

# Combinations of goods and services and their treatment under World Trade Organization (WTO) law

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## Abstract

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Recent years have seen an increase in goods-related services. Such services range from conventional maintenance contracts sold with goods, to database and data processing services as necessary parts of the Internet of Things. Indeed, the Internet of Things has increasingly blurred the distinction between goods and services insofar as the latter enable essential functions of the goods. Services such as production-related research and development (R&D) are also making an increasingly significant contribution to the final value of goods. On the other hand, the World Trade Organization (WTO) regulates the cross-border trade in goods and services separately in the General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS). Therefore, it is legitimate to ask if this approach is now outdated and a new mode of trade should be created. This paper provides some thoughts on these questions and is based on the author's dissertation which comprehensively deals with this topic.<sup>1</sup>

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## 1. Combinations of goods and services

Before examining if GATT's approach to goods and services is still appropriate, it is necessary to categorise the way goods and services interrelate. The first combination of goods and services in the broadest sense are 'embodied services'. Such services form part of the production process (e.g. research and development (R&D), design or even transportation) and increasingly contribute to the final value of a product.<sup>2</sup> However, embodied services also include services where the goods are merely a carrier medium (e.g. an architect's blueprint). In this case, it is impossible to separate the embodied services from the product itself. The second combination of goods and services is product-related services. Examples are services which facilitate the sale or use of goods (e.g. financial, consulting and/or maintenance services) and services that modify sold goods by tailoring them to the customer's needs or incorporating them into other goods or services in order to extend their functionality. The Internet of Things provides a good example: integrating conventional goods into a system of data collection and processing endows them with entirely new functions. What all these types of product-related services have in common is that customers obtain ownership of goods and receive and consume a service. Unlike embodied services, goods and services therefore remain separate. The third combination of goods and services are usage/outcome-oriented systems. In these cases, customers do not obtain ownership of goods but simply acquire an option to use the goods or obtain their results. Examples of such usage-/outcome-oriented systems are operator models or services in the so-called 'shared

economy'. The goods are primarily intended to provide a service promised by the supplier (i.e. the possibility to use or obtain the result produced by those goods).

All these different combinations of goods and services can still be described using the traditional terms 'goods' and 'services'. In the case of embodied services, the final product is still a tangible product, regardless of the degree to which the services in the production process account for its value. In the case of product-related services one can even identify the individual goods and services which make up the whole package. This is also true of usage-/outcome-oriented systems where one can also distinguish between the goods and conventional services (usually rental services). However, in this case the payment model may have changed. For example, billing can now be based on the distance travelled or the yield produced by operating the goods.

None of these combinations suggest the conventional categories are no longer adequate or that a completely new category needs to be invented. Nevertheless, it is feasible to ask whether the General Agreement on Tariffs and Trade (GATT) or the General Agreement on Trade in Services (GATS) still do justice to these combinations of goods and services.

## 2. The treatment of embodied services

As far as embodied services are concerned, the products in which the services are embodied are still 'goods' within the meaning of GATT. The main criterion is still whether a product is tangible or not<sup>3</sup> and the increased share of services in the content does not alter this. That said, the question arises whether the services embodied in the goods are traded and, if so, whether there is need for a new mode 5 of trade<sup>4</sup> in embodied services. Since the definition of 'supply of a service' in Art. XXVIII (b) GATS also refers to the sale of a service, one might think that members also wanted to cover the resale of services detached from the service provider. In this case, one could argue that services embodied in a product are traded pursuant to Art. I (2) (a) GATS because they are resold as part of the products. However, the members did not want to include the resale of services by referring to the sale of services in the definition of 'supply of a service'. Rather, the definition was designed to cover the entire marketing process of a service from the actual supply, sale and final delivery (Wolfrum, 2008; GATT Group of Negotiations on Services, 1991). Accordingly, sale does not extend to 'resale'. This is also reflected by the fact that the GATS (unlike the GATT) provides special protection for the service provider (see Art. II, XVII GATS), since the members assumed that it would not be enough to simply protect the service transaction itself (Wolfrum, 2008). Accordingly, the provision of services is closely linked to the service provider, meaning that it is generally not possible to resell a service which has already been supplied. Nevertheless, there is no need to create a new mode of trade since the embodied services are already covered by the rules protecting the trade in goods in the GATT. Before services enter the production process, their actual supply may, of course, be subject to the rules of the GATS if cross-border trade takes place. After the initial supply of these services there is no subsequent supply as part of the sale of the goods in which they are embodied. In other words, the customer does not pay for the embodied services a second time nor does the service provider supply them a second time. Accordingly, there are no legal loopholes in the scope of GATT and GATS with respect to embodied services.

The only difference is where the service is provided to the consumer via goods (i.e. where goods function as a carrier medium). Such cases constitute an initial supply rather than a resale of a service. However, as seen in the case *Canada – Periodicals* (1997), the World Trade Organization (WTO) Appellate Body has held that the GATT also applies to such cases, provided the goods are subject to the measures of a WTO member. Since the GATT and GATS are mutually exclusive (i.e. it is impossible for one transaction to represent trade in goods and services simultaneously), the latter would cease to apply. Moreover, the GATT offers sufficient protection for such transactions, thereby rendering the GATS superfluous.

## 2.1. Embodied services and customs valuation

Since the services embodied in the goods contribute to their final value, they serve to increase customs duties, which are calculated on an *ad valorem* basis. However, if the embodied services are sold in isolation, no customs duties will be levied because services are not subject to customs clearance. One could therefore argue that the value of the services embodied in goods should be deductible (Antimiani & Cernat, 2017). However, this would automatically complicate the customs valuation, since the transaction value (which is the preferred calculation method precisely because it is relatively straightforward)<sup>5</sup> would no longer be sufficient. Instead, the value of goods would have to be broken down into its individual components. This would contradict the essential objective of the GATT, that is trade liberalisation. Therefore the preferred method of trade liberalisation is the reduction of tariffs and not the artificial reduction of the customs value. To support the services industry, it is preferable to lower tariffs for goods with a high services content, especially in respect of final products which still have relatively high customs rates. Moreover, according to the economic theory of Customs (which also underlies the GATT), tariffs serve to equalise price differences due to production and labour costs when goods enter economic circulation (Witte, 2018). Thus, if embodied services were deductible, a significant part would be eliminated in order to legitimise the imposition of tariffs. Finally, Art. 8.1 (b) (iv) of the Customs Valuation Agreement (CVA) already mentions that some services form part of the customs value, which provides another argument against deducting them from the customs value. As a rule, therefore, the value of embodied services should not be generally deductible from the customs value of the goods.

## 2.2 Embodied services and rules of origin

As embodied services have an increasing impact on the value of goods and form an important part of their production process, it is also worth considering the treatment of services in the context of rules of origin (RoO). A distinction is made between preferential and non-preferential origin. While members enjoy almost unfettered freedom to agree preferential RoO (Inama, 2009), they are bound by the Agreement on Rules of Origin (ARO) concerning non-preferential origin.

Preferential RoO are used in trade agreements to determine the conditions certain goods must fulfil to benefit from preferential treatment. They also serve to implement economic policies by promoting the supply industries of the contracting states (Hirsch, 2011). By contrast, non-preferential RoO serve to implement other objectives of trade policy. Whereas all goods must have a non-preferential origin, they do not need to have a preferential origin.

Although their objectives differ, the RoO used to determine origin are generally based on the same criteria. In particular, the *last substantial transformation* rule is usually applied because it reflects global supply chains and the division of labour. The three main criteria for substantial transformation are *change in tariff classification*, *specified processing* and *value-added*.

The first two criteria require specific changes to the classification of the initial product or certain steps in the production process respectively: embodied services are generally not taken into consideration when determining origin. These criteria are relatively easy to apply (Inama, 2009) and are likely to prevail in the majority of cases (especially the *change in tariff classification*) (Felderhoff, 2018). By contrast, the *value-added criterion* requires a certain amount of value to be added to the goods in a certain country before they can be considered originating products. This is no easy task and various methods have been developed for this purpose. Thus, origin may either require that the share of foreign materials does not exceed a certain percentage of the total value of the goods (*import content method*) or that national materials and operations performed domestically must contribute a certain percentage to the value-added of the goods. In the latter method, the national value-added share is determined by either deducting all foreign materials used (*build-down method*) or by adding all materials of national

origin used together with all domestic production costs (*build-up method*). Of these methods, those based on the foreign content of the goods appear preferable. This is because it is easier to determine the value of foreign materials than it is the value of all national working processes and general costs and then attribute them to the manufactured goods in question (Hoekman & Inama, 2019).

Although the *value-added criterion* is the one most closely aligned with actual economic conditions, it is only applied in a small number of cases or in combination with the *change in tariff classification criterion* (Felderhoff, 2018). The disadvantages of this calculation method lie in its potentially large number of reference variables, the problems caused by fluctuating cost elements and exchange rates and its potential to distort trade.

Of these rules of origin, only the *build-up method* takes embodied services into account directly. However, examples such as the ASEAN Trade in Goods Agreement (ATIGA) show that embodied services alone cannot establish origin if the goods have not been worked or processed (see Art. 28 (1) (a) ATIGA). Therefore, even if embodied services originating in a certain country largely account for the final value, origin will only be conferred if the goods have been worked or processed in that country. By contrast, the *build-down method* or *import content method* only considers the value of foreign materials and not services.<sup>6</sup> These methods only take embodied services into account indirectly without differentiating origin. This results in embodied services raising the national value-added (irrespective of their origin) because the total value of the goods also comprises the value of embodied services. However, only the value of foreign materials is considered in such cases. Overall, therefore, embodied services are not well represented in current RoO.

Considering the findings regarding the *build-up method*, the best way of recognising embodied services would be to identify where the goods received their greatest value-added in the entire production process. Even if this new method of determining origin sounds convincing in theory, it may be difficult to implement. As the preference for the *change in tariff classification criterion* illustrates, the method of determining origin must be kept simple. Although it may sound desirable to design RoO in a way that promotes national service industries, it appears that the more complex the rules for determining and proving preferential origin are, the less likely traders will use them.<sup>7</sup> This is especially true of cases where general tariffs are already so low that the costs of determining preferential origin may well exceed the savings made by preferential treatment. Complex RoO therefore have exactly the opposite effect of that originally intended (i.e. to promote the relevant industries of the parties to the preferential agreement). In view of this, such RoO should only be applied as an alternative to conventional rules.

Non-preferential RoO do not suffer from this problem. Art. 3 (b), 9.1 (b) ARO state that current and future RoO are based on where the last substantial transformation took place. According to the new method suggested above, the determination of origin would instead be based on where substantial transformation (in the broadest sense) took place in general rather than where such transformation last took place. However, apart from legal arguments, it should be remembered that all goods must have a non-preferential origin. Therefore, the RoO must be relatively easy to apply and verify.

Incorporating the entire production process (including all embodied services from R&D to transportation), into the determination of origin does not meet these requirements. Therefore, although it may initially appear desirable to develop a new method of calculation that also considers the origin of embodied services, such a rule would not be able to achieve the goals pursued in practice.

### 3. Treatment of product-related services

Product-related services are divided into those that modify functionality (*modifying services*) and those that facilitate sale or use (*facilitative services*).

*Modifying services* can be carried out directly. As such, they are like *manufacturing services* insofar as the only result of the service is a product regulated by GATT. It is therefore disputed whether *manufacturing services* represent actual services.<sup>8</sup> On the one hand, they are distinguishable from the final product itself; they are intangible (as with many other services) and *services incidental to manufacturing* are listed in the Services Sectoral Classification List (SSCL). On the other hand, since the supply of a service also refers to its sale and delivery (*de facto* the final product) in accordance with Art. XXVIII (b) GATS, it may be difficult to determine whether the GATT or GATS applies. Accordingly, the result of the service sold and delivered would be a product falling within the scope of GATT.

However, since GATS only covers *trade* in services, the risk of competing norms will not arise if there is no trade in such an activity (even if it is a service). In cases where *modifying services* are carried out on the product prior to its importation, a mode 2 trade in service (Art. I:2 (b) GATS) arguably takes place because the supply of a service also includes its sale (Art. XXVIII (b) GATS). Therefore, if a service were sold via internet or phone in one country to a service consumer of another WTO member without there being any cross-border movement of the service consumer or one of its goods, the result would arguably be a trade in a service. Under the GATS modes of supply, however, the actual provision of services should determine the classification of individual transactions. Otherwise, there would be a risk of classification problems arising if, for example the mode of supply applicable to the conclusion of a service contract were different to that applicable to the actual provision of the service. In addition, for modes 2 to 4 (Art. I:2 (b)–(d) GATS), the international link is established by a cross-border movement of the service provider or user. Thus, mode 2 also requires the service user themselves (or at least an object belonging to them) to move to the service provider.<sup>9</sup> Therefore there is no trade in service within the meaning of the GATS where a service is carried out on sold goods prior to their importation because neither the consumer nor its goods crosses a border to the service provider. In this case, difficulties of scope will not arise. *Modifying services* performed on the goods after importation may be considered a mode 3 or 4 trade in service if such activities are seen as services. In such cases, it is possible to identify the point in time that the trade in goods and trade in services took place and the service does not result in the product (which is still unprocessed) actually crossing the border. Accordingly, no difficulties of scope would arise in these cases either. The GATT itself does not provide sufficient protection for such activities since its main focus is on the trade of goods rather than supporting activities. Therefore, if such activities modifying goods are not generally regarded as services, they will not be protected either by GATT or GATS. However, this would contradict the comprehensive approach of GATT and GATS and, for this reason alone, *modifying services* performed on the goods themselves should be deemed services potentially falling under GATS.

The SSCL also provides typical examples of *modifying services* which relate to goods indirectly (e.g. training or consulting and planning services). These are easily distinguishable from the goods and are therefore services. The same may be true of *facilitative services* such as financial services, insurance services, or installation and assembly work. Although some of these services are mentioned in the GATT and its related agreements on trade in services (e.g. Art. III GATT, Annex 1 CVA), they do not fall within its scope. However, such complementary services should not be excluded from the GATS, which covers all services (Art. I:3 (b) GATS).

As a result, if services are sold with goods, measures relating to one subject of trade may sometimes affect other subjects of trade. GATT and GATS can then be affected simultaneously.

### 3.1. Product-related services and customs valuation

In respect of customs valuation according to Art. 1.1 CVA, the transaction value includes only the price actually paid or to be paid for the goods in question. At first glance, product-related services do not appear to form part of the transaction value. However, according to para. 7 of Annex III CVA, the price actually paid or to be paid "...includes all payments actually made or to be made as a condition of sale of the imported goods...". Arguably, this means that all product-related services can be deemed part of the transaction value if they are a condition of sale of the imported goods. However, this is arguably too broad: while "charges for construction, erection, assembly, maintenance or technical assistance, undertaken after importation on imported goods [...]" and "the cost of transport after importation" are expressly excluded from the transaction value if they are distinguishable (para. 3 (a), (b) Note to Article 1 Annex I CVA), other costs for services such as commissions and brokerage, the cost of transport of the imported goods to the port or place of importation or the cost of insurance do form part of the transaction value (Art. 8.1 (a) (i), Art. 8.2 (a), (c) CVA). Therefore, the costs included in customs valuation usually form part of the seller's price calculation and are thus part of the goods' value; in addition, they have also contributed to the good's value prior to import. Accordingly, only those services which are a condition of sale should be included in the customs valuation if they usually form part of the retail price of the goods and have an influence on their value prior to importation.

Services expressly excluded from customs valuation may also form part of a condition for sale. There does not appear to be any good reason for excluding them while other services (which are not directly linked to the goods either), are included in the customs valuation simply because they are part of the sale conditions (Vonderbank, 2019). This argument corresponds to the principle of economic Customs, according to which customs duties are intended to regulate prices when foreign goods enter economic circulation. Therefore, changes in the price of a product after it has entered foreign economic circulation should not be considered in respect of customs valuation.

### 3.2. Product-related services and RoO

As far as RoO are concerned, product-related services have almost no effect on the origin of goods. In respect of the *change in tariff classification criterion* and the *specified processing criterion*, one can hardly imagine cases where such services influence origin. The exception would be where the origin is determined by applying the *value-added criterion*, whereby the calculation of value-added is based on customs value of foreign materials used in the production process. Thus, the customs value of foreign materials may also contain the costs for transportation, insurance or related services which form part of the customs value, as stated above.

Including services in the customs value because they have increased the value of the materials themselves corresponds to the principles of the *value-added criterion* to determine origin, since the materials are also included in the manufactured goods with the increased value as a result of the service. Including services mentioned in Art. 8 CVA in the customs value of the materials also corresponds to the aim of the *value-added criterion*, namely to determine origin using the last significant value-added.

The calculation of the price for the manufactured goods usually includes all production-related costs. Therefore, if the costs of the services referred to in Art. 8 CVA were not included in the value of the foreign materials, they would ultimately benefit the national value-added, despite the fact that these services were not provided domestically.

## 4. Treatment of usage-/outcome-oriented systems

Last but not least, there are usage-/outcome-oriented systems. As far as the applicability of GATS is concerned, the services involved in such systems can be found in the SSCL (e.g., *Rental/Leasing Services* or *Services incidental to manufacturing*), which are subject to the rules of GATS in accordance with Art. I:2 GATS. Since the GATT applies irrespective of the reason for cross-border movements,<sup>10</sup> its rules generally apply to the goods in question even though they are not sold. However, one may ask whether only the rules of GATS should apply since the goods are only imported to provide related services, as China similarly argued in *China – Audiovisuals* (2009). In this case, the Appellate Body decided that, irrespective of their later use, the goods are still goods since they are subject to customs procedures on importation. Of course, customs duties may also be collected on importation. Since only the GATT contains rules concerning customs duties and restricts the freedom of WTO members to raise them, it should still apply even if the goods are only imported to provide a related service. This is also supported by the fact that members are obliged under Art. 10 para. 9.1 of the Trade Facilitation Agreement (TFA) to exempt goods in whole or in part from customs duties if they are only temporarily imported for a specific purpose. This obligation appears directly relevant to the case in question. Thus, if a rule that is part of the multilateral agreements governing the international trade in goods applies in a case where goods are only imported temporarily for a certain purpose (e.g. to provide a service), it appears contradictory to exempt those goods from the GATT. Therefore, GATT and GATS may both apply to usage-/outcome-oriented systems where a measure concerning the goods or service element also affects trade with the other part.

As far as customs valuation and RoO are concerned, no peculiarities arise. However, it must be kept in mind that there is no sale for importation in such cases so that the transaction value cannot be used in customs valuation. However, as there are several other subordinate rules for customs valuation in the CVA there is no need to introduce any new rules.

## 5. Treatment of digital products

Concerning the relationship between goods and services and their treatment under WTO law another quite important topic is the classification of so-called ‘digital products’, namely products which used to be traded as tangible goods such as CDs, DVDs and books but are now tradable digitally as data downloads from the internet. WTO members still cannot agree on their classification after more than 20 years of discussion.<sup>11</sup> On the one hand, digital products are (unlike almost all other goods apart from electricity)<sup>12</sup> intangible. On the other hand, they may be, for example, saved on a hard disk and can therefore (unlike many other services) be stored and consumed independently of their production.

GATT and GATS themselves do not define the terms ‘goods’ and ‘services’ either, which can cause problems when new products appear on the market. In addition, only the GATT contains rules on customs duties, whereas customs duties on services are unusual (if not impossible). Levying customs duties on digital products as on conventional goods also appears impractical, since it would require analysing incredible amounts of data in real time. Moreover, it might be easy to circumvent customs duties by storing the data on a national server following importation and reselling it afterwards. In this case, levying customs duties on each new transaction after initial storage on a national server might conflict with national treatment under Art. III:2 GATT.

As far as classification under the Harmonized System (HS) and the SSCL is concerned, neither instrument covers digital products explicitly: the HS only contains the storage media irrespective of its digital content<sup>13</sup> whereas the SSCL only refers to certain services which create the digital product, for example ‘software implementation services’<sup>14</sup> (which also cover software development<sup>15</sup>), or ‘motion picture and video tape production and distribution services’<sup>16</sup> or ‘sound recording.’<sup>17</sup> However, one could argue that selling the digital product includes the sale and delivery of these services and therefore

also the supply of a service pursuant to Art. XXVIII lit. b) GATS (WTO, 2003). Another argument for the classification of digital products is technological neutrality, namely that digital products should not be treated any different from their physical counterparts (Baker et al., 2001). That said, even the GATT differentiates between, for example, cassettes and CDs. Thus, there is no technological neutrality since the same content may be treated differently depending on its physical carrier media.

Since it is not wholly clear whether digital products should be classified as goods or services, the following examines whether the GATT or GATS is better suited to apply the fundamental principles of the WTO to digital products. Concerning principles of non-discrimination and open markets, members have tried to strike a balance between the general interest in trade liberalisation on the one hand and the interest in regulating the access of foreign goods to their national market (which is granted to the members in principle)<sup>18</sup>, on the other. Under GATT this balance is mainly due to its focus on levying customs duties as the preferred method for trade regulation. Thus, many GATT rules are focused on customs duties. Since levying customs duties on digital products is not practicable, this balance will be disturbed if members are not free to make use of other possibilities for trade regulation due to digital products not being considered goods under GATT.<sup>19</sup> By contrast, GATS gives members more freedom in this respect, subject to the commitments in their GATS schedules. Additionally, GATS provides a broader scope for liberalisation since it also covers service suppliers<sup>20</sup> and might therefore be better suited for trade liberalisation in the long term when more commitments will be made. Regarding the principle of sovereignty, a distinction must be drawn between audiovisual digital products (where comprehensive liberalisation is primarily opposed by cultural policy interests) and digital software (where measures primarily reflect security and consumer protection considerations). With regard to audiovisual digital products, the GATT does contain individual culture-specific regulations (e.g. Art. III:10, IV, XX (f) GATT) but these are severely limited in scope. Since the levying of tariffs on digital products does not seem practicable, members have hardly any freedom under the GATT to pursue their cultural policy interests regarding digital products. The GATS offers greater flexibility in this respect – provided that the member has not made any concessions to the contrary. Nevertheless, it should be noted that the GATS has so far not provided for any cultural policy exceptions and that once concessions have been made, they are hardly reversible.<sup>21</sup> Nevertheless, the GATS appears to be more suitable in this respect because of the freedoms to pursue cultural interests that exist in principle. With regard to digital software, a major advantage of the GATT is that, with the Agreement on Technical Barriers to Trade and the Agreement on Subsidies and Countervailing Measures, there are already binding rules for goods which counteract hidden protectionism in the form of security regulations and which reconcile the promotional interest of the members with the interest of the other members in the freest possible market access. In this respect, the GATS contains hardly any regulations so far and the members have only committed themselves to working out a corresponding framework.<sup>22</sup> At the same time, however, it must be considered that the principle of sovereignty allows members to pursue trade policy goals, albeit only under certain conditions. Categorising digital software as goods, however, would largely deprive them of this sovereign right since they would essentially be referred to levying customs duties, which (as already explained) is impractical.

All in all, it would appear better to qualify digital products as services under GATS. The main reason for this is that, on the one hand, there is already a well-established understanding of goods (which would be unduly weakened by categorising digital, intangible products as goods), whereas the concept of services is still very broad and by no means as well-established. Moreover, regarding the (impractical) levying of customs duties on digital products, additional special regulations would have to be agreed under the GATT to do sufficient justice to the essential principles in this respect. This would not, however, be necessary under the GATS.



## 5.1. Digital products and customs valuation

Since digital products (especially software) can, in principle, be traded together with goods in all the constellations described above, reference can generally be made to the preceding statements. However, as far as customs valuation is concerned, some special issues may arise in relation to software. Generally speaking, software may be installed on the goods prior to their importation or installed after importation. If the software is pre-installed, its value must be included in the customs value since the software generally raises the value of the goods by adding functions. However, if the software was provided by the buyer free of charge, special rules apply. In this case, the software is to be classified as an intangible component of the goods within the meaning of Art. 8.1 (b) (i) CVA, since, in contrast to Art. 8.1 (b) (iv) CVA, it is directly included in the goods after installation and does not require any additional transfer. As a result, the exception in Art. 8.1 (b) (iv) CVA, according to which its value is not to be added if it was produced domestically, does not apply to software. The fact that the outward processing procedure is only available for conventional materials<sup>23</sup> provides a potential loophole for software. However, this should be ruled out because there is no apparent reason why software alone should not be treated favourably if it was produced domestically. This could be achieved by making the outward processing available for software (Vonderbank, 2019). This would also comply with the economic concept of Customs since there will be no need to compensate any price differences regarding domestically developed software. Whether the outward processing procedure should also be introduced for services in general has not yet been the subject of discussion and requires further research. If the software is pre-installed at the time of import but requires subsequent activation, any activation costs should only be added to the customs value of the goods if the software must be paid for and activated according to the conditions of the purchase transaction, or if the software is absolutely necessary for the functioning of the goods (Vonderbank, 2019). It is true that, in these cases, the goods still lack the corresponding functions when imported. From an economic point of view, however, the value of the goods has already increased at the time of importation because of the mandatory prompt activation of additional functions without requiring additional substantial steps. If the software is only installed on the goods after importation, the value of the software should not be added to the customs value. This is because there has been no corresponding increase in the value of the goods on importation and additional substantial steps are also required. In addition, the importation of goods and additional related materials must be viewed separately rather than as a single import as regards customs valuation.

## 5.2. Digital products and RoO

Regarding the consequences of the classification of digital products as services for the origin of the goods, it must first be noted that, in contrast to most other embodied services, there are no inconsistencies with the wording of Art. 3 (b), 9.1 (b) ARO, since the uploading of digital products can be assigned to a specific production stage whereby the goods are changed and granted further functions. The uploading can thus be described as working or processing in the broadest sense, which can also be essential depending on the point of view. However, since the recording itself is insignificant compared to the production of the digital product, the origin of the digital product must also be considered when determining the goods' origin. In this respect, the *value-added criterion* is of prime importance (although economies of scale in relation to the digital product must also be considered due to the arbitrary possibilities of duplication), as well as the *specified processing criterion* (which must be limited to cover only the essential recording processes for the finished product). However, potential difficulties in determining both the origin of the digital product and its value in the goods made from it mean that there will always have to be an alternative rule for determining origin.

## 6. Relationship between GATT and GATS

In cases where a measure affects both trade in goods and trade in services (e.g. product-related services and usage-/outcome-oriented systems), the question arises whether the GATT or the GATS or both apply. In *EC – Bananas III* (1997), the Appellate Body held that ‘measures that involve a service relating to a particular good or a service supplied in conjunction with a particular good [...] fall within the scope of both the GATT 1994 and the GATS’. This means that both agreements apply to measures falling within their scope. In this context, ‘affecting’ is interpreted broadly so that both agreements can apply even if the effects are only minor or indirect.<sup>24</sup> This may give rise to conflicts considering the differences between the GATT and GATS. For example, where a certain measure is forbidden under GATT but the member has made no corresponding specific commitments in the relevant service sector or where a certain measure is forbidden by one agreement but covered by an exception in the other.<sup>25</sup>

To solve such conflicts, international law provides for several conflict rules. However, the *lex superior* and the *lex posterior* principle do not provide any assistance in such cases because GATT and GATS are of equal standing and the GATT 1994 and the GATS were agreed at the same time. Moreover, the *lex specialis* principle is unsuited to solving such conflicts<sup>26</sup> since it does not consider the broad application of both agreements. Sometimes, it can also be difficult to identify the purpose of a measure. Moreover, since the GATT and GATS are not mutually complementary (i.e. in the sense that one agreement establishes a basic rule which is further defined in the other agreement by additional conditions or consequences), the more specific rule has to be determined based on a subjective evaluation of the measure and its purpose, thereby creating additional uncertainties. However, adopting a more restrictive interpretation of the term ‘affecting’ is not the answer<sup>27</sup> because it would contradict settled case law and unnecessarily restrict the general application of the agreements.

However, such conflicts can be solved by interpretation. There are two types of potential conflict: the first is where a measure is prohibited under the GATT but no corresponding commitments have been made under GATS. In this case, it is important to remember that the commitments have formed part of the negotiations. Accordingly, if one member has not made any commitments in a particular service sector and the other members accept this, the sovereignty of one member has effectively been prioritised over the general interest in trade liberalisation to the extent set out in its list. It follows that the members must also accept the inevitable trade disruptions that result therefrom (Vranes, 2009). Concerning the conflicts mentioned above, this means that members should not have the right to complain that a measure of another member violates a GATT prohibition under the following conditions: 1) the member in question must not have made any or only limited commitments in its GATS schedule, 2) adverse effects on trade in goods are to be expected in this services sector, 3) the disputed measure serves to regulate the services sector and 4) the member could not have pursued its rights under the GATT in any other way without or with less adverse effects on the rights of other members under the GATT. Otherwise, members who have accepted the other member’s lack of commitments would be acting inconsistently if they attack this acceptance again because of an adverse effect on trade in goods via the GATT that necessarily results from the missing or limited commitment. A similar solution is proposed for the second type of conflicts resulting from the different exceptions in the GATT and GATS. In these cases, the exception should also include violations of obligations under the other agreement<sup>28</sup> if it is not possible to protect the interest covered by the exception in any other way. After all, the exemptions are based on the notion that individual interests can take precedence over the goal of the greatest possible trade liberalisation. However, limiting the exemptions to one agreement would imply that the other agreement attached a greater importance to trade liberalisation, thereby contradicting the equal importance that the GATT and GATS attach to their subjects. However, the differences in the rules of the two agreements simply reflect the peculiarities of their respective

trade subjects rather than differing priorities. This approach makes it possible to resolve conflicts between the two agreements, although increasing commitments made under the GATS is likely to reduce the potential for conflict in the future.

## 7. Conclusion

Overall, the GATT and GATS still regulate the relationship between goods and services effectively. As far as embodied services are concerned, there is no need for a new mode of trade since they are already sufficiently regulated by the GATT when they are traded as part of goods. Concerning digital products, their classification requires greater clarification and they should also benefit from the outward processing procedure. This could also be an option for services in general, although such a proposal requires further research. The different treatment of trade in goods and trade in services is not problematic since it is possible to solve any conflicts which arise. However, it remains to be seen whether the members will solve such conflicts themselves by means of formal rules or leave this task to the Appellate Body.

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## Notes

- 1 Verbindungen aus Waren und Dienstleistungen im Recht der WTO unter besonderer Berücksichtigung zollwert- und ursprungsrechtlicher Fragen [Connections of goods and services in WTO law with special consideration of customs valuation and origin law issues], published in Mendel-Verlag/EFA-Schriftenreihe (Vol. 69) 2022.
- 2 See National Board of Trade Sweden (2016), (pp. 14–16).
- 3 See for example *Canada - Periodicals* (1997), (p. 17); *China - Audiovisuals*(2009) (para. 379).
- 4 The term ‘mode 5 Services’ was first used by Lucian Cernat and means those services that are embodied in a good, that is, which are an inseparable part of the production process of a manufacturing good (Cernat & Kutlina-Dimitrova, 2014).
- 5 See Art. 1.1 Agreement on Implementation of Article VII of the GATT 1994 (CVA).
- 6 See, for example, Art. 4.5 United States-Mexico-Canada Agreement (USMCA), Art. 29 (1) lit. b) ATIGA, Note 4.2 Annex 3-A to Japan-EU Free Trade Agreement (JEFTA).
- 7 Cf. Inama (2009), (p. 360)
- 8 See only: WTO Committee on Specific Commitments (2001).
- 9 See: WTO Council for Trade in Services (2001).
- 10 This is reflected by the use of the terms “importation” and “exportation” in i.a. Art. I:1 lit. b), Art. III:1, Art. XI:1 GATT. These go beyond the understanding of simple “trade” meaning the exchange of goods or services for consideration.
- 11 Members first agreed on establishing a respective work programme in 1998, (Geneva Ministerial Conference, 1998).
- 12 Electrical energy is listed as an optional heading in the Harmonised System (HS) under Heading 2716.00.
- 13 See for example Books (HS 4901.10, 4901.99), CDs and DVDs (HS 8523.49), Audio- and Video-Tapes (HS 8523.29).
- 14 See 1. B. b. SSCL.
- 15 See No. 842 in the UN Provisional central product classification 1991: “All services involving consultancy services on, development and implementation of software”.
- 16 See 2. D. a. SSCL.
- 17 See 2. D. e. SSCL.
- 18 This is reflected as far as goods are concerned for example by the fact that members are still allowed to levy customs duties and as for services, that members are free to make specific commitments for individual service sectors as far as market access (Art. XVI GATS) and national treatment (Art. XVII GATS) are concerned.
- 19 See Art. XI GATT.
- 20 See Art. XVI:1, Art. XVII:1 GATS.
- 21 Cf. Art. XXI:2 lit. a) GATS.
- 22 Art. VI:4, Art. XV:1 GATS.
- 23 See Art. 10 para. 9.2 Trade Facilitation Agreement.
- 24 see only: *EC - Bananas III* (1997) (p. 220).
- 25 similar: Vranes (2009) (p. 234).
- 26 See for example Chase (2012) (p. 809). Similar: Peng (2020) (p. 715).
- 27 However, this solution is proposed by: Vranes (2009) (pp. 229–230).
- 28 However, the *Panel* decided, that exceptions should generally only be applicable for the respective agreement: *China – Raw Materials* (2011)(para. 7.153). Confirmed by: *China – Raw Materials* (2012) (p. 304).

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