UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

STATISTICS DIVISION
TRADE STATISTICS BRANCH
INTERNATIONAL MERCHANDISE TRADE STATISTICS SECTION

Correlation and conversion tables used in UN Comtrade

The Harmonized Coding and Description System (Harmonized System or HS) is regularly updated by the World Customs Organization to accommodate the emergence of new and disappearance of previously existing products. The sixth edition, HS 2017 which is a substantial revision from previous versions came into effect 1.1.2017 and many countries provide their detailed trade data for the reporting year 2017 according to the HS 2017.

For the convenience of users, UN Comtrade provides data not only in the original classification in which it is submitted by countries, but also converted to earlier HS versions (and other trade classifications). This allows easier use of data across countries and time periods such as for publications or other purposes. For some purposes, users might decide to use exclusively originally reported data.

The data conversions from HS 2017 to earlier HS versions developed by UNSD assign one single code (subheading) of an earlier HS edition to each HS 2017 subheading. Yet, users should be aware that the very nature of a revision of a classification does not allow the establishment of a clear 1:1 correspondence for all codes (subheadings) of a new to the codes of previous versions of a classification and should bear in mind the potential shortcomings (different contents than indicated, break in series) for certain subheadings when using converted instead of original data.

The data conversions have been developed based on the best judgment of the staff at the Trade Statistics Branch (TSB) of the United Nations Statistics Division (UNSD) but have no binding character whatsoever. Data users are free to convert the original data provided by countries to different classifications according to their own criteria.

The purpose of this note is to describe the methodology that we used at the UNSD in developing these conversions/ conversion tables from HS 2017 into other classifications (earlier HS editions, SITC and BEC classifications). Please note that we regularly review decisions taken to build conversion tables, and this may lead to revision of those tables.

1. Correlation tables

When a new edition of the HS is issued, the World Customs Organization (WCO) provides correlation tables between the latest and the previous version of the HS which show the relationships between the codes of the two classifications.[1] From such correlation tables it is possible to build (and derive) a correlation table between HS 2017 and any of the previous HS including SITC and BEC. UNSD then compiles and integrates various multiple correlation tables from WCO into a table view, and makes it publicly available at the UNSD website[2].

In the correlation table between HS 2017 and any previous HS edition, four types of relationships are possible:

- The HS 2017 subheading is correlated with one and only one subheading in the previous HS. We refer to this as a 1:1 relationship.

- The HS 2017 subheading is a result of a split of one subheading in the previous classification into several subheadings. We refer to these as n:1 relationship;

- The HS 2017 subheading is the result of merging several subheadings in the previous classification. These are called 1:n relationship;

- The subheading is the result of a split and merge of several subheadings in the previous classification. These are n:n relationships.

Table 1 shows the structure of the correlation table between the HS 2017 and previous HS editions according to the type of relationship between subheadings. For details, visit UNSD website above.

Table 1: Types of relationships between headings in the HS 2017 and previous HS versions

Relationship	HS 2012	HS 2007	HS 2002	HS 1996	HS 1992
1:1	4744	4418	3967	3660	3333
n:1	578	799	948	1153	1332
1:n	44	124	508	560	644
n:n	775	983	1651	2096	2554

The illustration below visualizes the changes in HS codes (from HS 1992 to HS 2017) of "live animals" product groups based on SITC Revision 3 code 001. Merging and splitting of the codes shown in various types of relationship are highlighted. The "live animals" group has been undertaken slight amendments in the past 30 years. However, there are no amendments in this product group between HS 2017 and HS 2012.

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[1] See WCO website at http://www.wcoomd.org/en/topics/nomenclature.aspx

[2] Correlation tables between HS 2017 and the following previous HS versions: HS 2012, HS 2007 HS 2002, HS 1996 and HS 1992; classification of SITC and BEC is provided at http://unstats.un.org/unsd/trade/conversions/HS%20Correlation%20and%20Conversion%20tables.htm

Commodity correlation of "Live animals (SITC 001)"

2. Direct vs. cascading conversion

There are two main methods of conversion: direct conversion or cascading conversion. All conversions from HS 2017 to earlier HS versions have been developed as direct conversion, which means that the HS 2017 codes have been directly compared with the codes of the earlier HS versions. The direct conversion method is more accurate than the cascading conversion method which uses only the relationships between two subsequent versions of the HS. For example, the HS 2017 to HS 2012 and HS 2012 to HS 2007 conversion can be used to automatically derive the conversion from HS 2017 to HS 2007. Furthermore, the consistency of decisions across HS editions is ensured by taking into account decisions applied across classifications.

3. Conversion tables

The aim of the conversion table is to provide guidance in converting trade data in the latest amendment (i.e., HS 2017) into earlier editions (i.e., HS 1992) or other commodity classifications (i.e., SITC, BEC). This would enable, among other things, analysis of long-term series (SITC data in UN Comtrade starts from 1960s) by taking into account changes in classification structures and codes.

UNSD practice is to convert the most detailed level in the original classification (in HS, it is a subheading at the 6 digit level) into one single code, without splitting, in the target classification. This target code could be the at the most detailed level (between HS editions) or at the higher level in the aggregation structure (from HS to SITC or BEC). In other words, the conversion method is to flatten 1:n and/or n:n relationships to 1:1 and/or n:1 relationships so that they can be easily aggregated (as an example, HS 2007 codes 844331 and 844332 are aggregated into HS 2002 code 844359). See illustration below comparing correlation and conversion tables of "Automatic Data Processing Machines".

Correlation and Conversion of "Automatic data processing machines (SITC 752)"

3.1. Conversion to other HS editions

The practice of TSB is to convert a subheading of the current classification (HS 2017) into one and only one subheading (code) of the earlier HS version.[3] This code is selected among those that correlate. For all 1:1 and n:1 relationships no effort is required to assign the only available code. For all 1:n and n:n relationships, the best fitting subheading had to be selected. The selection is made sequentially using the following rules (in order of priority):

1. Rule 0 - **consistency of decision applied across HS classifications**: This rule is applicable only if target HS edition is not the first subsequent version of HS 2017 (in this case, HS 2012). Thus, for conversions between HS 2017 and HS 2007 or earlier, this rule is applied to ensure consistency with the decisions taken in the conversion of HS 2017 to HS 2012. If the specific HS 2007 (or earlier HS editions) code has a 1:1 or n:1 relationship with HS 2017 or earlier, then the related code is selected as the target code (see annex 3 for examples).

2. Rule 1 - **retained code**: The retained code rule assigns the HS 2017 code to the code itself. If one of the correlated subheadings has the same code as the HS 2017 subheading, we convert the HS 2017 subheading into that one. The retained code rule is based on the general WCO praxis that maintains the existing code only if there has been no substantial change of scope. Yet, the code assignments were reviewed to check if there are exceptions to this practice (notably reusing of discontinued HS codes) (see annex 3 for the list of reused codes).

3. Rule 2 – **retained "others" code**: In HS, codes ending in "90" and "99" are normally reserved for "other" categories within the same heading block. If the HS 2017 subheading ending in "90" or "99" correlates to subheadings with the same ending of "90" or "99", then it would be converted to that code. This would ensure that "other" code is retained in the same scope of previous editions (see annex 3 for examples).

4. Rule 3 – **whole code**: The correlated codes within a specific HS 2017 subheading may consist of multiple 1:n and n:n relationships. The existence of n:n relationship implies that there is relationship between that specific HS 2017 code with another HS 2017 subheading. In this case, the preference is given to 1:n relationship, where the whole code correlates only to single HS 2017 subheading (see annex 3 for examples).

5. Rule 4 – **75% trade share**: This method assigns the HS 2017 code to the correlate that accounts for 75 percent or more of the total trade in all the correlates. For this method to be valid, the correlate cannot be in relation with another HS 2017 subheading as indicated to Rule 3 (see annex 3 for examples).

6. Rule 5 – **"others" in heading**: If a "others" is available within established relationships, the HS 2017 subheading is assigned to that code (see annex 3 for examples).

7. Rule 6 – **largest trade share**: The HS 2017 code is assigned to the code that has the largest trade share (see annex 3 for examples).

With the application of the above rules, all 1:n and n:n relationships would be assigned to the best fitted HS subheading. Nevertheless, all selected HS 2017 codes (originated from 1:n and n:n relationships) were further reviewed on a case-by-case basis, especially those codes that are new

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[3] An alternative is to split the trade value of a code into his correlates according to their trade share. Yet, this approach is problematic if the correlated code is in relationship with another code in the current classification.

to HS 2017. We compared product descriptions and combined it with one of the following methods/ considerations:

- The assignments to codes for which the correlation is deemed not precise (for example see annex 2);

- Further comparison with other similar tables produced by other organizations (for more details see annex 5);

- Those subheadings that changed in scope but retained the code are reviewed to ensure consistency (for more details see annex 6);

Table 2. Decision rules applied for each conversion table of HS 2017 into previous HS versions

Algorithm	HS 2012	HS 2007	HS 2002	HS 1996	HS 1992
0 1-to-1 mapping	4744	4418	3967	3660	3333
0 Simple aggregation	578	852	1102	1573	1852
1 Retained code	31	38	198	66	82
2 Retained others code	1	3	4	4	4
3 Whole code	7	5	12	14	14
4 75% trade share	8	23	42	20	34
5 "Others" in heading	11	17	26	12	12
6 Largest trade share	5	32	37	39	57
9 Manual Adjustment	3				

3.2. Conversion to SITC and BEC

If in HS the practice is to convert a subheading (6 digits) into another unique subheading of an earlier HS edition, in SITC or BEC, the conversion of a subheading may be applied to the higher level of SITC and BEC, which are 3 or 4 digits and 1 or 2 digits, respectively. This is to avoid the conversion into a target code that has a significant difference in scope than the original code. As for the conversion method, the main idea is similar with HS to HS conversion – where we keep all 1:1 and n:1 relationships as is and assign all 1:n and n:n relationships to the best fitting SITC or BEC code. The selection is made sequentially using the following rules (in order of priority):

1. Rule 0 - **consistency of decision applied across SITC/BEC editions**: This is a similar rule to the HS-to-HS conversion rule, but takes into account the latest SITC revision (rev.4) and BEC (currently rev.4). If a decision has been taken to convert a specific HS 2017 code to SITC Rev.4 code, then the decision would be applied to previous SITC revisions as long as the target code has either a 1:1 or a n:1 relationship with SITC Rev.4. This rule is also applied for BEC Rev.4.

2. Rule 1 – **75% trade share**: This method assigns the HS 2017 code to the correlate that accounts for 75 percent or more of the total trade in all the correlates. This is applied at the most detailed level of 4/5 digits and 3 digits of SITC and BEC, respectively (see annex 4 for examples).

3. Rule 1 – **75% trade share at higher aggregate**: This method is a variant of rule 1 above. It assigns the HS 2017 code to the correlate at a higher level of aggregation (for SITC up to 3 digits level and for BEC up to 2 digits level) that accounts for 75 percent or more of the total trade in all the correlates. (see <u>annex 4</u> for examples).

4. Rule 2 – **higher level**: For conversions to SITC where trade share is not available, assign to SITC code at the three digit level code among the correlates

5. Rule 3 – **largest trade share**: The HS 2017 code is assigned to the code that has a largest trade share (see Annex n for examples).

Table 3. Decision rules applied for each conversion table of HS 2017 into other SITC and BEC classification

Rule/Algorithm	S4	S3	S2	S1	BE
0 1-to-1 mapping	1779	1618	363	187	
0 Simple aggregation	3496	3292	3068	3866	5286
1 75% trade share	27	268	784	543	33
1 75% trade share at higher aggregate	16	89	557	254	
3 Higher level		10	23	23	
3 Largest trade share	58	109	591	507	67
9 Manual Adjustment	10				

The conversion tables are available at the UNSD website[4].

4. Harmonized System References[5]:

1. Customs Co-operation Council. The Harmonized Commodity Description and Coding System (1992).

2. World Customs Union. Harmonized Commodity Description and Coding System, Second Edition (1996).

3. World Customs Union. Harmonized Commodity Description and Coding System, Third Edition (2002).

4. World Customs Union. Harmonized Commodity Description and Coding System. Fourth Edition (2007).

5. World Customs Union. Harmonized Commodity Description and Coding System. Fourth Edition (2012).

6. World Customs Union. Harmonized Commodity Description and Coding System. Fourth Edition (2017).

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[4] https://unstats.un.org/unsd/trade/conversions/HS%20Correlation%20and%20Conversion%20tables.htm
[5] https://unstats.un.org/unsd/tradekb/Knowledgebase/Harmonized-Commodity-Description-and-Coding-Systems-HS

Annex 1: HS 2017 Complementary Amendments

At the 57th Session Harmonized System Committee[6] in March 2016, in the framework of the HS Nomenclature 2017 Edition that will enter into force on 1 January 2017, the Committee adopted the consolidated version of the amendments to the Explanatory Notes consequential upon the acceptance of the amendments and <u>complementary amendments</u> to the Nomenclature consequential to the Article 16 Council Recommendations of 27 June 2014 and 11 June 2015, respectively.

The substantive amendments[7] are mainly related to heading 44.01 and certain subheadings of Chapter 44 which were inadvertently omitted from the Council Recommendation of 27 June 2014. These amendments are to be implemented on 1 January 2018; however, Contracting Parties are encouraged to apply those from 1 January 2017. Taking this encouragement into account, therefore the correlation and conversion tables developed by UNSD would include the complementary amendments.

Note on: Code 441232 (valid only in 2017 for those that cannot implement complementary amendments)

(*)   Code valid only from 1 January 2017 to 31 December 2017 for HS Contracting Parties which are not able to implement the complementary amendments to Chapter 44 following the acceptance of Council Recommendation of 11 June 2015 (see foreword page ii).

Table 3: Complementary amendments to the HS Nomenclature 2017 Edition

Complementary amendments to the HS Nomenclature 2017 Edition have been accepted as a result of the Council Recommendation of 11 June 2015.

After the acceptance of the HS 2017 amendments as a result of the Council Recommendation of 27 June 2014, the HS Contracting Parties highlighted the need to make certain further corrections and amendments, to accommodate :

(1) replacement of the references to the five-digit codes "0302.9" and "0303.9" in the amendments to subheadings 0302.1, 0302.2, 0302.3, 0302.4, 0302.5, 0302.7, 0302.8, 0303.1, 0303.2, 0303.3, 0303.4, 0303.5, 0303.6 and 0303.8 by references to the appropriate range of six-digit codes, i.e., "0302.91 to 0302.99" and "0303.91 to 0303.99", respectively;

(2) alignment between HS 2017 subheading 6304.20, which specifies that the subheading covers "Bed nets, of warp knit fabrics…" and new Subheading Note 1 to Chapter 63 which refers to "…articles made from fabrics…". The alignment will ensure that there will not be any confusion that the bed nets of subheading 6304.20 should be made "from warp knit fabrics"; and

(3) certain further amendments to the Nomenclature in respect of heading 44.01 and certain subheadings of Chapter 44.

It is to be noted that, as agreed by the HS Committee, the amendments mentioned in (1) and (2) above will not be binding on the Contracting Parties until they enter into force on 1 January 2018 under Article 16 of the HS Convention. Nevertheless, under the corrigendum procedure, the Contracting Parties will be free to apply these amendments as from 1 January 2017 to reflect the situation as from that date. The further amendments to the Nomenclature mentioned in (3) above, which had been inadvertently omitted from the Council Recommendation of 27 June 2014 concerning the 2017 amendment of the HS Nomenclature will enter into effect on 1 January 2018. The HS Contracting Parties are, however, encouraged to apply these amendments also from 1 January 2017.

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[6] http://www.wcoomd.org/en/media/newsroom/2016/april/57th-session-harmonized-system-committee-concludes.aspx

[7] http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/complementary-amendments-to-the-harmonized-system.aspx

Annex 2: Correlations of Multi-component integrated circuits (MCOs)

MCOs are advanced semiconductor devices, defined in new Note 9 (b)(iv) to Chapter 85. They must include an integrated circuit, must be multi-components, must be combined to all intents and purposes indivisibly and must be for mounting onto a PCB or other carrier. The correlation table developed by WCO indicates only general comment between MCOs (HS 2017 subheadings of heading 85.42) and the subheadings under which MCOs might be classified in the HS 2012 edition (see table below).

2017 Version	2012 Version	Remarks
8542.31	8542.31 [Applicable subheadings, in particular in Chapters 84, 85, 90, 93 and 95]	Expansion of the scope of heading 85.42 to include multi-component integrated circuits (MCOs). These MCOs have been defined in new Note 9 (b) (iv) to Chapter 85. Expansion of the scope of heading 85.42 entails the transfer of certain products currently covered by other headings of the Nomenclature (in particular, but not limited to, headings 84.22, 84.31, 84.43, 84.50, 84.66, 84.73, 84.76, 85.04, 85.17, 85.18, 85.22, 85.29, 85.30, 85.31, 85.35, 85.36, 85.37, 85.38, 85.43, 85.48, 87.08, 90.25, 90.26, 90.30, 90.31, 90.32, 90.33, 93.05, 93.06 and 95.04) to subheading 8542.31, 8542.32, 8542.33 or 8542.39.
8542.32	8542.32 [Applicable subheadings, in particular in Chapters 84, 85, 90, 93 and 95]	
8542.33	8542.33 [Applicable subheadings, in particular in Chapter 85]	
8542.39	8542.39 [Applicable subheadings, in particular in Chapters 84, 85, 90, 93 and 95]	

This poses a problem for the creation of conversion exercise, because UNSD correlation tables do not support general comment (requires precisions), therefore, the general comments of HS 2017 MCOs were translated into full comprehensive correlations within available headings in HS 2012 based on the remarks provided by WCO. During the creation of conversion table, those subheadings of MCOs are assigned to the same codes in HS 2012 due to rule of "retained code".

Annex 3: Conversion from HS 2017 to HS 2012 based on method and rules applied

Summary examples:

Rule	HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
1-to-1 mapping	020410	020410	1:1	n/a	020410
Simple aggregation	440796 440797 440799	440799	n:1	n/a	440799

Rule		HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code

Rule	From HS 2017	HS 2012	Relationship type	Trade share (%)	Assigned code
Retained code	480100	480100	1:n	54.69	480100
		480261	n:n	43.27	
		480262	n:n	2.04	
Retained "others" code	401190	401199	1:n	84.33	401199
		401169	1:n	15.67	
Whole code	285390	285300	n:n	76.62	284800
		284800	1:n	23.39	
75% trade share	441873	441872	n:n	80.95	441872
		441879	n:n	16.04	
		441871	n:n	3.01	
"Others" in heading	690721	690890	n:n	64.78	690790
		690790	n:n	29.36	
		690810	n:n	3.39	
		690710	n:n	2.47	
Largest trade share	401180	401194	1:n	60.76	401194
		401163	1:n	22.35	
		401193	1:n	9.18	
		401162	1:n	7.71	
Manual adjustment	030743	030749	n:n	74.34	030749
		030799	n:n	25.66	

Detailed examples:

- Consistency of decision applied across HS classifications:

The HS 2017 code of 020410 is converted to HS 2012 code 020410. Since the relationship of this code to previous editions are 1:1 or n:1, the related code is maintained as the target code in earlier HS editions. The similar case applies to HS 2017 codes 440796, 440797, 440799 which are converted to HS 2012 code 440799.

Rule	From HS 2017	Converted To				
		HS 2012	HS 2007	HS02	HS96	HS92
1-to1 mapping	020410	020410	020410	020410	020410	020410
Simple aggregation	440796 440797 440799	440799	440799	440799	440799	440799

- Retained codes:

In the following example, the HS 2017 code of 480100 is correlated with 480100, 480261 and 480262 codes in HS 2012. Following the retained code rule, we assign HS 2017 480100 to HS 2012 480100.

HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
480100	480100	1:n	54.69	480100
	480261	n:n	43.27	
	480262	n:n	2.04	

In converting HS 2017 to HS 2012, the following are HS 2017 reused codes:

030193	030273	030325	030439	030451	030469
030493	030531	030544	030564	030749	121120
121130	121140	121190	160554	292219	440349
440729	440839	441231	480100	846019	846029

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847290	847340	854231	854232	854233	854239
900659					

- Retained "others" code:

In order to retain the "other" code within the same scope of previous HS editions, we convert HS 2017 codes reserved for "other" categories to the same "other" code in previous versions. In this example, HS 2017 401190 is "Other" and HS 2012 401199 is "Other" within the subheading, "New pneumatic tyres, of rubber".

HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
401190	401169 401199	1:n 1:n	15.67 84.33	401199

- Whole code:

HS 2017 code 293080 is correlated to the codes 293050 and 293090 in HS 2012. It is assigned to 293050 (1:n). The existence of the n:n relationship with 293090 implies that the HS 2017 subheading 293080 has a relationship with another subheading in HS 2017. In this case, it is 293070 and 293060.

HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
293080	293050 293090	1:n n:n	0.57 99.43	293050
293060	293090	n:1	n/a	293090
293070	293090	n:1	n/a	293090

Another example is HS 2017 code 370297. It is correlated to the codes 370291 and 370294 in HS 2007. It is assigned to 370294 (1:n). The existence of the n:n relationship with 370291 implies that the HS 2017 subheading 370297 has a relationship with another subheading in HS 2017. In this case, it is 370296.

HS 2017	HS 2007	Relationship type	Trade share, 2012-2015 (%)	Assigned code
370297	370291 370294	n:n 1:n	7.48 92.5	370294
370296	370291 370293	n:n 1:n	21.93 78.07	370293

- 75% trade share:

In the following example, HS 2017 code 370500 is correlated with 370510 and 370590 codes in HS 2012. The code 370590 accounts for 97.70% of the products correlated with HS 2017 code 370500.

HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
370500	370510 370590	1:n 1:n	2.30 97.70	370590

- "Others" in heading:

In the following example, an HS 2017 code had multiple correlates, including codes that had "others" in its heading. The HS 2017 code was converted to this "others" code on the assumption that there exists a relationship with the HS 2017 code.

HS 2017	HS 2007	Relationship type	Trade share, 2012-2015 (%)	Assigned code
380859	380850	n:n	2.24	380899
	380891	n:n	22.12	
	380892	n:n	28.34	
	380893	n:n	36.52	
	380894	n:n	5.22	
	380899	n:n	5.51	
690721	690710	n:n	2.47	690790
	690790	n:n	29.36	
	690810	n:n	3.39	
	690890	n:n	64.78	

- Largest trade share:

The HS 2017 code 030695 is correlated with 030626 and 030627 in HS 2007. It is assigned to 030627 because the subheading accounts for the largest trade share between the correlates. Similarly, HS 2017 code 600535 is correlated with 600531, 600532, 600533, and 600534. It is assigned to 600532 because the subheading accounts for the largest trade share among the correlates.

HS 2017	HS 2007	Relationship type	Trade share, 2012-2015 (%)	Assigned code
030695	030626	n:n	47.73	030627
	030627	n:n	52.57	
600535	600531	n:n	21.79	600532
	600532	n:n	58.54	
	600533	n:n	10.89	
	600534	n:n	8.78	

- Manual adjustment:

In some situations the method of "largest trade share" will not apply even if it has the largest trade share. Here is an example:

HS 2017	HS 2012	Relationship type	Trade share, 2012-2015 (%)	Assigned code
962000	392690	n:n	14.37	852990
	442190	n:n	1.55	
	681510	n:n	1.57	
	732690	n:n	10.83	
	761699	n:n	3.98	
	843139	n:n	2.35	
	847330	n:n	38.68	
	848790	n:n	1.98	
	852290	n:n	2.43	
	852990	n:n	18.72	
	900590	n:n	0.1	

	900691	n:n	0.1	
	900791	n:n	0.1	
	901590	n:n	1.17	
	903300	n:n	1.15	
	920999	n:n	0.19	

Code 962000 is a new code introduced in HS 2017 and is correlated with a number of codes in HS 2012. A descriptive comparison was done between HS 2017 and HS 2012 and it was determined that the scope of this new code is better converted into 852990 in HS 2012.

Annex 4: Conversion from HS 2017 to SITC Rev.4/BEC: examples

Summary examples:

Rule	From HS 2017	Converted To				
		SITC 4	SITC 3	SITC 2	SITC 1	BE
1 to 1 mapping	050100	29191	29191	29191	29191	21
Simple aggregation	761410 761490	69313	69313	69313	69313	22

Rule	From HS 2017	To	Relationship type	Trade share 2012-2015	Assigned code
75% trade share	580134	SITC 4 65391 65393	n:n n:n	6.54 93.46	65393
	930520	SITC 4 89193 89195	n:n n:n	0.1 99.91	89195
	880100	BEC 521 522	n:n n:n	89.39 10.61	521
75 % trade share at higher aggregate	690721	SITC 4 66244 66245	n:n n:n	31.12 68.88	-
		SITC 4 6624	n:1	100	6624
Largest trade share	030571	BEC 112 122	n:n n:n	29.00 71.00	-
	030571	BEC 11 12	n:n n:n	29.00 71.00	12
Manual adjustment	845640	SITC 4 72849 73114	n:n n:n	97.92 2.08	73114

- Consistency of decision applied across SITC/BEC editions:

HS 2017 code 050100 is converted to 29191 in SITC 4 and 21 in BEC. This conversion is also applied to previous editions of SITC. The same rule was also applied to HS 2017 codes 761410 and 761490 which was converted to 69313 in SITC 4 and 22 in BEC and carried over to previous editions of SITC.

Rule	From HS 2017	Converted To				
		SITC 4	SITC 3	SITC 2	SITC 1	BE
1 to 1 mapping	050100	29191	29191	29191	29191	21
Simple aggregation	761410 761490	69313	69313	69313	69313	22

- 75% trade share:

In the following examples, we see how HS 2017 codes are converted to the correlate that accounts for 75 percent of more of the total trade.   This method is applied at the 5 digit SITC code and the 3 digit BEC code.

HS 2017	SITC 4	Relationship type	Trade share, 2012-2015 (%)	Assigned code
580134	65391 65393	n:n n:n	6.54 93.46	65393
930520	89193 89195	n:n n:n	0.1 99.91	89195

HS 2017	BEC	Relationship type	Trade share, 2012-2015 (%)	Assigned code
880100	521 522	n:n n:n	89.39 10.61	521

- 75% trade share at higher aggregate:

In certain cases, we are unable to comply with the 75% trade share conversion rule at the detailed level. We therefore assign the HS 2017 code to the correlate at the higher level of aggregation.

HS 2017	SITC 4	Relationship type	Trade share, 2012-2015 (%)	Assigned code
690721	66244 66245	n:n n:n	31.12 68.88	-
690721	6624	n:1	100	6624

In the example above, the first row shows that HS 2017 code 690721 correlates to 66244 and 66245 in SITC 4. However, the trade share of each correlate is less than 75 percent and we are therefore unable to convert the HS 2017 code to a detailed SITC 4 code between the two correlates. We check for the conversion at the higher level (refer to second row above), in this case, at 4-digit SITC 4, where we find that the trade share now meets the threshold of 75% or more.

- Largest trade share:

HS 2017	BEC	Relationship type	Trade share, 2012-2015 (%)	Assigned code
030571	112 122	n:n n:n	29.00 71.00	-
030571	11 12	n:n n:n	29.00 71.00	12

In the example above, HS 2017 code 030571 is correlated to codes 112 and 122 in BEC. Each of the correlates does not meet the 75% threshold. Following the preceding rules, we would check at the higher level of aggregation, which in this case are BEC codes 11 and 12. Yet, at the higher-level, the threshold is still not met. We therefore choose the largest trade share at this level and convert the HS 2017 code into the BEC code.

- Manual adjustment:

In some cases, the largest trade share may not be the best conversion with respect to scope. The example below shows this scenario:

HS 2017	SITC 4	Relationship type	Trade share, 2012-2015 (%)	Assigned code
845640	72849	n:n	97.92	72849
	73114	n:n	2.1	
845640	72849	n:n	97.92	73114
	73114	n:n	2.1	(adjusted)

In HS 2017, 845640 is a new code. Despite the majority trade share of code 72849 in SITC 4, it is converted to code 73114 in SITC 4 because the commodity descriptions are better aligned with the original HS 2017 code.

Annex 5. Comparison with other similar tables produced by other organizations

In the effort to assign a specific HS code to the best fitting SITC Rev.4 code, we further compared our conversions with conversions performed by EUROSTAT.

1) In this example, we compare the UNSD conversion of the new HS 2017 code 962000 – Monopods, bipods, tripods and similar articles, with the EUROSTAT conversion.

UNSD		EUROSTAT		Assigned Code
HS 2017	SITC Rev. 4	CN 2017	SITC Rev. 4	SITC Rev.4
962000	75997	9620 00 10	76493	76493
		9620 00 91	69979	
		9620 00 99	69969	

HS 2017 Code: 9620.00 Monopods, bipods, tripods and similar articles.

SITC Rev. 4
759 - Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines falling within groups 751 and 752
  759.9 - Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with the machines of subgroups 751.1, 751.2, 751.9 and group 752.
    759.97 - ....for the machines of group 752
      752- Automatic data-processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, n.e.s.

764 - Telecommunications equipment, n.e.s., and parts, n.e.s., and accessories of apparatus falling within division 76
  764.9 - Parts and accessories suitable for use solely or principally with the apparatus of division 76
    764.93 - ....with the apparatus and equipment of groups 761 and 762 and subgroups 764.3 and 764.8
      761 - Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus
      762 - Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock
      764.3 - Transmission apparatus for radio-telephony, radio-telegraphy, radio-broadcasting or television, whether or not incorporating reception apparatus or sound-recording or reproducing apparatus
      764.8 - Telecommunications equipment, n.e.s.

699 - Manufactures of base metal, n.e.s.
  699.7 - Articles, n.e.s., of copper, nickel, aluminium, lead, zinc and tin
    699.79 - Articles of aluminium, n.e.s.

699 - Manufactures of base metal, n.e.s.
  699.6 - Articles of iron or steel, n.e.s.
    699.69 - Articles of iron or steel, n.e.s.

After comparing the conversions of UNSD to EUROSTAT, it was noted that digital cameras are converted to 764.84 and their accessories are converted to 764.93. Hence, it was determined that the scope of this new code is better converted to SITC Rev. 4 764.93 as these products are commonly used to support related apparatus.

2) In this example, we compare the conversion of HS Code 020760 to SITC Rev. 4 and further reviewed the product descriptions of the target SITC Rev. 4 codes.

UNSD		EUROSTAT	
HS 2017	SITC Rev. 4	CN 2017	SITC Rev. 4
020760	0123	0207 60 05	01231
		0207 60 10	01234
		0207 60 21	01234
		0207 60 31	01235
		0207 60 41	01235
		0207 60 51	01234
		0207 60 61	01235
		0207 60 81	01235
		0207 60 91	01235
		0207 60 99	01235

HS Code: 020760
02.07 Meat and edible offal, of the poultry of heading 01.05, fresh, chilled or frozen.
 0207.60 - Of guinea fowls

SITC Rev. 4
012 - Other meat and edible meat offal, fresh, chilled or frozen (except meat and meat offal unfit or unsuitable for human consumption)
 012.3 - Meat and edible offal of the poultry of subgroup 001.4, fresh, chilled or frozen
  012.31 - Poultry not cut in pieces, fresh or chilled
  012.32 - Poultry not cut in pieces, frozen
  012.33 - Fatty livers of geese or ducks, fresh or chilled
  012.34 - Poultry cuts and other offal, fresh or chilled
  012.35 - Poultry cuts and offal, frozen

The product descriptions in HS 2017 are categorized into poultry types, while the product descriptions in SITC Rev. 4 are not. Therefore, based on the product descriptions, it is not feasible to convert the HS code to an exact SITC Rev. 4 code at the 5-digit level and the approach is to convert to the next higher level of aggregation (3 or 4 digit), that is SITC Rev. 4 code 0123, which is more appropriate based on the product description.

For technical reasons, EUROSTAT requires conversion to the 5-digit SITC.

Annex 6. Subheadings which changed in scope and reviewed for consistency[4]

There are there sub-heading codes that have been reused in HS 2017: HS codes 130214 (*Vegetable saps and extracts; of ephedra*), 291817 (*Acids; carboxylic acids, (with alcohol function but without other oxygen function), 2,2-Diphenyl-2-hydroxyacetic acid (benzilic acid)*) and 292112 (*Amine-function compounds; acyclic monoamines and their derivatives, and salts thereof, 2-(N,N-Dimethylamino)ethylchloride hydrochloride*) which were valid in HS 1992-HS 2002 but not in HS 2007 and HS 2012. The final decision on the conversion is as follows:

HS 2017	HS 1992 – HS 2002
130214	130219
291817	291819
292112	292119