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 seventh edition, HS 2022, which is a substantial revision from previous versions, came into effect on 1 January 2022, and many countries provide their detailed trade data for the reporting year 2022 according to the HS 2022.

For the convenience of users, UN Comtrade provides data in the original classification in which it is submitted by countries and also converted data in earlier HS versions (and other trade classifications). This allows easier use of data across countries and 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 2022 to earlier HS versions developed by UNSD assign one single code (subheading) of an earlier HS edition to each HS 2022 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 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 Section (TSS) at the Economic Statistics Branch 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 2022 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 the 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 2022 and any of the previous HS versions and 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 2022 and any previous HS edition, four types of relationships are possible:

- The HS 2022 subheading is correlated with one and only one subheading in the previous HS. We refer to this as a 1:1 relationship.

- The HS 2022 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 2022 subheading is the result of merging several subheadings in the previous classification. These are called 1:n relationships;

- 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 2022 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 2022 and previous HS versions

Relationship	HS 2017	HS 2012	HS 2007	HS 2002	HS 1996	HS 1992
1:1	4097	3714	3414	3082	2822	2582
n:1	1392	1718	1914	1921	2082	2176
1:n	54	70	131	421	457	536
n:n	10114	10875	11176	12818	13239	13606

The illustration below visualizes the changes in HS codes (from HS 1992 to HS 2022) of "live animals" product groups based on SITC Revision 3 code 001. Merging and splitting of the codes shown in various types of relationships are highlighted. The "live animals" group has undertaken slight amendments in the past 30 years.

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

[2] Correlation tables between HS 2022 and the following previous HS versions: HS 2017, HS 2012, HS 2007 HS 2002, HS 1996 and HS 1992; classifications of SITC and BEC are provided at
https://unstats.un.org/unsd/classifications/Econ

Commodity correlation of "Live animals (SITC 001)"
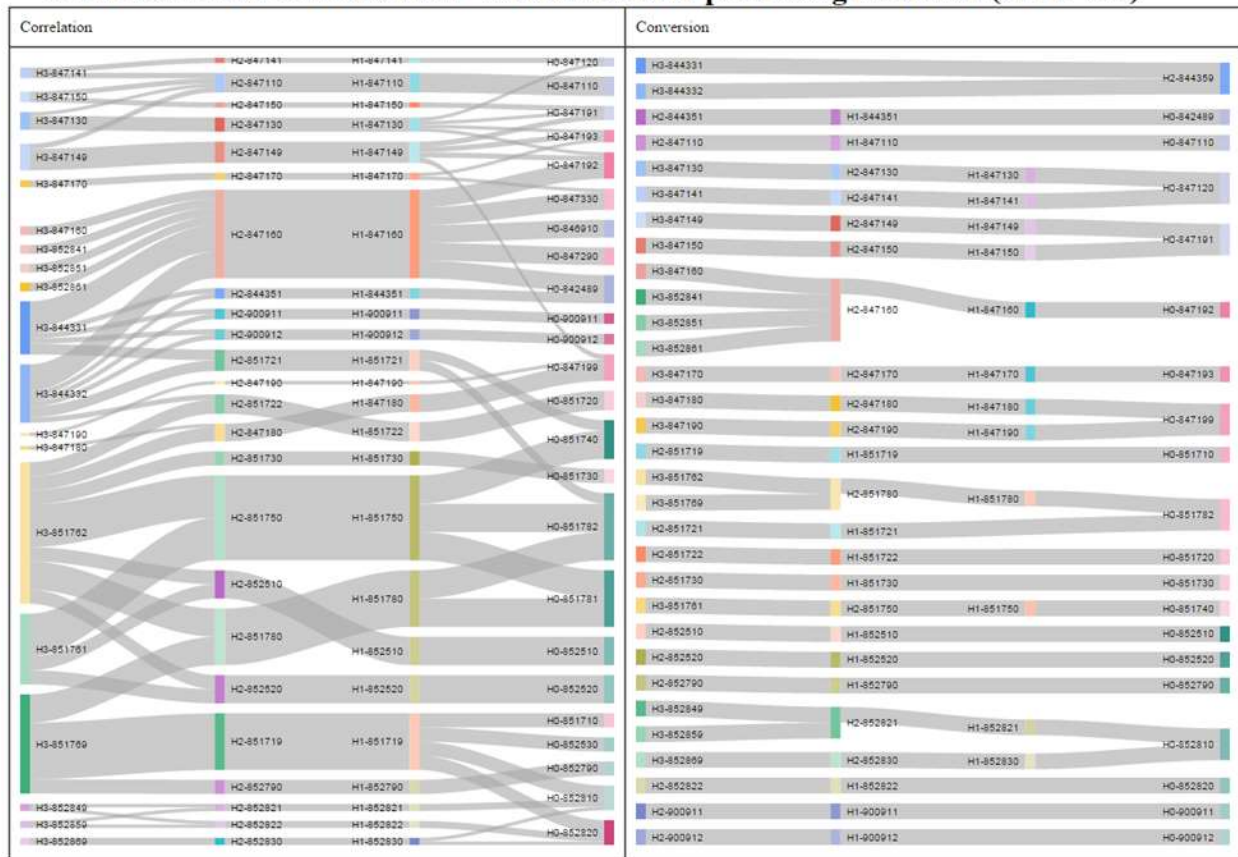

2. Direct vs. cascading conversion

There are two main methods of conversion: direct conversion or cascading conversion. All conversions from HS 2022 to earlier HS versions have been developed as direct conversion, which means that the HS 2022 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 2022 to HS 2017 and HS 2017 to HS 2007 conversion can be used to automatically derive the conversion from HS 2022 to HS 2007. Furthermore, the consistency of decisions across HS editions is ensured by considering 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 2022) 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 the 1960s) by considering changes in classification structures and codes.

UNSD's 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 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 relationship so that they can be easily aggregated (as an example, HS 2007 codes 844331 and 844332 are aggregated into HS 2002 code 844359). See the illustration below comparing the correlation and conversion tables of "Automatic Data Processing Machines".

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

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3.1. Conversion to other HS editions

The practice of UNSD is to convert a subheading of the current classification (HS 2022) 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 the target HS edition is not the first subsequent version of HS 2022 (in this case, HS 2017). Thus, for conversions between HS 2022 and HS 2007 or earlier, this rule is applied to ensure consistency with the decisions taken in the conversion of HS 2022 to HS 2017. If the specific HS 2007 (or earlier HS editions) code has a 1:1 or n:1 relationship with HS 2022 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 2022 code to the code itself. If one of the correlated subheadings has the same code as the HS 2022 subheading, we convert the HS 2022 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 re-using of discontinued HS codes) (see annex 3 for the list of re-used 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 2022 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 as previous editions (see annex 3 for examples).

4. Rule 3 – **whole code**: The correlated codes within a specific HS 2022 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 2022 code with another HS 2017 subheading. In this case, the preference is given to the 1:n relationship, where the whole code correlates only to a single HS 2022 subheading (see annex 3 for examples).

5. Rule 4 – **75% trade share**: This method assigns the HS 2022 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 to another HS 2022 subheading as indicated in Rule 3 (see annex 3 for examples).

6. Rule 5 – **"others" in heading**: If a "others" is available within established relationships, the HS 2022 subheading is assigned to that code (see annex 3 for examples).

7. Rule 6 – **largest trade share**: The HS 2022 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 2022 codes (originated from 1:n and n:n

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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.

relationships) were further reviewed on a case-by-case basis, especially those codes that are new to HS 2022. We compared product descriptions and combined them with one of the following methods/ considerations:

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

- Further comparison with other similar tables produced by other organizations (for more details, see <u>annex 5</u>);

- Those subheadings that changed in scope but retained the code (for more details, see <u>annex 6</u>);

Table 2. Decision rules applied for each conversion table of HS 2022 into previous HS versions

Algorithm	HS 2017	HS 2012	HS 2007	HS 2002	HS 1996	HS 1992
0 1-to-1 mapping	4097	3714	3714	3082	2882	2582
0 Simple aggregation	1392	1718	1914	1921	2082	2176
1 Retained code	38	31	37	198	70	81
2 Retained others code	4	1	3	4	4	4
3 Whole code	6	3	5	5	12	12
4 75% trade share	27	10	26	73	20	35
5 "Others" in heading	7	15	16	41	11	16
6 Largest trade share	38	15	34	45	46	73
9 Manual Adjustment	4					

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.5). If a decision has been taken to convert a specific HS 2022 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.5.

2. Rule 1 – **75% trade share**: This method assigns the HS 2022 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 <u>annex 4</u> for examples).

3. Rule 1 – **75% trade share at higher aggregate**: This method is a variant of rule 1 above. It assigns the HS 2022 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 annex 4 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 2022 code is assigned to the code that has a largest trade share (see annex 4 for examples).

**Table 3. Decision rules applied for each conversion table of HS 2022
into other SITC and BEC classification**

Rule/Algorithm	S4	S3	S2	S1	B4	B5
0 1-to-1 mapping	1257	1164	294	175		5
0 Simple aggregation	4156	3842	3161	3394	5468	5562
1 75% trade share	41	335	1063	632	47	7
1 75% trade share at higher aggregate	33	142	441	230	5	3
3 Higher level		10	28	28		
3 Largest trade share	15	54	497	346	96	31
9 Manual Adjustment	109					

The conversion tables are available on 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. Fifth Edition (2012).

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

7. World Customs Union. Harmonized Commodity Description and Coding System. Seventh Edition (2022).

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[4] https://unstats.un.org/unsd/classifications/Econ
[5] https://unstats.un.org/wiki/pages/viewpage.action?pageId=87426301

<u>Annex 1</u>: HS 2022 Complementary Amendments

After accepting the HS 2022 amendments, in the framework of the Council Recommendation of 28 June 2019, the Contracting Parties highlighted the need to make certain corrections and additional amendments to correct certain omissions and editorial errors. These additional amendments were adopted at the 135th/136th Sessions of the Council in June 2020.

Subsequently, the requirement to make a consequential amendment to Note 1 (g) to Chapter 13 was also identified. This Note refers to "blood-grouping reagents (heading 30.06)", however, the Council Recommendation of 28 June 2019, transferred blood-grouping reagents to heading 38.22 for HS 2022. This, with some minor errata, are the subject of a Recommendation for the 138th/139th Council in June 2021.

These amendments are to be implemented on 1 January 2023 and 1 January 2024, respectively; however, Contracting Parties are encouraged to apply those from 1 January 2022. Taking this encouragement into account, therefore the correlation and conversion tables developed by UNSD would include the complementary amendments.

Table 3: Complementary amendments to the HS Nomenclature 2022 Edition

Complementary amendments to the HS Nomenclature 2022 Edition have been accepted as a result of the Council Recommendation of 25 June 2020[6].
After the acceptance of the HS 2022 amendments as a result of the Council Recommendation of 28 June 2019, the HS Contracting Parties highlighted the need to make certain further corrections and amendments, to accommodate:
(1) corrections of the French and English texts of the titles of Chapter 16 and Section IV, Subheading Note 2 to Chapter 44, Note 4 to Chapter 61, Note 9 (d) to Section XV, Note 11 (A) to Chapter 84, Note 11 to Chapter 85, Note 12 (a) (i) (2) to Chapter 85, Note 12 (b) (iv) 3. (a) to Chapter 85, Notes 1 (u) and 6 (b) to Chapter 95, headings 03.09, 15.15, 23.06, 70.01, 81.12, 85.41, 95.04 and 97.05 and subheadings 2931.47, 2933.34, 2936.24, 3402.3, 3402.4, 4412.52, 6903.10, 8418.10, 8462.32, 8501.80, 8549.21, 8549.31, 8549.91 and 8807.30; and
(2) amendments to Note 1 (e) to Chapter 21, the title of the Note to Chapter 24, Note 1 (f) to Chapter 26, the title of Sub-Chapter IV of Chapter 29, heading 88.02, subheading 2909.60, Note 1 (b) to Section XI, Note 1 (a) to Chapter 67, Note 2 to Chapter 84 and Note 5 (A) to Chapter 97.
It is to be noted that, as agreed by the HS Committee, the amendments above will not be binding on the Contracting Parties until they enter into force on 1 January 2023 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 2022 to reflect the situation as from that date. The HS Contracting Parties are, however, encouraged to apply these amendments also from 1 January 2022.
Complementary amendments to the HS Nomenclature 2022 Edition have been accepted as a result of the Council Recommendation of 24 June 2021.[7]
After the acceptance of the HS 2022 amendments as a result of the Council Recommendations of 28 June 2019 and 25 June 2020, the HS Contracting Parties highlighted the need to make certain further corrections, to accommodate:
(1) corrections of the French and English texts of Note 1 (g) to Chapter 13 and Note 4 (e) to Chapter 30;

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[6] http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/nomenclature/instruments-and-tools/hs-nomenclature-2022/ng0266b1.pdf?la=en

[7] http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/nomenclature/instruments-and-tools/hs-nomenclature-2022/ng0274ba.pdf?la=en

(2) correction of the English text of the introductive sentence of Note 1 to Chapter 69;
(3) correction of the French text of Note 1 (a) to Chapter 69;
(4) deletions of the title "Note" from Chapters75, 76, 78, 79 and 80; and
(5) deletion of the title "Subheading Note" from Chapter 81.

It is to be noted that, as agreed by the HS Committee, the amendments above will not be binding on the Contracting Parties until they enter into force on 1 January 2024 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 2022 to reflect the situation as from that date. The HS Contracting Parties are, however, encouraged to apply these amendments also from 1 January 2022.

Annex 2: Correlations of "flat panel display modules"

"Flat panel display modules", defined in new note 7 to Chapter 85, refer to devices or apparatus for the display of information, equipped at a minimum with a display screen, which are designed to be incorporated into articles of other headings prior to use. Display screens for flat panel display modules include, but are not limited to, those which are flat, curved, flexible, foldable or stretchable in form, and may also incorporate additional elements. The correlation table developed by WCO indicates a general comment between "flat panel display modules" and the subheadings under which "flat panel display modules" might be classified in the HS 2017 edition (see table below).

2022 Version	2017 Version	Remarks
8524.11 8524.12 8524.19 8524.91 8524.92 8524.99	Applicable subheadings, in particular, in Chapters 84, 85, 90 and 95.	New Note 7 to Chapter 85 and new heading 85.24 for flat panel display modules entail the possible transfer of certain products currently covered by other headings of the Nomenclature (such as 84.13, 84.14, 84.15, 84.17, 84.18, 84.19, 84.21, 84.22, 84.23, 84.24, 84.31, 84.36, 84.38, 84.41, 84.43, 84.48, 84.50, 84.51, 84.52, 84.66, 84.73, 84.75, 84.76, 84.77, 84.78, 84.79, 84.86, 85.03, 85.04, 85.08, 85.09, 85.10, 85.12, 85.14, 85.16, 85.17, 85.18, 85.22, 85.29, 85.30, 85.31, 85.38, 85.43, 85.48, 86.07, 87.08, 87.14, 87.16, 88.03, 88.05, 90.05, 90.06, 90.07, 90.08, 90.10, 90.11, 90.12, 90.13, 90.14, 90.15, 90.17, 90.18, 90.19, 90.20, 90.21, 90.22, 90.23, 90.24, 90.25, 90.26, 90.27, 90.28, 90.29, 90.30, 90.31, 90.32, 90.33, 95.03, 95.04, 95.05 and 95.06) to heading 85.24.

This poses a problem for the creation of conversion exercise, because UNSD correlation tables do not support general comment(s) (requires precisions), therefore, the general comments of HS 2022 "flat panel display modules" were translated into full comprehensive correlations within available headings in HS 2017 based on the remarks provided by WCO. During the creation of conversion table, those subheadings of "flat panel display modules" are assigned to the single code in HS 2017 due to rule of "largest trade share".

Annex 3: Conversion from HS 2022 to HS 2017 based on method and rules applied

Summary examples:

Rule	HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
1-to-1 mapping	030910	030510	1:1	n/a	030510
Simple aggregation	150920 150930 150940	150910	n:1	n/a	150910
Retained code	611610	611610 611693 611692 611699 611691	1:n n:n n:n n:n n:n	57.81 25.81 10.61 3.33 2.44	611610
Retained "others" code	490590	490599 490510	1:n 1:n	62.92 37.08	490599
Whole code	040320	190190 040310	n:n 1:n	74.10 25.90	040310
75% trade share	580210	580219 580211	1:n 1:n	77.28 22.72	580219
"Others" in heading	701980	701990 701939	n:n n:n	57.42 42.58	701990
Largest trade share	701965	701940 701951	n:n n:n	70.47 29.53	701940
Manual adjustment	240411	240391 240399	n:n n:n	18.97 81.03	240391

Detailed examples:

- Consistency of decision applied across HS classifications:

The HS 2022 code of 030910 is converted to HS 2017 code 030510. Since the relationship of, this code to previous editions is 1:1, the related code is maintained as the target code in earlier HS editions. A similar case applies to HS 2022 codes 150920, 150930, and 150940 which are converted to HS 2017 code 150910, with their relationships to previous editions as n:1.

Rule	From HS 2022	Converted To					
		HS2017	HS 2012	HS 2007	HS02	HS96	HS92
1-to1 mapping	030910	030510	030510	030510	030510	030510	030510
Simple aggregation	150920 150930 150940	150910	150910	150910	150910	150910	150910

- Retained codes:

In the following example, the HS 2017 code of 611610 is correlated with 611610, 611691, 611692, 611693, and 611699 codes in HS 2017. Following the retained code rule, we assign HS 2022 611610 to HS 2017 611610.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
611610	611610 611693	1:n n:n	57.81 25.81	611610

	611692	n:n	10.61	
	611699	n:n	3.33	
	611691	n:n	2.44	

In converting HS 2022 to HS 2017, the following are HS 2022 re-used codes:

030721	030722	030729	070410	160100	160210
160290	290960	293333	293949	380859	381600
440322	440324	440326	440394	440396	611610
621020	621030	681299	681591	701990	841490
841810	846229	846249	847920	850780	851981
852990	853990	900653	900659	902110	902129
902221	902229				

- Retained "others" code:

In order to retain the "other" code within the same scope of previous HS editions, we convert HS 2022 codes reserved for "other" categories to the same "other" code in previous versions. In this example, HS 2022 490590 is "Other" and HS 2017 490599 is "Other" within the subheading, "Maps and hydrographic or similar charts of all kinds, including atlases, wall maps, topographical plans and globes, printed.".

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
490590	490599	1:n	62.92	490599
	490510	1:n	37.08	

- Whole code:

HS 2022 code 040320 is correlated to the codes 190190 and 040310 in HS 2017. It is assigned to 040310 (1:n). The existence of the n:n relationship with 190190 implies that the HS 2017 subheading 190190 has a relationship with another subheading in HS 2022. In this case, it is HS2022 code 160290, which is assigned to the same HS 2017 code following the retained code rule.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
040320	190190	n:n	74.10	040310
	040310	1:n	25.90	
160290	210690	n:n	53.96	160290
	180690	n:n	17.42	
	170490	n:n	12.93	
	190190	n:n	11.31	
	041000	n:n	2.17	
	190490	n:n	1.57	
	160290	1:n	0.65	

Another example is HS 2022 code 370297. It is correlated to the codes 300211, 300213, 300214 and 300215 in HS 2017. It is assigned to 300211 (1:n). The existence of the n:n relationships with 300213, 300214 and 300215 implies that these HS 2017 subheadings 300213, 300214 and 300215 have a relationship with other subheadings in HS 2017. In this case, they are codes HS2022 382212 and 382219. HS2022 282212 is assigned to 300215 following the largest share

rule and HS2022 382219 is manually assigned to 382200 following a descriptive comparison and it was determined that the scope of this new code is better converted into 382200 in HS 2017.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
382211	300215	n:n	74.03	300211
	300214	n:n	20.01	
	300213	n:n	5.64	
	300211	1:n	0.33	
382212	300215	n:n	64.65	300215
	300214	n:n	17.47	
	382200	n:n	12.95	
	300211	1:n	4.92	
382219	300215	n:n	64.65	382200
	300214	n:n	17.47	
	382200	n:n	12.95	
	300213	n:n	4.92	

- 75% trade share:

In the following example, HS 2022 code 442120 is correlated with 442199 and 442191 codes in HS 2017. The code 442199 accounts for 87.00% of the products correlated with HS 2022 code 442120.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
442120	442199	n:n	87.00	442199
	442191	n:n	13.00	

- "Others" in heading:

In the following examples, each of the HS 2022 codes below had multiple correlates, including codes that had "others" in its heading. The HS 2022 codes were converted to this "others" code on the assumption that there exists a relationship with the HS 2022 code.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
701980	701990	n:n	57.42	701990
	701939	n:n	42.58	
870452	870490	n:n	53.70	870490
	870432	n:n	46.63	

- Largest trade share:

The HS 2022 code 701965 is correlated with 701940 and 701951 in HS 2017. It is assigned to 701940 because the subheading accounts for the largest trade share between the correlates. Similarly, HS 2022 code 880629 is correlated with 880240, 852580, 880230, 880212, 880211, and 880220. It is assigned to 600532 because the subheading accounts for the largest trade share among the correlates.

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
701965	701940	n:n	70.47	701940
	701951	n:n	29.53	
880629	880240	n:n	74.80	600532
	852580	n:n	13.73	
	880230	n:n	6.27	
	880212	n:n	3.62	
	880211	n:n	0.83	
	880220	n:n	0.75	

- Manual adjustment:

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

HS 2022	HS 2017	Relationship type	Trade share, 2017-2020 (%)	Assigned code
382219	300213	n:n	64.65	382200
	300214	n:n	17.47	
	300215	n:n	12.95	
	382200	n:n	4.92	

Code 382219 is a new code introduced in HS 2022 and is correlated with many codes in HS 2017. A descriptive comparison was made between HS 2022 and HS 2017, and it was determined that the scope of this new code is better converted into 382200 in HS 2017.

Annex 4: Conversion from HS 2022 to SITC Rev.4/BEC: examples

Summary examples:

Rule	From HS 2022	Converted To					
		SITC 4	SITC 3	SITC 2	SITC 1	BEC 4	BEC 5
1 to 1 mapping	420100	6122	6122	6122	6122	62	113202
Simple aggregation	761410 761490	69313	69313	69313	69313	22	311210

Rule	From HS 2022	To	Relationship type	Trade share 2017-2020	Assigned code
75% trade share	580210	SITC 4 65213 65212	1:n 1:n	77.35 22.65	65213
	410190	SITC 4 21129 21121	n:n n:n	87.60 12.40	21129
	880100	BEC 4 521 522	n:n n:n	86.13 13.87	521
	160210	BEC 5 113101 113201	n:n n:n	79.12 20.88	113101
75 % trade share at higher aggregate	690723	SITC 4 66244 66245	n:n n:n	52.26 47.74	-
		SITC 4 6624	n:1	100	6624

Rule	From HS 2022	To	Relationship type	Trade share 2017-2020	Assigned code
Largest trade share	030571	BEC 4 122 112	n:n n:n	72.53 27.47	12
	240419	BEC 5 113101 211220	n:n n:n	55.89 44.11	113101
Manual adjustment	030639	SITC 4 03721 0362	n:n n:n	93.57 6.43	0362

- Consistency of decision applied across SITC/BEC editions:

HS 2022 code 420100 is converted to 6122 in SITC 4, and this conversion is also applied to previous editions of SITC. The same rule was also applied to HS 2022 codes 761410 and 761490, which were converted to 69313 in SITC 4 and carried over to previous editions of SITC.

Rule	From HS 2022	Converted To					
		SITC 4	SITC 3	SITC 2	SITC 1	BEC 4	BEC 5
1 to 1 mapping	420100	6122	6122	6122	6122	62	113202
Simple aggregation	761410 761490	69313	69313	69313	69313	22	311210

- 75% trade share:

In the following examples, we see how HS 2022 codes are converted to the correlate that accounts for 75 percent more of the total trade.   This method is applied at the most detailed level: 5digit SITC code, 3-digit BEC 4 code and 5-digit BEC 5 code.

Rule	From HS 2022	To	Relationship type	Trade share 2017-2020	Assigned code
75% trade share	580210	SITC 4 65213 65212	1:n 1:n	77.35 22.65	65213
	410190	SITC 4 21129 21121	n:n n:n	87.60 12.40	21129
	880100	BEC 4 521 522	n:n n:n	86.13 13.87	521
	160210	BEC 5 113101 113201	n:n n:n	79.12 20.88	113101

HS 2022	SITC 4	Relationship type	Trade share 2017-2020 (%)	Assigned code
580210	65213 65212	1:n 1:n	77.35 22.65	65213
410190	21129 21121	n:n n:n	87.60 12.40	21129

HS 2022	BEC 4	Relationship type	Trade share 2017-2020 (%)	Assigned code
880100	521	n:n	86.13	521
	522	n:n	13.87	

HS 2022	BEC 5	Relationship type	Trade share 2017-2020 (%)	Assigned code
160210	113101	n:n	79.12	113101
	113201	n:n	20.88	

- 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 2022 code to the correlate at the higher level of aggregation.

HS 2022	SITC 4	Relationship type	Trade share, 2017-2020 (%)	Assigned code
690723	66244	n:n	52.26	-
	66245	n:n	47.74	
690723	6624	n:1	100	6624

In the example above, the first row shows that HS 2022 code 690723 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 2022 code to a detailed SITC 4 code between the two correlates. We check for the conversion at the higher level (refer to the second row above), in this case, at 4-digit SITC 4, where the trade share now meets the threshold of 75% or more.

- Largest trade share:

HS 2022	BEC 4	Relationship type	Trade share, 2017-2020 (%)	Assigned code
030571	122	n:n	72.53	-
	112	n:n	27.47	
030571	12	n:n	72.53	12
	11	n:n	27.47	

In the example above, HS 2022 code 030571 is correlated to codes 112 and 122 in BEC 4. 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 2022 code into the BEC code.

HS 2022	BEC 5	Relationship type	Trade share, 2017-2020 (%)	Assigned code
240419	113101	n:n	55.89	113101
	211220	n:n	44.11	

In the example above, HS 2022 code 240419 is correlated to codes 113101 and 211220 in BEC 5. Each of the correlates does not meet the 75% threshold. Following the preceding rules, we would check at the higher level of aggregation. Yet, the threshold is still not met at each of the

higher levels. In this case, we choose the largest trade share at the detailed code and convert the HS 2022 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 2022	SITC 4	Relationship type	Trade share, 2017-2020 (%)	Assigned code
300249	54163	n:n	91.19	54164 (adjusted)
	51573	n:n	6.05	
	54164	n:n	2.76	
440342	2479	n:n	83.36	2475 (adjusted)
	2475	n:n	16.64	

In HS 2022, 300249 is a new code. Despite the majority trade share of code 54163 in SITC 4, it is converted to code 54164 because the commodity descriptions are better aligned with the HS 2022 code.

HS 2022:
3002.49 Toxins, cultures of micro-organisms (excluding yeasts) and similar products; n.e.c. in item 3002.3

SITC Rev.4:
515 - Organo-inorganic compounds, heterocyclic compounds, nucleic acids and their salts, and sulphonamides

    515.7 - Other heterocyclic compounds; nucleic acids
      515.73 - Other heterocyclic compounds containing an unfused imidazole ring, whether/not hydrogenated, in the structure

541 - Medicinal and pharmaceutical products, other than medicaments of group 542
    541.6 - Glycosides; glands or other organs and their extracts; antisera, vaccines and similar products
      541.63 - Antisera & other blood fractions; vaccines
      541.64 - Human blood; animal blood prepared for therapeutic, prophylactic/diagnostic uses; toxins, cultures of micro-organisms (excluding yeasts) & similar products

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Another example is 440342, which is also a new code in HS 2022. Despite the majority trade share of code 2479 in SITC 4, it is converted to code 2475 in SITC 4 because the commodity descriptions are better aligned with code HS 2022 440342.

HS 2022:
4403.42 Wood, tropical; teak, in the rough, whether or not stripped of bark or sapwood, or roughly squared, untreated

SITC Rev.4:
247 - Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared
   247.5 - Wood of non-coniferous species, in the rough (whether/not stripped of bark/sapwood)/roughly squared, but not treated with paint, stains/other preservatives of the following tropical woods:Abura, Acajou d'Afrique, Afrormosia, Ako, Alan, Andiroba, Aningré, Avodiré, Azobé, Balau, Balsa, Bossé clair, Bosséfoncé, Cativo, Cedro, Dabema, Dark Red Meranti, Dibétou,Doussié, Framiré, Freijo, Fromager, Fuma, Geronggang,Ilomba, Imbuia, Ipé, Iroko, Jaboty, Jelutong, Jequitiba,Jongkong, Kapur, Kempas, Keruing, Kosipo, Kotibé, Koto,Light Red Meranti, Limba, Louro, Maçaranduba, Mahogany,Makoré, Mandioqueira, Mansonia, Mengkulang, MerantiBakau, Merawan, Merbau, Merpauh, Mersawa, Moabi,Niangon, Nyatoh, Obeche, Okoumé, Onzabili, Orey,Ovengkol, Pzogp. Padauk, Paldao, Palissandre de Guatemala,Palissandre de Para, Palissandre de Rio, Palissandre de Rose,Pau Amarelo, Pau Marfim, Pulai, Punah, Quaruba, Ramin,Sapelli, Saqui-Saqui, Spetir, Sipo, Sucupira, Suren, Tauari,Teak, Tiama, Tola, Virola, White Lauan, White Meranti,White Seraya, Yellow Meranti
   247.9 - Woods in the rough/roughly squared, n.e.s.

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 2022 codes under subheading 8524 - Flat panel display modules, whether or not incorporating touch-sensitive screens

UNSD		EUROSTAT		Assigned Code
HS 2022	SITC Rev. 4	CN 2022	SITC Rev. 4	SITC Rev. 4
852411		8524 11 00	871.93	
852412		8524 12 00	871.93	
852419	764	8524 19 00	871.93	871.93
852491		8524 91 00	871.93	
852492		8524 92 00	871.93	
852499		8524 99 00	871.93	

HS 2022
Subheading 8524 - Flat panel display modules, whether or not incorporating touch-sensitive screens
    8524.11 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of liquid crystals, without drivers or control circuits
    8524.12 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of organic light-emitting diodes (OLED), without drivers or control circuits
    8524.19 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of other than liquid crystals or organic light-emitting diodes (OLED), without drivers or control circuits
    8524.91 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of liquid crystals, with drivers or control circuits
    8524.92 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of organic light-emitting diodes (OLED), with drivers or control circuits
    8524.99 - Flat panel display modules, whether or not incorporating touch-sensitive screens; of other than liquid crystals or organic light-emitting diodes (OLED), with drivers or control circuits

SITC Rev.4
764 - Telecommunications equipment, n.e.s., and parts, n.e.s., and accessories of apparatus falling within division 76
871 - Optical instruments and apparatus, n.e.s.
  871.9 - Liquid crystal devices, n.e.s.; lasers (other than laser diodes); other optical appliances and instruments, n.e.s.
    871.93 - Other optical devices, appliances & instruments

After comparing the conversions of UNSD to EUROSTAT, it was noted that flat panel display modules are converted to SITC 4 764 - Telecommunications equipment, n.e.s., and parts, n.e.s., and accessories of apparatus falling within division 76. However, it was determined that the scope of these new codes is better converted to SITC 4 871.93.

2) In this example, we compared the conversion of HS 2022 code 0403.20 to SITC Rev. 4 and further reviewed the product descriptions of the target SITC Rev. 4 codes.

UNSD		EUROSTAT	
HS 2022	**SITC Rev. 4**	**CN 2022**	**SITC Rev. 4**
040320	098	0403 20 11	02231
		0403 20 13	02231
		0403 20 19	02231
		0403 20 31	02231
		0403 20 33	02231
		0403 20 39	02231
		0403 20 41	02231
		0403 20 49	02231
		0403 20 51	02231
		0403 20 53	02231
		0403 20 59	02231
		0403 20 91	02231
		0403 20 93	02231
		0403 20 99	02231

> **HS 2022:**
> **0403** - Yogurt; buttermilk, curdled milk and cream, kephir and other fermented or acidified milk and cream, whether or not concentrated or containing added sugar or other sweetening matter or flavoured or containing added fruit, nuts or cocoa.
>> **0403.20** - Dairy produce; yoghurt, whether or not concentrated or containing added sugar or other sweetening matter or flavoured or containing added fruit, nuts or cocoa
>
> **SITC Rev. 4**
> **022** - Milk and cream and milk products other than butter or cheese
>> **022.3 -** Yogurt; buttermilk, curdled, fermented or acidified milk and cream; ice-cream
>>> **022.31 -** Yogurt, whether/not concentrated/containing added sugar/other sweetening matter/flavoured/containing added fruit, nuts/cocoa
> **098** - Edible products and preparations, n.e.s.

The new HS 2022 code 040320 reflects the expansion of heading 04.03 regarding yogurt. Therefore the largest trade share may not reflect the best conversion based on product description and scope. It is more appropriate to convert this code to SITC 4 022.31.

Annex 6. Subheadings that were re-used in HS 2022

Sub-heading codes that have not been used in the most recent two HS versions may be re-used in the current version but do not indicate that a relationship exists between the same sub-heading code across different versions.

The following are sub-heading codes that have been re-used in HS 2022. These codes were valid in HS 1996 and HS 2002 but not in HS 2007, HS 2012, and HS 2017. Please note that the scope and description in previous HS editions differ from those in HS 2022. As an example, HS 2022 Code 8485.10 is for additive manufacturing, whereas the same code in HS 1996 was for Ships' propellers and blades

> **HS 2022:**
>
> **0709.52 -** Vegetables; mushrooms of the genus Boletus, fresh or chilled
> **1515.60 -** Vegetable oils; microbial fats and oils and their fractions, whether or not refined, but not chemically modified
> **2930.10 -** Organo-sulphur compounds; 2-(N,N-Diethylamino) ethanethiol
> **4412.92 -** Plywood; n.e.c. in heading 4412, with at least one outer ply of non-coniferous wood
> **4418.30 -** Wood; posts and beams other than products of subheadings 4418.81 to 4418.89
> **8485.10 -** Machines for additive manufacturing; by metal deposit
> **8485.90 -** Machines for additive manufacturing; parts
> **8524.91 -** Flat panel display modules, whether or not incorporating touch-sensitive screens; of liquid crystals, with drivers or control circuits
> **8524.99 -** Flat panel display modules, whether or not incorporating touch-sensitive screens; of other than liquid crystals or organic light-emitting diodes (OLED), with drivers or control circuits
> **8543.40 -** Electrical machines and apparatus; electronic cigarettes and similar personal electric vaporising devices

The final decision on the conversion is as follows:

HS 2022	HS 2017
070952	070959
151560	151590
293010	293090
441292	441299
441830	441860
848510	846390
848590	847990
852491	851712
852499	851712
854340	854370