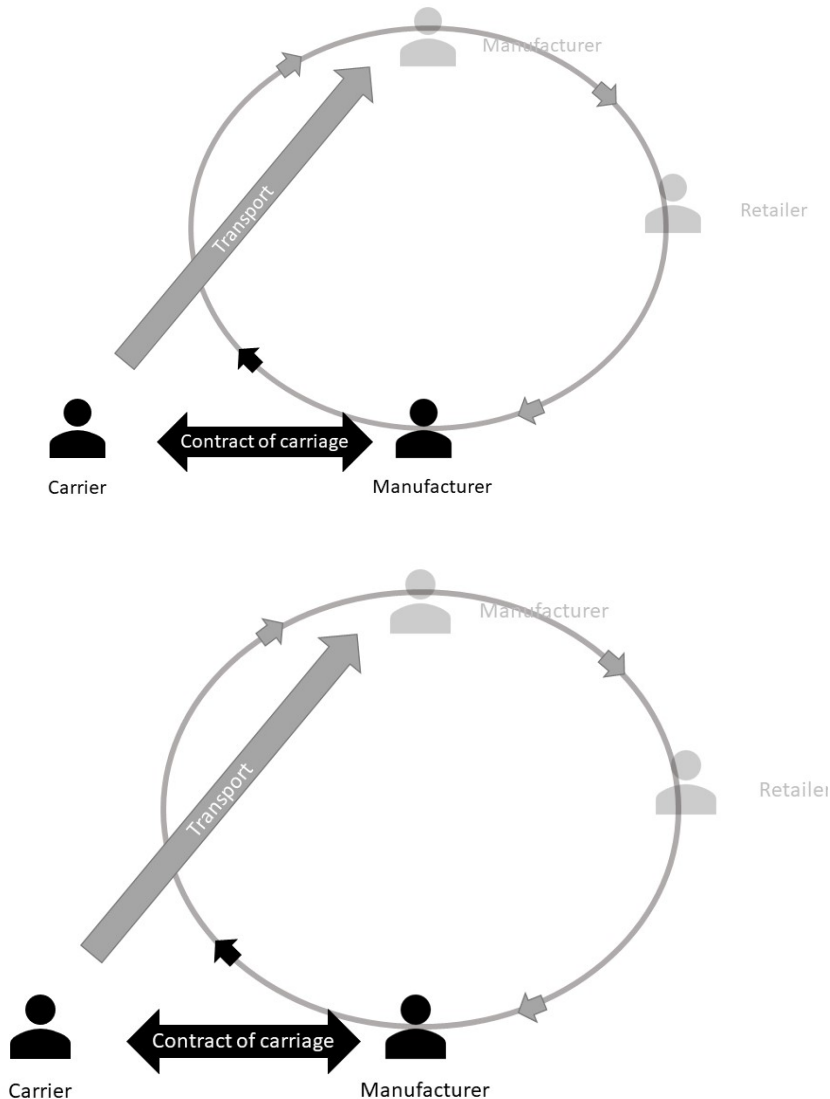
Figure 1: Reverse supply chain including sales transactions



Source: Authors

Like the forward supply chain, the reverse supply chain usually combines different contracts of sales and contracts of carriage as seen in Figure 1.⁵ The contract of carriage and the contract of sale must be considered as two separate contracts. A factual link and the fact that the purchase is often the occasion for the transportation cannot, however, be denied.⁶ The seller under a contract of sale is obliged to deliver the goods and transfer the ownership to the buyer.⁷ Usually the Incoterms, as generally accepted standard clauses in sales contracts, govern how all related costs are to be allocated and the moment when the risk of damaged arrival or loss of the goods passes from one contracting party to another.

Figure 2: Reverse supply chain without sales transactions



Source: Authors

One exception must be made in the case of waste or used materials being shipped as part of the movement of own goods (i.e. no change of legal title). As seen in Figure 2, a contract of sale is then missing. Depending on the complexity of the shipment and the capacity of the company, not even a contract of carriage with an external transport operator is required. Furthermore, if the waste is destined to be destroyed or recycled, the question arises whether there is a contract of sale (which requires transfer of ownership) or a mere (service) contract for work (transfer of ownership is absent).⁸ This mainly depends on the categorisation under national law. The type of contract and especially the contractual obligations that derive from a contract may have an impact on the customs valuation treatment of imported goods.⁹

The value of the goods that are sold, traded and transported is important for several reasons. It is the basis for the compensation in case of loss or damage to the goods under the carriage contract.¹⁰ Moreover, governmental charges and customs duties are based on a certain value of the goods traded.¹¹ Securities and insurance coverage are calculated based on the value of the goods.¹²

We focussed on the importance of the value of goods in the context of compensation for cargo claims and declared customs values. Whereas the value of the goods provides an undifferentiated basis under transport law, customs valuation rules require importers to make certain price adjustments and allow customs authorities in some cases to adjust the declared customs values. This may naturally be the case given the public law nature of customs law where authorities can interfere. However, public law regulations do already determine private law obligations, for example with regards to the carriage of dangerous goods (Reuschle, 2020).

4. Compensation regimes of international transport conventions

International transport conventions are uniform law, mandatorily¹³ applicable within their application scope. The paper focused on the Hague–Visby Rules for international carriage of goods by sea (HVR), the Budapest Convention on the Contract for the Carriage of Goods by Inland Waterways (CMNI), the Montreal Convention (international carriage by air, MC), the Uniform Rules on the International Carriage by Rail (COTIF-CIM) and the Convention on the International Carriage by Road (CMR). Despite their differences regarding the grounds for liability and provided exonerations as well as liability limits, almost all¹⁴ conventions rely on one central criterion as the basis for compensation: the value of the goods which were damaged or were lost. The following explanations provide for an overview of the differences between the provisions – content and ratio-wise.

4.1 Decisive time and location

The approaches pursued by the conventions are based on what value and at which time the compensation is calculated. The differences are mainly between the sea and water-related (maritime) transport convention and the ones for land transport. Further, only CMNI and COTIF-CIM provide rules for wastage, whereby the carrier is only liable for wastage if it does not exceed a certain degree of wastage.¹⁵

Conventions on the carriage of goods by sea and inland waterways refer to the so-called delivery value.¹⁶ This means that the value of the goods is a decisive factor at the time when the goods were delivered.¹⁷

For land transport, Articles 23 (2) and 30 COTIF-CIM refer to the concept of value in a similar way, but in contrast to the maritime approach it relies on the departure value. Contrary to the delivery value, any profits gained by the shipper during the transport as well as incurred freight charges and expenses do not form part of the value (Basedow, 1987).

4.2 Purpose of compensation

In general, there are two different approaches within contract law on how to calculate the compensation of the damages, that is, concrete and the abstract calculation methods (Kötz, 2017). The transport conventions chose the latter by relying on the value of the goods and excluding any consequential damages or loss of profits.¹⁸ Costs for necessary repair procedure or loss of profits are, *inter alia*, not covered by the rather abstract compensation system provided by the conventions (Jesser-Huß, 2020). However, an independent and abstract calculation is impossible considering the peculiarities of each individual transaction, the parties involved and the different market segments that may influence the value of a good (Koller, 2000). Beyond this degree of individuality, abstract and objective criteria prevail.

There are differences between land and maritime transport conventions given the differences in the calculative basis, as explained in the next subsections.

4.2.1 Land transport

The value at the time of takeover by the carrier allows for an abstract regime and protects the carrier from price fluctuations after the commencement of the transport. The system provides legal certainty for the carrier (Koller, 2000). The predictability of the damage relates to the ability of the carrier to choose diligent precautionary methods to comply with the duty of care (Koller, 2000). It also relates to the foreseeability of the damage as a basis for the compensation. This concept was introduced in the English landmark case in *Hadley v Baxendale*¹⁹ which referred to a delayed transport of a drive shaft of a mill and the compensation for delay in production and loss of profits. The loss of profits could not be claimed from the carrier as this was damage that was not foreseeable for the carrier. Certainly, this is a national concept which cannot apply directly to the conventions given their international character.²⁰ However, an abstract boundary of the amount compensable complies with the ratio of the compensation system of the conventions. *Inter alia*, the preamble of the Montreal Convention refers explicitly to compensation based on the principle of restitution which, based on an international linguistic comparison, shows that not an individual restitution in-kind but rather an abstract rebalance of financial cargo-related losses is required.²¹ All other conventions refer to the different value levels and the diminishment of value in case of damage of cargo.²² Moreover, the exclusive and limited character of the compensation and damages types recoverable under the conventions is, in some conventions, even expressed explicitly.²³ The carrier will not be overburdened with uncertain commercial risks between two commercial parties (seller and buyer) and a contract they are not party to (Basedow, 1987). Freight rates can be calculated in a predictable manner (Koller, 2000). Thus, the foreseeability of the extent of the compensation and legal certainty belong to the fundamental purpose of the compensation regimes under the transport conventions.

4.2.2 Maritime transport

The HVR, similarly to the CMNI, allows for a consideration of price fluctuations and increase of the value of the transported goods during the time of the voyage (Herber, 2020). This, however, does not mean that the compensation is unpredictable. This is due to the contractual nature of a claim for damage or loss of cargo under a contract of carriage, whereby contractual breaches can be predicted and the amount of damages estimated.²⁴ The type and amount of compensation must lie within the contemplation of the parties.²⁵ The test of reasonable foreseeability established in *Hadley v Baxendale*²⁶, as explained in Section 4.2.1, applies as well. The same line of argument was later reaffirmed in *Overseas Tankship (UK) Ltd v Morts Dock and Engineering Co Ltd*²⁷ where furnace oil leaked from the vessel *The Wagon Mound* while being docked in a wharf for repair. During the welding process, hot metal fell on cotton waste. A huge fire was caused to the wharf and ships. The

Privy Council ruled that this damage was not foreseeable for a reasonable person in this situation – in this case, the crew that allowed the oil leak. Similar to the land transport conventions, within a maritime context a price resulting from a subcontract of sale which was concluded several days before delivery took place cannot influence the compensation basis, as this is unpredictable for the carrier.²⁸ The specific moment and circumstance of sound delivery under Article 5(4) HVR lightens the carriers burden to submit evidence against a certain price at a certain hypothetical point in time (Baughen, 2015). Further, Article 5(4) HVR as well as Article 19 CMNI enable a restriction of the types of damages recoverable by naming loss and damage of cargo or ‘in connection with the goods’²⁹ explicitly. Despite being applied controversially sometimes,³⁰ the restriction of the types of damages recoverable is recognised.³¹ The compensation is thereby predictable and abstract.³² In this way the ratio that commercial risks connected with the sales transactions must not go to the detriment of the carrier holds true for the compensation for loss or damage to cargo under maritime conventions.

4.2.3 Conclusion

The compensation of transport damages and losses is based on an abstract calculation method, enabling the carrier to predict the amount of damage and to adjust the required precautionary measure to be taken to exercise the required due diligence.

4.3 General basis for calculation

Most of the transport conventions³³ provide for a three-tier scheme to calculate the compensation to be applied in the following prescribed hierarchical order.³⁴ As shown in Section 4.1, the decisive time and locations for the calculation differ between the conventions on land transport and sea transport. This is indicated as ‘delivery value’ and ‘pre-shipment value’ in Table 1.

Table 1: General basis for calculation of compensation per convention

Conventions	Compensation			Type of value
	Preferred	Second-best	Fallback option	
HVR (sea)	Commodity exchange price	Market price	Normal value	Delivery value
CMNI (inland waterway)	Commodity exchange price	Market price	Normal value	Delivery value
CIM (rail)	Commodity exchange price	Market price	Normal value	Pre-shipment value
CMR (road)	Commodity exchange price	Market price	Normal value	Pre-shipment value
MC (air)	No provision	N/A	N/A	Pre-shipment value

Source: Authors

4.3.1 Market price and its relation to invoices

For this paper the market value was of particular interest, because it shows the importance of customs law for the compensation for cargo claims as well, that is, that customs duties can form part of the compensation.³⁵ For all conventions, the invoice issued for the sales transaction has some indicative impact on the assessment of the market price.³⁶ For maritime conventions, the invoice only serves as a basis to determine the market price if the goods were sold upon arrival at the place of destination (Baughen, 2015).

Customs duties become due if goods are being imported into a different customs territory. These duties are directly included in the delivery value according to maritime conventions as the delivery usually only takes place after the border was crossed (Herber, 2020). Customs duties and freight therefore form part of the standard value. According to Article 19(5) CMNI, this is explicitly left to national law. One can, however, not deny the influence of customs duties on a market price of the product.

Even though land transport conventions rely on the pre-shipment value and thus before the goods enter another customs territory, customs duties can still play a role as well. Here, the decision of the House of Lords in the *Buchanan v Babco* case³⁷ is of importance. The case is about a shipment of 1,000 barrels of Scottish whisky shipped from England to Iran. In the English market a liquor tax of GBP30,000 was being imposed, which was absent in the Iranian market. The House of Lords rightfully relied on the whisky price at the Iranian market, which was significantly lower than the English one. Taxes thereby indirectly had an influence on the market price of the cargo. Further, taxes not yet paid, *inter alia* in case of a suspension from fiscal charges for consumption, do not form part of the value since at the time of taking over by the carrier they have not been paid.³⁸ Accordingly, only the country of importation is decisive for the market price.

4.3.2 Lack of rules on loss or damage of waste and used goods

Despite the absence of specific rules on valuing waste or used products, the rules provided by the conventions are in general suitable for waste and used goods. In the case of used goods, *inter alia*, the market level of the price a seller can get from the final customer is decisive (Koller, 2020). The fact that waste and used goods are diminished in value does not mean that a market price is entirely absent. Eurostat released an overview about price indexes of waste material such as glass, paper and plastic.³⁹ It was pointed out that these markets are less developed than, for example, scrap metal markets.

There is case law on how to determine the compensation of lost or damaged second-hand cargo. In general, there is a difference between the replacement value and scrap value. The German Reichsgericht once ruled that the replacement value is the crucial basis for compensation of damaged furniture during removal, instead of the value of the used furniture which was destroyed.⁴⁰ Thereby an abstract and hypothetical value basis was chosen to protect the owner of the furniture from an impossible burden to prove a particular value.

For the shipment of own, *inter alia*, used machinery or products destined for manufacturing, the same must apply: the replacement value is decisive (Koller, 2000). Another approach could be to rely on the scrap value. This was the approach taken by the Court of Appeal in the case of the second-hand vessel *The Alecos M*, which was sold without a required spare propeller.⁴¹ The Court of Appeal overruled the decision rendered by the Court of First Instance⁴² which relied on the replacement value of the spare propeller and deemed the scrap value of the missing propeller decisive instead.

In the case of waste and used products, the value basis certainly depends on the type of material. While steel scrap material has a certain value relying on a rather steady market, plastic and paper has not.⁴³ This mainly has to do with the uncertainty of recyclability. Plastic-paper combinations require difficult separation and may sometimes not even be recyclable at all. This usually depends on the expertise of the recycling company, the degree of inspection and mix of materials. Further, there is not even legal

certainty about the required recycling standards and conditions for the end-of-waste status within Europe (Umweltbundesamt GmbH (EAA) & ARCADIS Belgium NV, 2020). A replacement value is suitable in the case of second-hand material, thus used cargo which is not yet waste. The situation is comparable to furniture removal. In the case of waste, a replacement seems hard to envisage, so it is left to the invoice price. In the case of a transfer of own goods, this figure may not even be given. Thus, the value-based compensation system provides for an abstract compensation to a certain extent. In the case of waste material with a huge fluctuation, the desired predictability may not be provided for the carrier. On the other hand, waste without a realistic chance of full recovery may provide for a value of zero, letting the compensation system run dry.

5. Cargo value in customs law

Cargo values play an important role in determining the amount of customs duties dutiable. Customs duties become due if goods are released for free circulation in a customs territory (i.e. import duties) or if the goods are exported from a customs territory (i.e. export duties). For determining import duties, a distinction can be made between specific rights (i.e. the import duties are based on, e.g. the weight, volume or quantity of imported goods) and *ad valorem* rights (i.e. the import duties are calculated as a percentage of the value of the imported goods). Three elements are important for determining *ad valorem* import duties; these are the tariff classification, the origin and the customs value of the imported goods. In most customs territories such as the EU, the rules for determining the customs value are based on an internationally accepted system of the WTO called the Customs Valuation Agreement (WTO CVA).⁴⁴ The WTO CVA provides for the methods of valuation, which need to be applied in a prescribed hierarchical order. The transaction value is the primary and preferred customs valuation method which is used in 90–95 per cent of all imports (World Customs Organization [WCO], 2018). Based on Article 1(1) of the WTO CVA, the transaction value is the ‘... price actually paid or payable for the goods when sold for export to the country of importation ...’. A more detailed discussion on the application of the transaction value can be found in Section 5.1.

If the transfer of goods to another customs territory is not subject to a sale or the legal conditions for applying the transaction value are not met, the customs value should be based on one of the alternative valuation methods. These methods are to be applied in the order established by Articles 2 to 7 WTO CVA, as follows:

- The transaction value of identical goods (Article 2 WTO CVA)
- The transaction value of similar goods (Article 3 WTO CVA)
- The deducted value method (Article 4 WTO CVA)
- The computed value method (Article 5 WTO CVA)
- The fallback method (Article 6 WTO CVA).

The question is how these valuation methods apply to goods subject to reverse supply chains. This is not a simple question to answer since goods in reverse supply chains are typically not subject to a sale (upon their return) and, consequently, are to be valued based on an alternative valuation method. This question is expanded below and, in particular, answers the question of how the customs value of damaged or defective goods (Section 5.2), as well as waste and used products, (Section 5.3) should be determined. For that purpose, some non-binding instruments from the Technical Committee on Customs Valuation of the World Customs Organisation (TCCV WCO) are also discussed as they shed light on the customs valuation treatment of damaged goods. For the EU specifically, some rulings of the CJEU as well as non-binding instruments of the Customs Expert Group, Valuation Section (CEG VAL) are also part of the discussion. Subsequently, we elaborate on the options the customs

administration has to adjust declared customs values as this is also relevant for using customs values for compensation purposes as explained in Section 3.2 (Section 5.4). As the transaction value method also remains the primary and preferred method in the case of reverse supply chains, the application of the transaction value method is discussed in greater detail (Section 5.1).

5.1 Application of the transaction value method

As discussed, the transaction value is the primary and preferred method to value imported goods for customs purposes. It is based on the price paid or payable for the goods sold for export to the country of importation adjusted by certain price elements⁴⁵ and can be used assuming that four cumulative conditions are fulfilled.⁴⁶

To apply the transaction value, it is essential that the goods are sold for export. The concept of ‘sale’ has not been defined in the WTO CVA, however, from non-binding instruments of the TCCV WCO it can be extracted that the concept of a ‘sale’ should be interpreted in the widest sense possible.⁴⁷ A sale is, in our view, any case where a party acquiring the goods bears at some point in time financial risk over the goods.⁴⁸ Financial risk over the goods is usually obtained if a party purchases the goods and thus obtains legal title to the goods. Passing of legal title is usually arranged by a contract of sale rather than, for example, a contract of work, hire or leasing.⁴⁹ Therefore, according to the TCCV, an arrangement whereby goods (i.e. waste or scrap) are being imported for destruction with the sender paying the importer for their services does not constitute a sale (for export) and, as a consequence, the customs value should in such instances be based on an alternative valuation method.⁵⁰ In the case of a series of sales, the TCCV has a preference to determine the transaction value on the price paid in the last sale occurring prior to the introduction of the goods into the country of importation (last-sale-for-export principle).⁵¹ While the EU applies the same principle,⁵² there are also countries in favour of applying the first-sale-for-export principle or other approaches.⁵³

5.2 Value of damaged or defective goods

On their international journey from one customs territory to another, goods may become damaged or defective. Upon arrival and before the goods are released for free circulation, it may be decided to send the goods back to the customs territory from where they have been shipped. In that case no customs debt arises in the intended customs territory of arrival, and thus no customs value needs to be determined. The damaged goods may, however, also be released for free circulation. In Explanatory Note 3.1, the TCCV WCO makes the distinction between damaged goods whereby upon importation the shipment is found to be: (i) totally damaged, having no value; or (ii) partially damaged, or having scrap value only.⁵⁴ In the first case, on the presumption of the existence of national procedures for the re-exportation, abandonment or destruction of the goods, the TCCV WCO held that there is no liability to duty. That also applies to the second case unless the importer takes delivery of the goods. In such cases the transaction value cannot be used (for the damaged part of the shipment) as the sales price was not settled for damaged goods according to the TCCV WCO. It is, however, arguable in our view that the transaction value can still be used for the imported damaged goods, but that an allowance in their value to the extent of the damage should be considered. For instance, if those goods are repaired post-import, it should be permitted to make an allowance in the value of the damaged goods equal to the repair costs into account, to the extent the repairs relate to the damage incurred prior to import are reasonable and well-documented.^{55/56} There are customs jurisdictions such as the EU that allow importers to consider an allowance, provided that some conditions are met.⁵⁷ Manufacturers may make a mistake during the production that increases the risk that a good becomes defective. The CJEU considers a manufacture-related risk that an imported product may actually become defective after importation already sufficient to allow importers to take into account an allowance.⁵⁸ The reason for

this, according to the CJEU, is that the risk that the goods become defective has negative repercussions on the economic value of the imported product and, accordingly, on its customs value.⁵⁹

Without undermining our view that the transaction value should in some cases also be acceptable to appraise imported goods that are partially damaged, the transaction value may in some customs jurisdictions be rejected if goods are partially damaged, and cannot be used if the damaged goods have scrap value only. In those instances, the customs value needs to be determined based on an alternative valuation method. As identical or similar goods cannot, in most of these cases, be identified, the transaction value of both identical and similar goods cannot be utilised. The deducted value method can only be used for partially damaged goods if these are sold after importation. Based on the deducted value method, the customs value is in such cases determined on the price per unit derived from a sale of goods after importation, adjusted by deducting an amount for the price elements provided for in Article 5(1)(a) WTO CVA.

If the goods are not sold after importation, it should be tested whether the computed value method can be applied. This is probably not the case, since the damaged goods are not manufactured or produced as such. Therefore, the customs valuation will be determined using the fallback method. In that regard, there are two options for valuing the goods for customs purposes: i) flexible application of the previous methods; ii) using another appropriate method which is consistent with the principles and general provisions of the Agreement and of Article VII of the General Agreement and based on data available in the country of importation.⁶⁰

For goods that are partially damaged, it can be defended that the customs value can probably be determined based on the initial sales price, whereby an allowance in the value of the damaged or defected goods is considered – not by using the transaction value directly, but via the fallback method ('modified transaction value'). For determining the customs value of goods having scrap value only, we refer to Section 5.2.

Where the goods are sent back because they are damaged or defective, the customs value of the goods also needs to be determined for the purpose of importing these goods in the country the goods are returned to. As the goods are at that point not or no longer subject to a sale for export,⁶¹ the goods need to be valued based on an alternative valuation method. Following the reasoning as set out above, the damaged or defective goods are likely to be valued using a modified transaction value under the fallback method. This modified transaction value is usually based on the sales price that was initially agreed upon between the sales parties, whereby an allowance in the value of the damaged or defective goods is to be considered.

5.3 Value of waste and used products

In principle, for valuing waste and used products for customs purposes, the same exercise should be performed as for damaged and defective goods in Section 5.2, as there are no special valuation rules for these goods. This means that also for valuing the goods, the customs valuation methods must be applied in the prescribed order as set out in the introduction to Section 6. In other words, if waste is subject to a sale for export, the customs value is to be established on the transaction value assuming the conditions for applying the transaction value are fulfilled. If not, it should be assessed which alternative valuation can be applied.

For assessing which customs valuation method applies in the EU, the CEG VAL makes a distinction between three types of waste and used products:

1. waste containing recoverable materials
2. waste to be further processed
3. waste to be destroyed/neutralised.

The first category of goods are likely to be appraised by using the transaction value method as typically this type of waste will be subject to a sale for export because it contains recoverable materials which have an economic value (e.g. scrap iron used for the production of steel).⁶² If the goods are to be further processed or reactivated (second category), the goods are typically placed under a suspension regime upon arrival before releasing the processed products that result from the waste (i.e. inward processing procedure in the EU). In the EU, the customs value will in that instance be based on either the customs value applicable to the imported goods at the time of acceptance of their customs declaration or the customs value of the processed products at the time they are released for free circulation provided that the goods are subject to a sale.⁶³ If this is not the case, the transaction value cannot be used unless the processed products are sold before they are brought under the procedure for releasing the goods for free circulation. In that case, the price paid or payable for those processed goods can be used as the basis to determine the customs value under the transaction value method. If such a sale does not occur, the alternative valuation methods should be applied in the order as described in the introduction to Section 6 (the assessment of the applicability of the alternative valuation for these instances is included below). As regards the third category, waste or used products that are brought to the EU for the purpose of being destroyed or neutralised are usually not subject to a sale for export according to the CEG VAL. It is usually the exporter that pays the importer for the service they will render, that is, destroying/neutralising the goods. You could therefore argue that the goods have a negative value, since the payment is made by the exporter rather than the importer. Hence, the transaction value cannot be used, and an alternative valuation method should be applied.

The specificity of waste as imported items makes it difficult to identify identical or similar goods for each of the three categories. Hence, the transaction value of identical or similar goods as well as the deducted value method cannot be used in most cases. An exception applies regarding the applicability of the deducted value method that can be used in instances where the waste is further processed, and the processed goods are sold after releasing them for free circulation. If that is not the case, the fallback method should be utilised as the computed value method cannot be used, since waste is not 'produced' as such. For the fallback method, the CEG VAL provides examples on how the customs value of waste can be established by using other appropriate methods. For waste that is going to be destroyed, a symbolic value (i.e. EUR1) is an acceptable way of appraising goods as in those instances the imported items do not represent any economic value. This is, however, only possible if a sale is lacking and, after the products are destroyed, no scrap remains that represents any value. In cases where processed goods are obtained from waste, which are considered commodities, the CEG VAL takes the view that the prices quoted on recognised commodity exchange markets in the country of importation can be used as a starting point to calculate the customs value under the fallback method. This seems in our view a fair and pragmatic approach for these instances.

5.4 Competence of the customs authorities to adjust declared customs values

Customs administrations are legally in the position to require (additional) information from the declarant for determining whether the declared transaction value forms a proper basis of value for customs purposes. This can be the case if a customs administration has reasonable doubts that the declared transaction value does not represent the total amount paid or payable for the imported goods or in case they have doubts whether the conditions for applying the transaction value have been met. If the doubts of the customs authorities are not dispelled after giving the declarant the opportunity to provide additional information, the customs administration in charge may reject the transaction value and adjust the declared customs value based on another customs valuation method. The decision of the customs administration should be properly reasoned, and they should adhere to the hierarchy established between the customs valuation methods. Also, where the declarant used an alternative valuation method to declare the goods for import, the customs authorities may request additional

information in case they have doubts about whether the conditions have been applied properly. If their doubts are not dispelled, the actions of the customs authorities are like instances where they reject the transaction value.

6. Results of the current compensation systems

The results of the current compensation regimes under the conventions strongly depend on the value of the goods. Loss of, or damage to, goods with a small or negligible value, or that even causes costs, may result in no compensation. Carriers are entitled to receive carriage charges for their transport services. The following scenarios show the consequences of loss and damage of goods with almost no value, also in relation to the carriage charges.

Moreover, the consequences differ between the different scenarios we described at the beginning, namely if a contract of sale was concluded or is absent. Further, a distinction must be made regarding whether the goods arrived in a damaged condition or were lost.

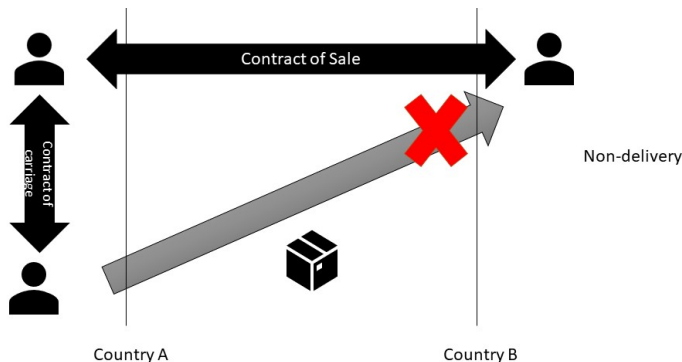
6.1 Two contracts

In Figure 1, as explained in Section 3.2, there is a contract of sale and a contract of carriage. For our assessment we focussed on two types of breaches of the contract of carriage. The carrier may either not deliver the goods (6.6.1) or deliver them in a damaged condition (6.1.2).

6.1.1 Non-delivery

For land transport, the consignor or shipper may reclaim the freight charge from the carrier that was already paid if the goods do not entirely or only partially arrive, according to Article 23(4) CMR, Article 30 § 4 COTIF-CIM (Figure 3). Furthermore, both provisions allow for a refund of customs duties from the carrier in such cases. According to the clear wording of the provision, freight charges cannot be recovered if the goods arrived in a damaged condition. Costs of reversed transport of damaged goods are neither recoverable under Article 23(4) CMR.⁶⁴ A carrier that does not transport the goods by rail or road until the agreed point of delivery will thereby be punished by the obligation to repay the freight charge independent from the compensation based on value. Such a concept does not exist for carriage by air under the Montreal Convention. In the case of maritime transport, the result does not differ significantly. Article 10 CMNI merely states that the shipper is obliged to pay the freight charges.

Figure 3: Non-delivery under two contracts



Source: Authors

In general, however, under common law but also under civil law, payment of freight charges is due at the end of the voyage, hence upon successful delivery and by the consignee.⁶⁵ The HVR does not specify the time when payment is due. However, freight prepaid clauses, whereby payment is due at the beginning of the shipment, are commonly incorporated in bills of lading (B/L) – that is, in the case of a sales contract on the basis of the Incoterm clause CIF (Rabe, 2018; Thume, 2020; Aikens et al., 2010).⁶⁶ Thereby, the consignee will be protected from illegitimate claims for freight charges.⁶⁷ The obligation to pay freight charges is already included in the purchase price and was thereby already charged by the shipper as seller from the consignee as buyer (Rabe, 2018). The payment by the shipper is considered an ‘irrevocable payment [instead of] a loan repayable’⁶⁸ and thus at the shippers’ risk, if no clause was included that speaks to the contrary (Williams, 2016).⁶⁹ Sometimes it is even included in the B/L that advance payment is not repayable (Dockray, 2004). Thus, in the case of loss of cargo, no reduction of the compensation to the extent of the freight charges or to the customs duties is possible (Herber, 2020).

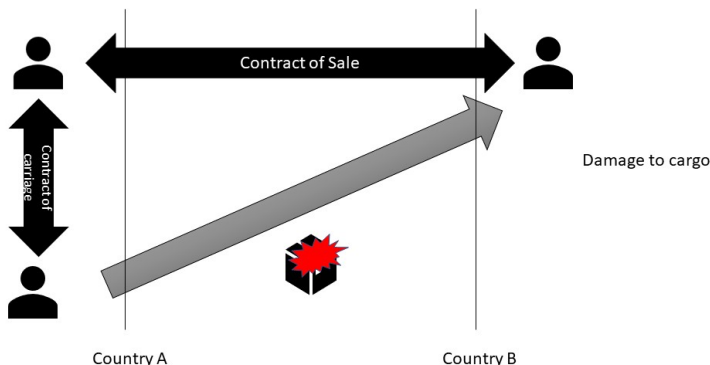
Article 19(5) CMNI explicitly leaves open which consequences damage and loss of cargo have to the payment of freight charges. This is left to national law according to Article 29 CMNI. Under the CMNI regime, it may therefore be the case that the freight charges are not recoverable even in the case of loss of cargo.

Given the presumption that the consignor or shipper concludes a contract of sale, damage claims in case of non-delivery will arise within the contract of sale. The shipper will then most likely seek recovery from the carrier in this event. This enhances the change that the carrier complies with the duty to deliver the goods.

6.1.2 Damage during shipment

Due to the existence of the contract of sale and potential damage claims by the buyer against the seller based on a certain purchase price, the carrier will also face recourse claims to a certain amount. Since the invoice issued based on the sales contract is a strong indication of the market price, the compensation will be calculated on this basis. It also means that compensation must be higher than zero. Consequently, the damage claims may discipline the carrier and its compliance with the obligations under the carriage contract (Figure 4).

Figure 4: Damage during shipment under two contracts



Source: Authors

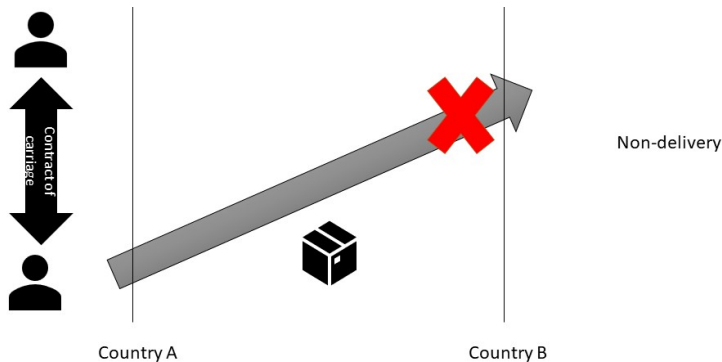
6.2 Movement of own goods

The situation is entirely different but rather severe if a sales contract is lacking. This is a common scenario for the shipment of waste, especially if the waste is to be destroyed/neutralised.⁷⁰ Also here, we focussed on two types of breaches of the contract of carriage, namely if the carrier does not deliver the goods (6.2.1) or delivers them in a damaged condition (6.2.2).

6.2.1 Non-delivery

In general, the consignor can reclaim the paid freight charges if the goods did not arrive after land or rail transport. In the case of maritime and inland waterways transport the freight charges are not chargeable. If a freight prepaid clause was agreed upon – which is customary practice – reclaiming the freight charge would be difficult. Consequentially, no incentive to deliver the cargo to the destined point of arrival exists (Figure 5).

Figure 5: Non-delivery in case of movement of own goods

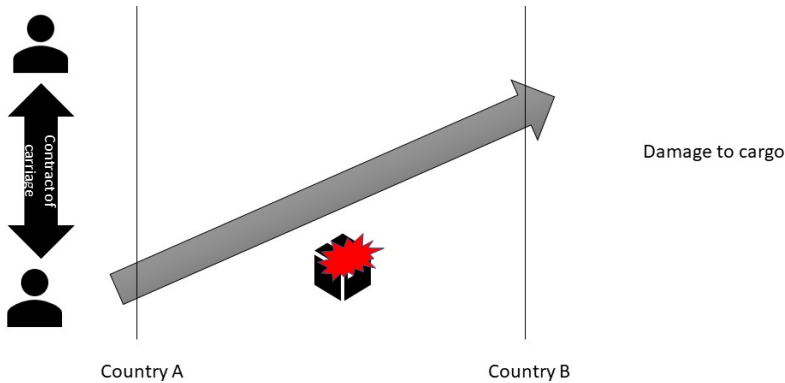


Source: Authors

6.2.2 Damage during shipment

Since the invoice of a contract of sale is missing, the strong indication for the market price is also lacking. If the value of the goods is close to zero, the cargo interest will suffer no or very little financial loss. Based on this no or little compensation can be claimed and no or few negative consequences arise for the carrier in the case that the goods' conditions worsen during the transport (Figure 6). The carrier has a duty to prevent the goods from any harm (Hörnig, 2019), and under the CMR, the carrier is obliged to exercise utmost care.⁷¹ This applies in a similar way to carriage by rail based on the almost identical wording of Article 23(2) COTIF-CIM compared to Article 17(2) CMR. A violation of this duty does not result in any financial detriment for the carrier if the value of the goods is too small. This applies similarly to carriage under the HVR and CMNI as they base their compensation systems on the value of the goods as well. While under Article 4(1) HVR the standard of care equals due diligence and reasonable care (Ramming, 2019), the carrier under CMNI must exercise utmost care (Jaegers et al., 2015). Therefore, where the conventions require a stricter standard of care, the lack of incentive to comply with the duty of care is even more delicate.

Figure 6: Damage during shipment in case of movement of own goods



Source: Authors

6.3 Consequences

The discussion above shows that the carrier will usually be punished for cargo loss by being obliged to repay the freight charges for the cargo to the extent the shipment was fulfilled. Also, customs duties that were paid in advance in the case of land transport must be repaid or cannot be charged in the case of sea carriage. Only in the latter case, where freight prepaid clauses were agreed upon, the loss of cargo may even be a business option for the carrier. Thereby, the risk of environmental pollution due to unlawful unloading exists. For all other scenarios there is at least a financial incentive for the carrier to carry cargo with small or no value to the agreed destination. This holds even more for shipments of own goods – the more usual case for waste shipments, where the indicative effect of an invoice of the sales transition is missing. If one considers the burdensome nature of waste, an illegal disposal may even be to the benefit of the cargo interest, too. The current legal status quo thereby contributes to environmentally undesired collaboration between shippers and carriers.

However, this is not considered true in case of damage. As shown above, the carrier is obliged to exercise a certain degree of care and protect the goods from any harm, otherwise they are, in general, liable and must pay compensation. In the case of low-value goods, the risk of compensation appears to be merely a theoretical one. A financial incentive to comply with the duty of care is missing, which causes the risk of efficient breaches of contract whereby non-compliance with the obligations seems more economically feasible than the original compliance (Birmingham, 1970). Thus, a secured reverse supply chain to the recycling facility cannot yet be provided by the current compensation model of the transport conventions.

7. Towards a more environmentally friendly compensation system

As mentioned in Section 1, the general aim is that waste will not be disposed unlawfully but will reach the recycling facilities successfully to be recovered and turned into a valuable resource. If waste or used materials become lost or damaged while being transported, the existing transport conventions provide for no or limited compensation. Therefore, an incentive for the transporter to transport its goods to the recycling facilities is lacking.

The customs valuation methods on the other hand aim to determine the economic value of the imported goods. Based on this principle it does not seem possible, from a customs valuation perspective, that goods will be given a negative value. Moreover, several rules are in place to ensure that goods are not

undervalued; the customs authorities may adjust the declared customs values in some cases as set out in Section 5.4. Therefore, customs valuation methods may be an appropriate means to determine the compensation and may evolve the compensation systems of the transport conventions towards a more suitable one for the circular economy.

The following section explains which customs valuation methods can serve as a basis to solve the errors in transport law (Section 7.1). These considerations will be used to propose a bottom-up and top-down approach (Section 7.2).

7.1 Adding a financial incentive

The question is in which scenarios customs valuation methods can play a role in determining the compensation of waste and used materials. The customs valuation methods do not provide for rules to value goods that are lost along the way, simply because a customs value does not need to be determined for goods that are not being imported (non-delivery, see Sections 6.1.1 and 6.2.1). In cases where waste and used products become damaged on their way to the country of importation, a customs value needs to be determined and thus the customs valuation methods can in those cases, in principle, be used (damage during shipment, see Sections 6.1.2 and 6.2.2).

As explained in Section 5.1, in such cases – also for waste and used products – the primary and preferred method to determine the customs value is the transaction value (‘price paid or payable’). Customs valuation methods offer several possibilities to objectify the declared customs value making it an appropriate basis to determine compensation. To ensure the goods are not undervalued, some price elements, for example, transport costs up to the customs border of the EU, need to be added to the price paid or payable for determining the customs value if they are not yet included in this price. Then there is also the possibility for customs authorities to reject the transaction value, for example, when the customs authorities have doubts about whether the declared customs value represents the actual price paid or payable.

Also, in cases where the transaction value cannot be used as a method to determine the customs value of imported waste or used goods, the alternative valuation methods may provide an appropriate basis to determine compensation. Some alternative valuation methods allow the use of price indexes to appreciate (part of the) imported waste or used materials,⁷² although in such cases an allowance for depreciation should be provided (Section 4.3.2). The only occasion when customs valuation methods cannot be used is when the transaction value can be used to appreciate waste or used materials upon importation and their intended use is to be neutralised or destroyed. In those cases, at least the EU allows importers to use a symbolic value (i.e. EUR1). This does not seem to be an appropriate basis for compensation, as it does not provide an incentive considering the low value that is given to the imported goods in such cases.

When a contract of sale is lacking, and the customs value is arrived at by using the fallback method, the value in a recycling contract could be considered as the basis for the customs value as well as the compensation system. In cases of shipment of waste, however, the Waste Shipment Regulation (WSR)⁷³ provides for take-back obligations in case the shipment cannot be completed as intended. This especially concerns cases where the recovery facilities reject a shipment received.⁷⁴ The costs for the transport, recovery or disposal in cases where the take-back obligation will be imposed by the authorities can be charged to either the notifier or other persons as appropriate.⁷⁵ Either way, costs will arise. This potential financial interest and a hypothetical recycling contract can be taken as a basis for the valuation. The operation based on hypothetical (sub-)contracts is a model which is also not new for transport law. In case of multimodal transport, the applicable liability system can be determined according to the network-system⁷⁶; a system that takes the hypothetical unimodal subcontracts into consideration.⁷⁷

7.2 Bottom-up vs top-down approach

To achieve an adjustment that prevents efficient breaches of contract, two alternative approaches are possible. The first aims for a bottom-up approach, where the private parties include different contract models to facilitate the successful closed material loop.

7.2.1 Bottom-up challenged by mandatory transport law

Before answering the question on what suitable voluntary contract options could look like, it is necessary to take the mandatory and restrictive nature of the transport conventions into account. This effectively prevents contractual arrangements deviating from the convention from being valid.⁷⁸ However, some room for contractual freedom exists – even under the CMR, which is the only convention that provides for a comprehensive mandatory regime where not even clauses burdening the carrier more than prescribed under the convention are allowed.⁷⁹

Article 27 MC allows for a greater liability and a more burdensome obligation for the carrier. This may even encompass an extension of liability rules (Freise, 2020). Although under Article 25 COTIF-CIM this special interest is only possible for timely delivery, Article 5 S.3 COTIF-CIM similarly allows for a greater range of obligations for the carrier. Thereby, an environmental obligation of care by the carrier may be agreed by the parties. This arrangement can even form part of the corporate sustainability strategy of the shipper's company or be added to the portfolio of the carrier. Further, some conventions allow for a declaration of a certain interest in delivery payable in addition to the compensation,⁸⁰ thereby recovering other types of damages. Here, an environmental interest can be declared, including a financial incentive to comply with the duty of care in the contract.

The HVR allows for a deviation from its regime only with regards to an allocation of obligations beyond the period of responsibility prescribed in the convention.⁸¹ In general, no further deviations and possibilities to specify extra charges are explicitly permitted. However, cost allocations are possible to a greater extent.

In conclusion, there are options to make amendments to the contracts. Increased responsibility of the carrier will, however, always be reflected in freight charges and costs charged by the carrier. This, in return, makes it rather unlikely that parties agree on these contractual options. Public pressure and visibility in corporate strategies may pay off and cause the seller and consignor, or shipper, to nevertheless include these clauses.

7.2.2 Top-down approaches

It is possible for importers to deviate from the customs valuation rules while declaring their goods for import. All stakeholders – importers, customs authorities and the judicial system – should adhere to the customs valuation principles, and these rules thereby regulate the valuation issue from a top-down perspective as they are imposing non-negotiable rules on the stakeholders.

With regards to the recommended intervention by courts, the focus should lie on contractual clauses that facilitate non-compliance. The freight prepaid clause constitutes a potential risk for compliance and here, restrictive application is suggested. In the case of the CMNI, the freight charges issues are left to the national law and therefore governmental actions seem more appropriate. It may be an option to interpret the standard of care for maritime transport of waste and used products in a stricter way; under land transport conventions, the utmost care is already the well-established standard of care. This may also be an option under the maritime conventions by restrictively interpreting 'due diligence', for example in Article 4(1) HVR.

Fines or separate ecological charges may be imposed for waste shipment to ensure a successful arrival. By adding price elements or making upwards adjustments to the value of the goods, national regulators may influence the amount for compensation for the better. The transport conventions do not permit an

agreement based on compensation or a lump sum. However, they provide for the option to declare the value in the transport contracts.⁸² This option can be chosen to prevent the application of the limits of liability that usually apply under all transport conventions.⁸³ For example, an electronic device with an economic value of EUR700 is destroyed during transit. Then, the limit of the compensation payable by the carrier amounts to 8,33 Special Drawing Rights (SDR)⁸⁴ per kg. This results in a compensation lower than EUR100 in the case of lightweight electronic devices. By declaring the value of EUR700 in the transport contract, the full compensation for valuable goods can be assured. In the case of goods with a small or negligible value, the declaration of value does not, however, provide a solution for the parties. In that case a solution would be if the European legislator was granted power to influence the market price by using the notion of the declared value ('top-down approach'). Thereby, the European legislator can intervene where the parties are not permitted to conclude agreements on a compensatory basis. Such mechanisms already exist, for instance in form of the carbon price and emissions trading system for aviation.⁸⁵ In that case the pollution of the common negative environmental impact on 'air' by aviation was internalised and imposed on the airlines as a fee (Remeur, 2020, p. 3). Also, in this case a top-down approach is applied since governmental action is required (i.e. the internalisation is not left to the contracting parties). In addition, specific training to comply with a greater standard of care for waste shipment may be made mandatory for carriers of waste shipments. Here a parallel can also be drawn with aviation, where a secured supply chain is already a reality to protect the surface from potential aircraft crashes and terror attacks.⁸⁶ This model can thus in our view be transferred to ecological supply chain security.

7.3 Conclusion

The compensation systems provided by the conventions are far from perfect and may even facilitate environmental pollution. There are possible ways in which the parties can amend their contracts towards a more environmentally friendly and circular practice. This may be appreciated by customers. Furthermore, European, governmental and judicial actions should be considered. Environmental protection should be kept in mind when interpreting the conventions and making use of the provided contractual freedom. Thereby a closed value chain can be ensured, and resources may be protected from being disposed in a landfill; only then the transition towards a true circular economy can be achieved.

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Notes

- 1 <https://www.nytimes.com/2021/08/30/business/supply-chain-shortages.html>
- 2 So, *inter alia*, regarding the liability of the carrier in case of damage that was not caused by the goods they carried: Hoge Raad in *RTT v. Cargofoor*, 15 April 1994, ECLI:NL:HR:1994: ZC1333.
- 3 <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20210429-1> (accessed 1 October 2021).
- 4 The Waste Framework Directive 2008/98/EC defines waste as ‘any substance or object which the holder discards or intends or is required to discard’. See Article 3 No 1 Waste Framework Directive.
- 5 We acknowledge that there are approaches to rely solely on a servicing contract instead of a sales contract, (Pongrácz & Pohjola, 2004). The current customary practice, however, relies on sales transactions as for example exemplified by the frequent use of the Incoterms, which are risk-passing clauses tailored to the contract of sale, <https://iccwbo.org/resources-for-business/incoterms-rules/incoterms-2020/> (accessed 23 January 2022).
- 6 *Inter alia* visible in Article 32 UN Convention on Contracts for the International Sales of Goods (CISG):
(1) If the seller, in accordance with the contract or this Convention, hands the goods over to a carrier and if the goods are not clearly identified to the contract by markings on the goods, by shipping documents or otherwise, the seller must give the buyer notice of the consignment specifying the goods.
(2) If the seller is bound to arrange for carriage of the goods, he must make such contracts as are necessary for carriage to the place fixed by means of transportation appropriate in the circumstances and according to the usual terms for such transportation.’
- 7 Article 30 CISG.
- 8 There may be sales contracts with elements of service or production, so-called mixed contracts. These are, *inter alia*, subject to the CISG under Article 3(2) if the sale part forms the preponderant part (Mistelis & Raymond, 2018).
- 9 The ECJ, for instance, decided in the *Christodoulou* case that an arrangement in a working or processing contract could still constitute a sale for export, see ECJ 12 December 2013, C-116/12 (*Ioannis Christodoulou v Elliniko Dimosio*), ECLI:EU:C:2013:825, para 60.
- 10 See Section 4.
- 11 See Section 5.
- 12 *Inter alia* with regards to liens Article 20 Salvage Convention.
- 13 Article 3 (8) HVR, Article 25 (1) CMNI, Article 5 COTIF-CIM, Article 41 CMR, Article 26 MC.
- 14 Except for the Montreal Convention, which lacks specific rules on the compensatory basis for loss or damage of cargo. Provision 22 of the Montreal Convention touches upon the limits of liability. A comparable provision to the ‘compensation in case of death or injury of passenger’ according to Article 21 Montreal Convention is, however, missing.
- 15 Furthermore, Article 19 (4) CMNI and Article 31 COTIF-CIM.
- 16 Article 4 (5) HVR and Article 19 CMNI, respectively.
- 17 *Taylor & Son v Bowden Transport* (1966) 1 Lloyd’s Rep. 287.
- 18 *Inter alia* visible in Article 23 (4) CRM ‘but no further damages shall be payable’ and Article 25 CMR ‘diminished in value’; Article 32 § 4 COTIF-CIM ‘to the exclusion of all other damages, to the cost of repair’.
- 19 (1854) 9 Exch. 341.
- 20 *Sandeman Coprimar SA v Transitos Y Transportes Integrales S.L and others* [2003] 2 Lloyd’s Rep. 172.
- 21 Spanish: una indemnización equitativa fundada en el principio de restitución; French: indemnisation équitable fondée sur le principe de réparation; German: nach dem Grundsatz des vollen Ausgleichs.
- 22 Article 25 CMR, Article 19 (2) CMNI, Article 32 §1 COTIF-CIM.
- 23 So *inter alia* in Article 23 (4) CMR and in detail Lamont-Black, 2012.
- 24 House of Lords, *The Heron II*, [1969] 1 AC 350.
- 25 *Baron Rodger of Earlsferry, Banque Bruxelles Lambert SA v Eagle Star Insurance Co Ltd.*, (sub nom. *South Australia Asset Management Corp v York Montague Ltd*), [1997] AC 1991.

- 26 (1854) 9 Exch. 341.
- 27 [1961] UKPC 2; [1961] A.C. 388.
- 28 *Inter alia* in *The Arpad* (1934) 50 L.L.Rep. 134 at 189.
- 29 Contrary to Article 4 (6) HVR: Goods of an inflammable, explosive or dangerous nature to the shipment whereof the carrier, master or agent of the carrier has not consented with knowledge of their nature and character, may at any time before discharge be landed at any place, or destroyed or rendered innocuous by the carrier without compensation and the shipper of such goods shall be liable for all damages and expenses directly or indirectly arising out of or resulting from such shipment.
- 30 *Inter alia* in Kings Bench, *The Ardennes*, [1951] 1 KB 55 where loss due to price fluctuations was granted; even *Transfennica v Schenker* 2015 where damage for substitute cargo loss was granted.
- 31 Herber, 2020; Baughen, 2015; Lamont-Black, 2012, also emphasising the lack of clarity in the travaux préparatoires of the HVR; an international reluctance for including consequential damage in the types of damages recoverable by the carrier was also expressed during the negotiations of the Rotterdam Rules, see UN Doc. A/CN.9/552, p. 8 para 26; p. 10 para 36 emphasises that only if the parties ‘made clear their intention’ consequential damage shall be recoverable by the carrier.
- 32 LG Hamburg, decision of 18.9.2006 – 415 O 44/04) HmbSeeRRep 2007, 225; appeal rejected.
- 33 Except for the Montreal Convention.
- 34 Article 18 (2) CMR or § 23 (2), Article 30 § 1 CIM 1999, Article 4 § 5b S. 2 HVR, Article 19 CMNI.
- 35 For the normal value the resale price is usually taken as a basis, see *Mayhew Foods Ltd v Overseas Container Ltd* [1984] 1 Lloyd’s Rep 173. This aspect may be relevant for used products. However, the existence of a market is assumed to be more likely.
- 36 Italian landmark case on Article 23 CMR: Civil Cassation section III, 23/01/1985, No 289; French perspective on Article 23 CMR: Cass. Com., 12 March 2013, No 09-12854; to the German commercial law Bahnsen (2018) in D. Rabe & K. Bahnsen (Eds.) *Seehandelsrecht* (5th ed.) Munich: C.H. Beck. § 502 HGB, para. 11. The provisions on carriage of goods by sea are almost equal to the provisions of the HVR; Thume (1995).
- 37 [1978] A. C. 141 = [1977] 3 All E. R. 1048 H. L. Also affirmed by the German literature: Koller (2000) and Jesser-Huß (2020). Article 23 CMR, para 10; Otte (2018) in F. Ferrari, E-M. Kieninger & P. Mankowski (Eds.), *Internationales Vertragsrecht* (3rd ed.). Munich: C.H. Beck. Article 23 CMR, para. 16.
- 38 Hof van Cass. 27 05. 2011 (Hawe Belgium nv/R.J. Reynolds Tobacco International, Security) C090618N-C090620N; Rb. Amsterdam 30.3.1977, S. & S. 1978 No. 36, ECLI:NL:RBAMS:1977:AJ1300, also 502 (4) German Commercial Code (HGB).
- 39 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Recycling_%E2%80%93_secondary_material_price_indicator#Price_and_trade_volumes
- 40 RG, RGZ 98, 150.
- 41 [1991] 1 Lloyd’s Rep 120.
- 42 [1991] 1 Lloyd’s Rep 82.
- 43 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Recycling_%E2%80%93_secondary_material_price_indicator#Price_and_trade_volumes
- 44 Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994.
- 45 The price elements (e.g. royalty payments, free of charge or against reduced costs provided services or goods by the imported to the manufacturer (that is, assists), costs associated with the transportation of the goods) are enumerated exhaustively in the WTO CVA and should be considered for determining the customs value of the imported goods.
- 46 Article 1(1) WTO CVA.
- 47 WCO Advisory opinion 1.1. The concept of ‘sale’ in the Agreement. (Adopted, 2nd Session, 2 October 1981, 27.960). According to the ECJ, ‘sale’ should be interpreted broadly to prioritise the application of the transaction value method, see ECJ 12 December 2013, C-116/12 (*Ioannis Christodoulou v Elliniko Dimosio*), ECLI:EU:C:2013:825, para 45.
- 48 See for example ECJ 25 July 1991, C-299/90 (*Hauptzollamt Karlsruhe v Gebrüder Hepp GmbH & Co. KG.*), ECLI:EU:C:1991:334, para 13.
- 49 The ECJ held that a working or processing contract can also constitute a sale for export, see ECJ 12 December 2013, C-116/12 (*Ioannis Christodoulou v Elliniko Dimosio*), ECLI:EU:C:2013:825, para 60. This is, however, a somewhat controversial judgement and seems to be contradictory to earlier judgements of the ECJ and non-binding instruments of the TCCV, where for the existence of a sale (for export) financial risk over the goods should be transferred from one party to another.
- 50 WCO TCCV Advisory opinion 1.1. The concept of ‘sale’ in the Agreement. (Adopted, 2nd Session, 2 October 1981, 27.960).

- 51 WCO TCCV Commentary 22.1. Meaning of the expression ‘sold for export to the country of importation’ in a series of sales. (Adopted, 24th Session, 26 April 2007, VT0564).
- 52 See Article 128 Implementing Act to the Union Customs Code and Guidance on Customs Valuation, TAXUD/2623395rev2/2020, CEG-VAL/20/8/3.4.
- 53 The US applies the first-sale principle, while for example Canada applies the ‘purchaser in Canada’ approach, see Schippers (2018).
- 54 WCO TCCV Explanatory Note 3.1. Goods not in accordance with contract. (Adopted, 3rd Session, 23 March 1982, 28.560).
- 55 See for example US CBP HQ ruling 545192 dated 4 January 1995.
- 56 ECJ 19 March 2009, C-256/07 (Mitsui & Co. Deutschland GmbH), ECLI:EU:C:2009:167.
- 57 The conditions in the EU are laid down in Article 132, Implementing Act of the Union Customs Code.
- 58 ECJ 12 October 2017, C-661/15 (X BV), ECLI:EU:C:2017:753, para 40.
- 59 ECJ 12 October 2017, C-661/15 (X BV), ECLI:EU:C:2017:753, para 38.
- 60 Article 7(2) WTO CVA provides for an exhaustive list of values that cannot be used as customs value.
- 61 The returned goods have been sold for export to the country from which the goods are returned and not to the country the goods are returned to. Therefore, the transaction value method cannot be used. See also ECJ 9 November 2017, C-46/16 (LS Customs), ECLI:EU:C:2017:839, para. 25-37.
- 62 Commentary No. 15 of the Compendium on Customs Valuation – edition 2021.
- 63 Articles 85 and 215 UCC.
- 64 [1974] 1 Lloyd’s L. Rep. 203 = ETR 1974, 737 (746) – *William Tatton and Co. Ltd./Ferrymasters Ltd.* (J. Browne); OLG München 5.7.1989, Transportrecht 1990, 16 (17) = Neue Juristische Wochenschau – Rechtsprechungs-Report 1989, 1434 (1435).
- 65 Budgen & Lamont-Black (2013); also under German Law § 493 I HGB; for the Dutch perspective: [The Engelina] Rb. Amsterdam 1.10.1915, NJ 1915, 1230 et seq.; also based on Article 8:441-2 BW.
- 66 Even standard clauses like UCP 500 integrate the freight prepaid clause in Article 33 (b).
- 67 BGH Transportrecht 1987, 439 (441), OLG Hamburg, decision of 30.8.1990 (6 U 11/90), Versicherungsrecht 1991, 604.
- 68 Brett, J in *Allison v Bristol Marine* (1976) 1 App Ca 209 at 253.
- 69 House of Lords in *Allison v Bristol Marine Insurance* (1876) 1 App. Cas 209.
- 70 WCO TCCV Commentary No. 15 of the Compendium on Customs Valuation – edition 2021 and point VII of WCO TCCV Advisory Opinion 1.1 The concept of ‘sale’ in the Agreement issued by the WCO Technical Committee on Customs Valuation.
- 71 *Silber v. Islander Trucking* [1985] 2 Lloyd’s Rep. 243; *Michael Galley Footwear Ltd. v. Iaboni* [1985] 2 Lloyd’s Rep. 251.
- 72 This is especially the case for basic materials. These kinds of resources may in almost every case have a certain energy value, see Dolde & Vetter (1997).
- 73 Chapter 4, Articles 22-25 of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.
- 74 Article 22 (1) WSR.
- 75 Article 23 (1) WSR.
- 76 *Inter alia Quantum v Plane Trucking*, [2002] EWCA Civ 350 (UK); OGH Vienna, 30.10.2016, Recht der Transportwirtschaft 2017, 281 (AT), Article 19 United Nations Convention on International Multimodal Transport of Goods 1980 (not in force).
- 77 That is, section 452 German Commercial Code: ‚Wird die Beförderung des Gutes auf Grund eines einheitlichen Frachtvertrags mit verschiedenartigen Beförderungsmitteln durchgeführt und wären, wenn über jeden Teil der Beförderung mit jeweils einem Beförderungsmittel (Teilstrecke) zwischen den Vertragsparteien ein gesonderter Vertrag abgeschlossen worden wäre, mindestens zwei dieser Verträge verschiedenen Rechtsvorschriften unterworfen, so sind auf den Vertrag die Vorschriften des Ersten Unterabschnitts anzuwenden, soweit die folgenden besonderen Vorschriften oder anzuwendende internationale Übereinkommen nichts anderes bestimmen.‘
- 78 Article 3(8) HVR, Article 25 (1) CMNI, Article 5 COTIF-CIM Article 41 CMR, Article 26 MC.
- 79 Article 41 CMR.
- 80 Article 22 (3) MC, Article 26 CMR.
- 81 Article VII HVR: ‘any agreement, stipulation, condition, reservation or exemption as to the responsibility and liability of the carrier or the ship for the loss or damage to, or in connection with, the custody and care and handling of goods prior to the loading on, and subsequent to the discharge from, the ship on which the goods are carried by sea.’
- 82 Article 24 CMR; Article 34 CIM; Article 22 (3) MC; Article IV (5)(a), (g) HVR; Article 20 (4) CMNI.

- 83 Article 23 (3) CMR; Article 30 (2) CIM; Article 22 (3) MC; Article IV (5)(a), (g) HVR; Article 20 (1) CMNI.
84 A weekly chosen exchange rate: <https://www.imf.org/en/Topics/special-drawing-right>
85 <https://www.iata.org/en/programs/environment/ace>
86 Based on Regulation (EC) No 300/2008 of the European Parliament and of the Council of 11 March 2008 on common rules in the field of civil aviation security and repealing Regulation (EC) No 2320/2002.

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