THE METHODOLOGIES OF DRAFTING THE AD-VALOREM PERCENTAGE CRITERION

Existing practices in African RECs and way forward in AfCFTA

Note drafted by the Division for Africa, Least Developed Countries and Special Programmes of the United Nations Conference on Trade and Development (UNCTAD) in preparation of the AfCFTA 7th Technical Working Group Meeting on Rules of Origin

Foreword

This note has been drafted on the basis of the documents like Manuals of rules of origin of the AU RECs and legal texts provided by the African Union as well as other materials available on internet. To the extent possible the legal text have been consulted in the original language. The authors would be grateful to the readers and AU members states for their comments, suggestions and corrections to improve the quality and accuracy of this note for the benefit of the AfCFTA negotiation process.

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Acronyms and Abbreviations

ARO	Agreement on Rules of Origin
AV	Adjusted value
CAFTA	Central America Free Trade Agreement
CIF	Cost, Insurance and Freight
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EU	European Union
MAR	Market Access Regulation
NAFTA	North American Free Trade Agreement
PSRO	Product Specific Rules of Origin
REC	Regional Economic Community
RoO	Rules of Origin
RVC	Regional Value Content
SADC	Southern African Development Community
TFTA	Tripartite Free Trade Area
TPP	Trans-Pacific Partnership
UMA	Union of Maghreb Arab
US	United States
VA	Value Added
VNOM	Value of Non-originating Material
VOM	Value of Originating Materials
WCO	World Customs Organization
WTO	World Trade Organization

Definitions

Ex Factory Cost, COMESA definition: Ex-factory cost means the value of the total inputs required to produce a given product.

Ex Factory Price (US definition): price at the factory, and does not include any other charges, such as delivery or subsequent taxes

Ex Works Price (EU definition): price paid for the product ex works to the manufacturer whose undertaking the last working or processing is carried out, provided the price includes the value of all the materials used, minus any internal taxes paid which are, or may be, repaid when the product obtained is exported[1]

FOB (Free On Board) Japan definition: free on board price of the product paid or payable to the seller regardless of the mode of shipment, provided that the price includes the value of all the materials used and all other costs incurred in the production of a product and its transportation to the exportation port in the Party, minus any internal taxes which are, or may be, repaid when the product obtained is exported[2]

Customs value (EU): the value as determined in accordance with the Agreement on implementation of Article VII of the General Agreement on Tariffs and Trade (GATT) of 1994 (WTO Agreement on customs valuation)[3]

[1] See EU/EPAWA/Annex A/en 5 for more details. Extracted from Article 1, (f) of the EPA between EU and West Africa. http://trade.ec.europa.eu/doclib/docs/2015/october/tradoc_153868.pdf

[2] Extracted from Section A, Article X01 of EU-Japan EPA: http://trade.ec.europa.eu/doclib/docs/2017/december/tradoc_156425.%20011217%20%20(agreed)%20Chapter%20on%20RoO%20FULL%20TEXT%20except%20ANNEX%20II_A3.pdf.

[3] See EU/EPAWA/Annex A/en 5 for more details. Extracted from Article 1, (e) of the EPA between EU and West Africa.

1. The Multilateral disciplines contained in Kyoto Convention of 1974 and 2000

The different methodologies in calculating the ad valorem percentage criterion could be summarized using the examples contained in the Kyoto conventions of 1974 and 2000 as reported below:

Box 1 –Excerpt of Kyoto Convention 1974: Ad valorem percentage rule

To determine origin by this method, one must consider the extent of the manufacturing or processing undergone in a country, by reference to the value thereby added to the goods. When this added value equals or exceeds a specified percentage, the goods acquire origin in the country where the manufacturing or processing was carried out.

The value added may also be calculated by reference to the materials or components of foreign or undetermined origin used in manufacturing or producing the goods. The goods retain origin in a specific country only if the materials or components do not exceed a specified percentage of the value of the finished product. In practice, therefore, this method involves comparison of the value of the materials imported or of undetermined origin with the value of the finished product.

The value of constituents imported or of undetermined origin is generally established from the import value or the purchase price. The value of the goods as exported is normally calculated using the cost of manufacture, the ex-works price, or the price at exportation.

This method may be applied either in combination with the two other methods, by means of the lists of exceptions referred to in Section A or the general lists referred to in Section B, or by a general rule prescribing a uniform percentage, without reference to a list of individual products.[4]

Advantages

- The main advantages of this method are its precision and simplicity.
- The value of constituent materials imported or of undetermined origin can be established from available commercial records or documents.
- Where the value of the exported goods is based on the ex-works price or the price at exportation, as a rule, both prices are readily ascertained and can be supported by commercial invoices and the commercial records of the traders concerned.

Disadvantages

- Difficulties are likely to arise especially in borderline cases in which a slight difference above or below the prescribed percentage causes a product to meet, or fail to meet, the origin requirements.
- Similarly, the origin attributed depends largely on the fluctuating world market prices for raw materials and also on currency fluctuations. These fluctuations may at times be so marked that the application of rules of origin formulated on this basis is appreciably distorted.
- Another major disadvantage is that such elements as cost of manufacture or total cost of products used, which may be taken as the basis for calculating value added, are often difficult to establish and may well have a different makeup and interpretation in the country of exportation and the country of importation. Disputes may arise as to whether certain factors, particularly overheads, are to be allocated to cost of manufacture or, for example, to selling, distribution, or other costs.

[4] In the Kyoto Convention 1974, section A refers to *Change of Tariff Heading*, and Section B, to the *Lists of Manufacturing or Processing Operations*.

Box 2 – Excerpt from Kyoto Convention 2000 ad valorem rule: Recommended Practice

Where the substantial transformation criterion is expressed in terms of the ad valorem percentage rule, the values to be taken into consideration should be:

- *for the materials imported, the dutiable value at importation or, in the case of materials of undetermined origin, the first ascertainable price paid for them in the territory of the country in which manufacture took place; and*
- *for the goods produced, either the ex-works price or the price at exportation, according to the provisions of national legislation.*

Although the above guidelines of the WCO Kyoto conventions of 1974 and 2000 have been useful it has to be noted that international trade, the practice of drafting rules of origin, and the ad valorem percentage criterion have considerably evolved. The Conventions are now respectively 44 and 18 years old.

A careful reading and comparison of the above-mentioned guidelines of the Kyoto conventions on RoO shows that there was no order of preference in defining substantial transformation[5] among the three criteria namely 1) change of tariff classification (CTC); 2) ad valorem percentage criterion, and 3) specific working or processing criteria[6]

In a rather drastic change, the Agreement on Rules of Origin (ARO) containing a built-in agenda to negotiate the harmonized non-preferential rules of origin clearly stipulated a preference on how "substantial transformation" should be defined.

The ARO mandated the Technical Committee established at the World Customs Organization (WCO) to draft such harmonized non-preferential rules of origin and elaborate the criterion of substantial transformation **primarily upon the use of a change in tariff classification (i.e., change in tariff subheading or heading)**.

Article 9, paragraph 2 (iii) of the ARO, provides for the Technical Committee to consider and draft rules of origin recurring to other criteria than the CTC:

"*When, upon completion of the work under subparagraph (ii) (i.e. the work based on the change of tariff heading criterion) for each product sector or individual product category where the exclusive use of the HS nomenclature does not allow for the expression of substantial transformation. The Technical Committee:*

— shall consider and elaborate upon, on the basis of the criterion of substantial transformation, the use, in a supplementary or exclusive manner, of other requirements, including ad valorem percentages and/or manufacturing or processing operations, when developing rules of origin for particular products or a product sector;

It follows that the harmonized non-preferential rules of origin have been negotiated using the CTC criteria to define substantial transformation as a primary method to define substantial transformation. The ARO provided that only after it was technically not possible to determine

[5] It has to be noted that the Kyoto convention of 2000 does not mention specific working or processing as methodology for defining substantial transformation

[6] See full text of respective conventions relating to RoO at http://www.unece.org/fileadmin/DAM/cefact/recommendations/kyoto/ky-d1-e0.htm (Kyoto Convention 1974) and http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_conv/kyoto_new/spank.aspx (Kyoto Convention 2000)

substantial transformation using the CTC method, supplementary criteria such as ad valorem percentage criterion and or Manufacturing or processing operations could be considered.

This precise sequencing on the criteria to define substantial transformation to be used to develop harmonized rules of origin as contained in the ARO has informed all the negotiating processes of the work of the Technical committee on rules of origin established at WCO since its inception

Most importantly the choice of drafting PSROs in the WTO harmonization work program using CTC criterion rather than Ad valorem percentage criterion or specific processes or manufacturing operation has largely influenced the drafting of rules of origin in the preferential rules of origin as further discussed below in section 2.

Ultimately the lessons learned from the Kyoto conventions and the ARO are the following:

1) The ad valorem percentage criterion is not the preferred methodology to draft RoO. It is mostly used in conjonction with other methodologies especially in electronics and machinery.
2) When the percentage criteria is used, the preferred method is for the materials imported, the customs value (as numerator) and for the goods produced the ex works price. This could be summarized according to this formula:

$$Max \quad \frac{Value\ of\ material\ imported}{Ex-works\ price} \times 100$$

As further discussed in section 3 this calculation methodology of the *ad valorem* criteria is used in some AU RECs and in the EPAs with European Union

2. Different Calculation methodologies of the Ad valorem percentage criterion

The ad valorem percentage criterion has been used and can be drafted according to different methodologies.

In practice the following factors are needed in order to have an arithmetical outcome according to basic mathematics:

a) a Numerator
b) a Denominator
c) a Level of percentage either as a minimum to be achieved or a maximum not be exceeded[7]

In the sections below the different calculations methodologies of ad valorem percentage are outlined.

2.1. Value added calculation by addition (VA)

$$\frac{\text{VOM} + \text{direct cost of processing}}{\text{Ex} - \text{factory price}} \times 100$$

[7] The issue of the level of percentages falls outside the scope of this note and is therefore not addressed.

Where **VOM** is value of origin originating materials; **Direct of processing** is the sum of the cost of local labour and the direct processing costs[8]; **Ex factory Price** is the price of the product when leaving the factory including profit.

The most classic example of such calculation of[9] Value addition (35 per cent) is the US GSP and AGOA.

2.2. Value added calculation by subtraction of the value of non-originating materials (VAVNOM) and value of originating materials (VOM)

The value-added calculation by subtraction is widely used in US, Japan, South Korea Australia FTAs:

Build-down Method: Based on the Value of Non-Originating Materials (VAVNOM)

$$\frac{Value\ of\ the\ Good - VNOM}{Value\ of\ the\ Good} \times 100$$

Build-up Method: Based on the Value of Originating Materials (VOM)

$$\frac{Value\ of\ Originating\ Materials}{Value\ of\ the\ Good} \times 100$$

Where according to the TPP (Trans-Pacific Partnership):

- **Value of the good** is defined as: the transaction value of the good excluding any costs incurred in the international shipment of the good[10];
- **The value of a material** is defined as generally speaking the transaction value of the material at the time of importation[11].

2.3. Maximum allowance of non-originating materials

This method is among the most straightforward as it is based on a maximum amount of non-originating materials as a percentage of the ex-work price. The EU and ACP countries have used this method of calculation for more than three decades in former Lomé conventions and Cotonou Partnership Agreement and is the current methodology used to draft percentage criterion rules under the EPAs and ACP states. Japan also use a similar criterion in its GSP scheme using the FOB price as a denominator [12].

$$\frac{VNOM}{Ex\ Works\ Price} \times 100$$

[8] See below in section 4.1 for the inherent difficulties in clearly define what are direct processing costs.
[9] See section 4.1 below
[10] see the definition of value of the good in the TPP Agreement
[11] The TPP sets out precise rules on the definition of value of materials under different scenario under article 3.6 to 3.8. See for further details below
[12] It has to be noted that both EU and Japan under the current GSP rules of origin do not use the percentage criterion as an across the board criteria. The Percentage criterion is only used in the context of product specific rules of origin (PSROs) contained in an extensive list detailing the product specific rules of origin. With respect to the ex-works price the FOB price includes inland transport to the port of embarkation.

Where **VNMO** is the customs value of the non-originating materials and **Ex works price** is the price paid for the product ex works to the manufacturer in the European Union or (Partner) where undertaking the last working or processing is carried out, provided the price includes the value of all the materials used, minus any internal taxes paid which are, or may be, repaid when the product obtained is exported

It has to be noted that this method of calculation corresponds to the recommended practice in drafting the ad valorem percentage criterion contained in Kyoto Convention 2000.

2.4. Maximum allowance of non-originating material over the total cost of materials used

Three African RECs namely COMESA and ECCAS are using, as alternative to other origin criteria, a "sui generis" methodology for the calculation of the ad valorem criteria[13][14] as follows:

$$\frac{Value\ of\ non\ originating\ material}{Total\ cost\ of\ material\ used\ in\ the\ production\ of\ the\ good} \times 100$$

It has to noted that the use of such criteria is rather unique as it is using as denominator the total cost of material used in the production of the good excluding any cost of labour and local content in terms of processing costs. As such this calculation is extremely restrictive since it requires a minimum value of originating materials over the total value of the materials used in the production of the good .i.e. an iPhone or iPad assembled in the AfCFTA would not be able to comply since the majority of materials used in the production of these products would not be originating even if the process of assembling an iPhone/iPad from non originating material may be undoubtedly a substantial transformation.

[13] Under section 2.5.1 of the SADC manual on rules of origin this methodology is referred to as "material content test"
[14] Under Rule 2(1)(b)(i) of the COMESA Protocol on rules of origin this methodology is referred to as "material content criterion".

3. Ad valorem percentage rule methodologies used by AU Members states

3.1. Percentage calculation methodology used in AU RECs in intra-regional trade

Table 1 below summarizes the different methodologies used by African RECs that are using the ad valorem percentage criterion as general rule applicable to all products (i.e. ECOWAS) or in combination with other criteria (i.e. COMESA) for all products or in all products and in product specific rules of origin (PSROs) i.e. (SADC).

It clearly emerges from the table that most of African RECs namely EAC, SADC, COMESA 2, ECOWAS are utilizing a calculation methodology based on value of materials as outlined in section 2.2 or 2.3.

In some cases, the wording of the RoO contained in COMESA, ECOWAS, SADC refers to "value added" However a closer look to the legal texts in conjunction with the manuals on RoO [15] reveals that the actual calculation methodology is a value-added calculation methodology by subtracting the value of non-originating materials. This methodolgy of value of materials based on transactional value is the most commonly used and is the result of the evolution of the Ad valorem percentage criterion. This is the same calculation made on the basis of value of materials as outlined in section 4.1 below.

	VAVNOM Build-down Method	**Value Added Calculation by addition (VA)**
(a) Non-Originating Materials	40 USD	40 USD
(b) Originating Material	10 USD	10 USD
(c) Cost of processing and manufacturing	50 USD	50 USD
(d) Ex-Works Cost	92 USD	92 USD
(e) Profit	8 USD	8 USD
(f) Ex-Works Price	100 USD	100 USD
Calculation	$\frac{f-a}{f} = \frac{60}{100} \times 100\% = 60\%$ $\frac{Value\ of\ the\ Good - VNOM}{Value\ of\ the\ Good} \times 100$	$\frac{b+c}{f} = \frac{60}{100} \times 100\% = 60\%$ $\frac{VOM\ +\ direct\ cost\ of\ processing}{Ex-factory\ price} \times 100$

[15] See for instance the COMESA manual on rules of origin page 128 where the methodology for the calculation of value added is made by subtracting the value of non-originating materials rather than by addition. Similarly, page 15 of the SADC manual on rules of origin provides for the same methodology of COMESA*" The value added is the difference between the ex-factory price of the finished product and the c.i.f. value of imported materials used in production.* Article 1 of the ECOWAS protocol on rules of origin defines value added as follows: ***"Value-added"*** *means the difference, expressed as a percentage, between the ex-factory price of the finished product before tax, and the CIF value of raw materials consumables and packaging of non-ECOWAS origin, used in the manufacture of the final product in the form under which it is released into circulation"*

The only REC that still using the VA methodology by addition as outlined under section 2.1 is ECCAS, for one of the alternative criteria used. In addition, COMESA, ECCAS, SADC are using as one of the alternative criteria a rather unique calculation methodology using as denominator the total cost of materials used in the production of the good as outlined above in section 2.4.

3.2. Ad valorem percentage rule Percentage rules used by AU member states in PTAs with partners

As shown in Table 2 below the method of calculation used by AU member states with the EU under the different EPAs is based on a method of a calculation of a maximum allowance of non-originating materials as outlined above under section 2.1.

US and AGOA still use a value-added calculation as outlined under 2.1. It has to be noted that the AGOA rules of origin also provide for the use of PSROs in the case of textile and clothing and that the US administration has progressively abandoned the use of the ad valorem calculation methodology based on Value-Added to adopt other kind of calculation methodology as discussed below in section 5.

Table 1 - Ad Valorem Percentage Criterion Calculation Methodologies of African RECs[16]

	EAC	SADC	COMESA 1	COMESA 2	ECOWAS	ECCAS 1[17]	ECCAS 2[18]	TFTA [19]1	TFTA 2
Numerator	Value of non-originating materials (VNOM)[20]	Ex factory price – value of non originating materials,[21] VNOM[22]	Value of originating materials [23]VNOM [24]	Ex-factory cost of the finished product – CIF Value of non-originating materials[25]	Ex-factory price of the finished product before tax – CIF value of non-originating materials[26]	Value added (no clear definition of numerator)	Ex-works before tax – CIF value of non-originating materials	VNOM[27]	VOM
Denominator	Ex-works price[28]	Ex-works price[29]	Value of materials used in the production of the goods.[3031]	Ex-Factory Cost[32]	Ex-factory cost[33]	Value of materials used in the production of the goods	Ex-factory price	Ex works price[34]	Ex works price
Method of calculation	**Maximum VNOM**	**Maximum VNOM**	**Maximum VNOM**	**Value added by subtraction VAVNOM**	**Value added by subtraction VAVNOM**	**Maximum VNOM**	**Value added by subtraction VAVNOM**	**Maximum VNOM**	**Minimum VOM**

[16] The rules of origin of the Arab Maghreb Union (UMA) have not been included in the present note as the text available in internet dates to 1991 while the AU secretariat has been notified that a more recent text has been agreed but was not available at the time of this writing.
[17] Extracted from Annex 1 of ECCAS Decision No. 03/CEEAC/CCEG/XI/04 Article (2)-(3)
[18] Extracted from Annex 1 of ECCAS Decision No. 03/CEEAC/CCEG/XI/04 Article (2)-(3)
[19] Based on 2010 protocol 4 on TFTA rules origin
[20] Extracted from EAC Customs Union RoO (2015), Rule 7, paragraph 4 and 5

[22] Extracted from Annex 1 of SADC Protocol on Trade, Rule 2, section 3. See also Appendix I of Annex I.

[24] Extracted from COMESA Protocol of Rules of Origin Rule 4
[25] Extracted from COMESA Protocol of Rules of Origin Rule 2 b-ii
[26] Extracted from Protocol A/P1/1/03of ECOWAS Article 4 (2)
[27] Extracted from Annex on RoO Under Article 12 of the Agreement, Article (5)-(6)
[28] Extracted from EAC Customs Union RoO (2015), Rule 7, paragraph 4 and 5
[29] Extracted from SADC Procedures Manual on the Implementation of RoO Appendix 1 of SADC Protocol on Trade, Part 2, Section 2.5
[30] Together with ECCAS, this is rather unique formulation as it refers as denominator to the total cost of material
[31] Extracted from COMESA Protocol of Rules of Origin Rule 2 b-i
[32] Extracted from COMESA Protocol of Rules of Origin Rule 4
[33] Extracted from Protocol A/P1/1/03of ECOWAS Article 4 (2)
[34] Extracted from Annex on RoO Under Article 12 of the Agreement, Article (5)-(6)

Table 2 - Ad Valorem Percentage Criterion Calculation Methodologies of EU EPA

	EU EPA[35] (CARIFORUM[36], ESA[37], SADC[38], Pacific[39])	**EU MAR[40] (EAC[41])**	**EU EPA[42] (Cameroon[43])**	**EU MAR (ECOWAS[44])**	**EBA[45]**	**US-GSP[46]**	**AGOA[47]**	**Japan-GSP[48]**
Numerator	VNOM	VNOM	VNOM	VNOM	VNOM	Value of originating materials plus direct processing cost	Value of originating materials plus direct processing cost	VNOM
Denominator	Ex-Works Price	Ex-Works Price	Ex-Works Price	Ex-Works Price	Ex-Works Price	Appraised value of the article at the time of entry into the United States	Appraised value of the article at the time of entry into the United States	FOB price
Method of calculation	Maximum VNOM	Maximum VNOM	Maximum VNOM	Maximum VNOM	Maximum VNOM	Value added by addition	Value added by addition	Maximum VNOM

[35] All the EU EPA for SADC, ESA, Cariforum and Pacific follows the same format. For more details, see http://trade.ec.europa.eu/doclib/docs/2008/february/tradoc_137971.pdf.
[36] CARIFOURM member countries are Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, Saint Vincent & Grenadines, Saint Kitts & Nevis, Surinam, Trinidad & Tobago, Dominican Republic
[37] ESA member countries are Madagascar, Mauritius, Seychelles and Zimbabwe
[38] SADC member countries are Botswana, Lesotho, Mozambique, Namibia, South Africa and Swaziland. Angola has an option to join in the future.
[39] Members states include Papua New Guinea and Fiji
[40] For more details, see https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1076&qid=1486666013531. EU MAR (ECOWAS) is also covered in this document.
[41] EAC member includes Kenya
[42] For more details, see https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:057:0002:0360:EN:PDF.
[43] Cameroon has an EU EPA but follows MAR Rules of Origin http://trade.ec.europa.eu/tradehelp/list-arrangements-and-rules-origin
[44] West African countries under MAR are the following: Benin, Burkina Faso, Cape Verde, Gambia, Guinea, Guinea, Bissau, Liberia, Mauritania, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. Ivory Coast and Ghana are under EU EPA.
[45] Fore more details, see http://trade.ec.europa.eu/tradehelp/basic-rules
[46] For more details, see https://ustr.gov/sites/default/files/GSP%20Guidebook%20October%202015%20Final.pdf .
[47] For more details, see https://agoa.info/about-agoa/rules-of-origin.html
[48] For more details, see https://www.mofa.go.jp/policy/economy/gsp/explain.html#section8

4. Comparison and lessons learned in drafting ad valorem percentage criteria

4.1. Advantages and disadvantages of different methodologies for calculating the ad valorem percentage criterion

The nature of each formulation of the percentage criterion affects the administrative effort required to introduce and maintain compliance with criterion. It also affects the substance of the criterion.

Although it may be different in the arithmetical formulation there are two basic methodologies in determining the ad-valorem percentage:

1) A value of material calculation
2) A value added calculation

All the calculations outlined under section 2.2, 2.3 and 2.4, namely 2.2 Value added calculation by subtraction of the value of non-originating materials (VAVNOM) and value of originating materials (VOM), 2.3 Maximum allowance of non-originating materials, 2.4 Maximum allowance of non-originating material over the total cost of materials used, are methodologies based on value of materials calculation.

All these calculations are made taking as a reference the value of materials either originating or non-originating. These calculations based on a value of materials are easier, simpler, and easily verifiable since the value of materials are most of the time based on invoices and can be assessed using a multilateral instrument like the WTO Customs Valuation agreement.

Lesson learned in preferential rules of origin and most recently in the net cost calculations in NAFTA have amply demonstrated that the formulation of ad valorem percentage criterion calculation as value added by addition are complex. These calculations entail detailed rules to define what are allowable and not allowable costs that can be counted as direct cost of processing.

As an example, we may quote the definition of allowable and non-allowable costs that may counted as direct cost of processing in the US GSP and AGOA:

"10.178 Direct costs of processing operations performed in the beneficiary developing country.[49]

(a) *Items included in the direct costs of processing operations. As used in § 10.176, the words "direct costs of processing operations" means those costs either directly incurred in, or which can be reasonably allocated to, the growth, production, manufacture, or assembly of the specific merchandise under consideration. Such costs include, but are not limited to:*

1) All actual labor costs involved in the growth, production, manufacture, or assembly of the specific merchandise, including fringe benefits, on-the-job

[49] See US code of Federal regulations: 19 CFR 10.178

training, and the cost of engineering, supervisory, quality control, and similar personnel;

2) *Dies, molds, tooling, and depreciation on machinery and equipment which are allocable to the specific merchandise;*

3) *Research, development, design, engineering, and blueprint costs insofar as they are allocable to the specific merchandise; and*

4) *Costs of inspecting and testing the specific merchandise.*

(b) Items not included in the direct costs of processing operations. *Those items which are not included within the meaning of the words "direct costs of processing operations" are those which are not directly attributable to the merchandise under consideration or are not "costs" of manufacturing the product. These include, but are not limited to:*

1) *Profit; and*

2) *General expenses of doing business which are either not allocable to the specific merchandise or are not related to the growth, production, manufacture, or assembly of the merchandise, such as administrative salaries, casualty and liability insurance, advertising, and salesmen's salaries, commissions, or expenses.*

These elements may be familiar only to accountants. As prices, costs and quantities change in the production of a given product, recalculation will be necessary to ensure compliance. While some of these tasks may form part of the normal accounting procedures required for commercial purposes, some may not. In such cases, therefore, additional professional expertise may be required. The calculation of the numerator in a value added calculation is complex as it entails:

(i) A distinction of costs, which could be computed as local value added;

(ii) Itemization of such cost to the single unit of production. As a consequence, it often requires accounting, and discretion may be used in assessing unit costs. Additionally, currency fluctuations in beneficiary countries may affect the value of the calculation;

(iii) Low labour costs in developing countries may result in low value added and instead of being a factor of competitiveness may turn out to a factor penalizing producers based in Developing countries.

The US has progressively abandoned the use of value added calculations (VA) (defined as net cost calculation in US terminology) and has continued to use the VA for limited items in the automotive sector. The EU has not used a value-added calculation in any of the FTA Agreements.

In most modern FTAs the US as well as the large majority of countries that have entered into FTAs agreement has replaced the "value addition" with the "build down" calculation shown in section 2.2 (VAVNOM). This is a value of materials calculation.

The calculation under 2.1 (VA) and 2.2 (VAVNOM) are the different sides of the same coin: suppose a product with an ex works price of 100 USD made of 40 USD of non-originating

material, 10 USD of originating materials and 50 dollars being cost of processing and manufacturing (i.e. labour costs, overhead, machinery etc).

It is possible to calculate the Value added by adding the cost of processing and manufacturing to the value of originating material (50+10=60 USD), which corresponds to 60% of value added. Alternatively, it simply possible to deduct from the ex works price of the product the value of non-originating materials and obtain the value added as follows:

Ex-works price – VNOM= 100 – 40 = 60 USD → Value added = 60/100 = 60%.

The second calculation offers a number of advantages since it is not necessary to define the list of costs of direct processing and manufacturing. Moreover the value of non-originating materials can be assessed based on invoices and a multilateral instrument like the WTO customs valuation agreement.

4.2. The issue of cost of freight and insurance in customs value of non-originating and originating materials

One of the important issue that need to be considered in the calculation methodology of the ad valorem percentage criterion is the issue of inclusion/exclusion of the cost of insurance and freight in the definition of customs value.

AU member states and especially landlocked and islands are facing enormous disadvantages on transports costs when they are using imported inputs in the manufacturing of finished products. Even the most generous percentages like the 70% allowance of imported materials in the EBA GSP rules of origin may not be complied if the cost of transport is not adequately addressed in the ad valorem percentage calculation. Most importantly, transport costs are an exogenous variable that is not related to the main purpose of rules of origin: to determine if substantial transformation has taken place. The inclusion/exclusion of such transport costs and insurance is related to the choice of the customs administrations on how to determine customs value to assess duty collection[50]. Obviously the inclusion of transport costs and insurance on customs value raise such values ensuring higher revenues. However higher revenues from customs collection is not the purpose of rules of origin and the use of customs value in the ad valorem calculation methodology. It follows that the definition of customs value in the context of ad valorem calculation methodology should be distinct from the definition of customs value for duty collection since they serve respectively different purposes: a) to define value of materials for origin purposes; b) as basis to assess duty collection.

Thus, in the interest of the proper functioning of the AfCFTA and the special situation of the AU member states should be recognized by special provisions drawing from the most recent

[50] It has to be noted that the WTO customs valuation agreement does not provide a multilateral discipline for the inclusion/exclusion of cost of freight and insurance in the assessment of customs value due to divergence of views and practices among different WTO members. For instance as a general rule, the United States excludes from dutiable "transaction value" any charges relating to the international transportation of goods.

best practices adopted in the Central American Free Trade Area and other best practices adopted in many modern FTAs.

Consider the following example: A manufacturer based in Lilongwe, Malawi is manufacturing steel frames using imported steel tubes. The applicable RoO is a 70% allowance of non-originating inputs. The manufacturer purchase steel tubes from China to manufacture the steel frames for 10.000 USD. After manufacturing the steel tubes into steel frames by cuttings, soldering, galvanizing, coating the manufacturer sell the frames sold to a South Africa importer at an ex-works price of 16.000 USD. It follows the value added calculation below:

$$\frac{10.000}{16.000} = 0{,}625 = 62.5\% < 70\%$$

The frames are therefore are originating.

However, if the value of non-originating material is based on a CIF basis the cost of insurance and freight from China to Lilongwe -an average of 1.250 USD for ocean freight and 3.600 USD for inland[51] transport has to added to the cost of purchasing the container of steel tubes. Thus, the calculation will be as follows:

$$10.000 + 3.600 + 1.250 = 14.850\ USD$$

$$\frac{14.850}{16.000} = 0{,}928 = 92{,}8\% > 70\%$$

The frames are in this case largely exceeding the threshold of 70%.

	Without Freight and Insurance	**With Freight and Insurance**
(a) Foreign Materials	10,000	10,000
(b) Ocean Freight	1250	1250
(c) Inland Freight	3600	3600
(d) Ex-Works Price	16,000	16,000
(e) Value Added Calculation	$\frac{a}{d} = \frac{10000}{16000} \times 100\%$ $= \mathbf{62.5}\% < 70\%$ **Rule satisfied**	$\frac{a+b+c}{d} = \frac{10000+3600+1250}{16000} \times 100\%$ $= \mathbf{92.8}\% > 70\%$ **Rule not satisfied**

The legal texts of COMESA contain a reference to the deduction of costs of insurance and freight for imported materials limited to transit among member states[52]. The EAC manual on rules of origin makes reference to deduction of cost of freight and insurance[53]
The way forward below contains provisions for the exclusion of freight and insurance for the calculations of the maximum allowance of foreign materials when a maximum content of non-originating is used.

[51] UNCTAD estimates based on field visits
[52] See paragraph (b) of rule 4 of the COMESA Protocol on rules of origin
[53] See page 16 of the EAC manual on rules of origin

5. Worldwide best practices on methodologies to draft ad valorem percentage

There is a worldwide convergence on the methodology to draft the ad valorem percentage criterion. The EU and the US, as well as their main counterparts, like Japan, South Korea, Australia, and New Zealand have progressively abandoned a methodology based on the calculations of value added by addition to calculations based on a value of materials. The same trend is observed in FTAs among developing countries in Asia[54] and Latin America[55]. Some innovations have also been introduced, such as the deduction of the addition of cost of freight and insurance under the majority of the most recent US FTAs, including the Trans-Pacific Partnership (TPP). There are, of course, differences in the arithmetical calculations and the definition of numerator and denominator. However, there is real convergence on the concept of calculating the ad valorem percentage based on a value of materials calculation rather than a value added or net cost approach, as used in NAFTA for automotive products. This tendency is confirmed by the evolution of the use of the net cost method in US FTAs that has been gradually introduced in subsequent FTAs, and the introduction of the build-up and build-down method that has replaced the transaction value of NAFTA as shown in Table 3 below.

Table 3 - Evolution of the NAFTA percentage-based RoO[56]

Regional Value Content	NAFTA	CHL-USA	CAFTA	USA-SIN	USA-AUS	USA-KOR	TPP
No. of PSRO	1,125	1,043	1,017	2,974	965	758	1,245
Net cost	323	0	6	0	0	6	22
Transaction	248	0	0	0	0	0	0
Build-up	0	164	146	239	148	147	398
Build-down	0	157	147	213	144	152	457

As a further example Table 4 below shows that a similar trend can be observed in the FTAs entered by South Korea with a variety of trading partners. The regional value content (RVC) is a value of materials calculations that has been invariably used.

[54] See the ASEAN-Dialogue partners FTAs that largely using a value of materials calculation.
[55] The Pacific Alliance uses a value of material calculation.
[56] Calculations made by the author.

Table 4- Ad Valorem Percentage Criterion Calculation Methodologies of Korean FTAs [57]

	Korea-US	**Korea-EU**	**Korea-ASEAN**	**Korea-Singapore**	**Korea-Australia**	**Korea-India CEPA**	**Korea-Chile**	**Korea-Peru**	**Korea-Turkey**
Numerator	Subtraction of VNOM from Adjusted Value (AV) of the good.	VNOM	Subtraction of the VNOM from FOB	Subtraction of VNOM from the Customs Value (CV)	Subtraction of VNOM from AV of the good	Subtraction of VNOM from the FOB value	Subtraction of VNOM from AV of the good.	Subtraction of VNOM from the FOB value	Not Specified
Denominator	AV [58]	Ex-works price	FOB Price	CV	AV	FOB value	AV	FOB value	Ex-works price
Method of calculation	Regional Value Content (RVC) [59]	Maximum VNOM	RVC	RVC	RVC	RVC	RVC	RVC	Maximum VNOM
PSRO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Level of percentage	CH 25-97: 35%-60%[60]	CH 1-24: 30%-50% CH 25-97: 20%-60%	Minimum 40%-45%	Minimum 45%	Minimum 40%	Minimum 35%	Minimum 45%	Minimum 40%-50%	CH 1-24: 30%-50[61]% CH 25-97: 15%-50%
Consideration of freight and insurance	Yes	Not Specified	Yes	Yes	Yes	Yes	Yes	Yes	Not Specified
Cumulation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

[57] Calculations made by the author.

[58] AV means adjusted value defined as the value of the product for customs purposes, usually the arms-length transaction value, adjusted, if necessary, to exclude any costs, charges, or expenses incurred for transportation, insurance, and related services incident to the international shipment of the merchandise from the country of exportation to the place of importation.

[59] RVC is calculated in build down method using VNOM. Alternatively, RVC could be calculated using a build-up method through the value of originating materials.

[60] For CH 25-97, under the build-up method, it is 35%-40%. Majority of CH 1-24 has CTH requirements.

[61] Exception for CH 24: 70%

6. Way forward in the calculation methodology of the AD valorem percentage criterion in AfCFTA

In the light of the above-mentioned lessons learned and best practices, the AU member's states may wish to converge to a calculation methodology based on a value of materials calculation. This methodology is already largely used under the RECs and it eliminates most of the shortcomings of a value-added calculation. The value of material calculation is based on the WTO Customs Valuation Agreement anchoring the rules to a multilateral instrument in use by WTO Members. This method of calculation is similar to the one used by the US in recent FTA agreements with Australia, Singapore, Chile, Central America and other countries as well as to the EU calculation currently used in EPAs, former Cotonou Partnership agreement and Lomé conventions.

The majority of preferential RoO are using the ex works-price or the ex-factory price that are equivalent. Some RECs are using the ex factory cost or similar definition aiming at excluding profit. The difference in denominator affects the calculation of the ad valorem percentage . In a value added calculation by addition like the one used by COMESA ,i.e 35 % of originating materials and direct cost of processing, using the ex-factory cost as denominator instead of the commonly used ex-works or ex factory price inflates the value added.This is mathematically obvious since as the numerator remain equal the denominator shrink relusing on a higher level of percentage. There is hardly any precedent outside these RECs using the ex factory cost. The use of ex-factory cost is not in line with the principle of transaction value contained in the WTO customs Valuation agreement.

The following calculation may be used:

Method Based on Value of Non-Originating Materials

$$AfCFTA = \frac{VNOM}{EW} \times 100$$

Where: **AfCFTA** is the value content, expressed as a percentage; **EW** is the ex-works price as already defined in definition (m) of article 1 of Draft Appendix 1 of AfCFTA; **VNOM** is the value of non-originating materials that are acquired and used by the producer in the production of the good; VNOM does not include the value of a material that is self-produced[62].

The definition of self produced material or absorption principle may need to be included in the definition of calculation methodology

Further Definition of the denominator

Definition (m) of article 1 of the Draft appendix to AfCFTA contains the following definition mirroring the one contained in EPAs

[62] The definition of self produced material or absorption principle may need to be included in the definition of calculation methodology

*"**Ex-works price**" means the price paid for the product ex-works to the manufacturer in the States Party in whose undertaking the last working or processing is carried out, provided the price includes the value of all the materials used minus any internal taxes paid which are, or may be, repaid when the product obtained is exported;*

In the case of the US, the denominator is based on the concept of adjusted value based on the following definition:

For the purposes of this note, the term "adjusted value" means the value determined under articles 1 through 8,article 15 and the corresponding interpretive notes of the Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade (the Customs Valuation Agreement), except that such value may be adjusted to exclude any costs, charges or expenses incurred for transportation, insurance and related services incident to the international shipment of the merchandise from the country of exportation to the place of importation.

The two definitions of denominator mentioned does not differ widely since they make reference either by wording or by direct reference to the transaction value as contained in the WTO Customs Valuation Agreement.

On one hand, the formulation under the US makes explicit reference to the WTO Customs Valuation Agreement resulting in a transparent and predictable text of law binding and applicable by all WTO Members. On the other hand, the expression ex-works price has been widely used by the majority of beneficiaries that are familiar to the ex-works price definition. A solution could be to take the best of the two definitions. The ex-works price in AfCFTA could be defined as follows:

"ex-works price" means the price paid for the product ex-works to the manufacturer in in AfCFTA states in whose undertaking the last working or processing is carried out determined under articles 1 through 8, article 15 and the corresponding interpretive notes of the Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade (the Customs Valuation Agreement).

Alternatively AU members states may maintain the current definition of ex works price contained in the draft appendix and avoid any further complex definition of the ex works price.

Further definition of Numerator: value of non-originating material

It is proposed to exclude the freight and insurance from the value of non-originating materials by including the following provision:

(a) The following expenses are deducted from the value of the non-originating material:

(i) the costs of freight, insurance, packing and all other costs incurred in transporting the material to the location of the producer;

(ii) duties, taxes and customs brokerage fees on the material paid in the territory of one or more AU member states other than duties or taxes that are waived,

refunded, refundable or otherwise recoverable, including credit against duty or tax paid or payable;

(iii) the cost of waste and spoilage resulting from the use of the material in the production of the good, less the value of renewable scrap or by products;

(iv) the cost of originating materials used in the production of the non-originating material;

The adjustments made to the value of materials by deducting the cost of insurance and freight permits a fair comparison among the denominator, i.e. the ex-works price not containing any cost of transport and insurance and the numerator that is the value of non-originating also not containing any cost of transport and insurance. This method of calculation of the value of materials used in manufacturing will greatly facilitate compliance with AfCFTA Rules of Origin by excluding an exogenous factor – cost of transport and insurance - that has nothing to do with compliance with substantial transformation.