Complete TF CPC

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Description:

The trade module is divided in two submodules: **complete_tf_cpc** and **total_trade_CPC**. Each module is year specific. This means that, at the time being, the trade module run indipendently for each year. In order to run the **tt total_trade_CPC**, the output of **complete_tf_cpc** is needed.

Input Data

Supplementary Datasets:

1. `hsfclmap2`: Mmapping between HS and FCL codes extracted from MDB files used to archive information existing in the previous trade system (Shark, Jellyfish).
2. `adjustments`: Adjustment notes containing manually added conversion factors to obtain quantities from traded values
3. `unsdpartnersblocks`: UNSD Tariffline reporter and partner dimensions use different list of geographic are codes. The partner dimesion is more detailed than the reporter dimension. Since we can not split trade flows of the reporter dimension, trade flows of the corresponding partner dimensions have to be assigned the reporter dimension's geographic area code. For example, the code 842 is used for the United States includes Virgin Islands and Puerto Rico and thus the reported trade flows of those territories. Analogous steps are taken for France, Italy, Norway, Switzerland and US Minor Outlying Islands.
4. `fclunits`: For UNSD Tariffline units of measurement are converted to meet FAO standards. According to FAO standard, all weights are reported in metric tonnes, animals in heads or 1000 heads and for certain commodities, only the value is provided.
5. `comtradeunits`
6. `EURconversionUSD`: Annual EUR/USD currency exchange rates table from SWS

Extract UNSD Tariffline Data

1. Chapters: The module downloads only records of commodities of interest for Tariffline Data. The HS chapters are the following: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 33, 35, 38, 40, 41, 42, 43, 50, 51, 52, 53. In the future, if other commotidy are of interest for the division, it is important to include additional chapter in the first step of the downloading. For Eurostat Data no filtering is applied.
2. Remove duplicate values for which quantity & value & weight exist (in the process, removing redundant columns). Note: missing quantity|weight or value will be handled below by imputation
3. The tariffline data from UNSD contains multiple rows with identical combination of reporter / partner / commodity / flow / year / qunit. Those are separate registered transactions and the rows containinig non-missing values and quantities are summed.
4. Remove non-numeric comm (hs) code; comm (hs) code has to be digit. This probably should be part of the faoswsEnsure

Extract Eurostat Combined Nomenclature Data

1. Remove reporters with area codes that are not included in MDB commodity mapping area list
2. Convert HS to FCL

3. Remove unmapped FCL codes
4. Join *fclunits*
5. `NA` *fclunits* set to `mt`
6. Specific ES conversions: some FCL codes are reported in Eurostat with different supplementary units than those reported in FAOSTAT

Harmonization of UNSD Tariffline Data

1. Geographic Area: UNSD Tariffline data reports area code with Tariffline M49 standard (which are different for official M49). The area code is converted in FAO country code using a specific convertion table provided by Team ENV. Area codes not mapping to any FAO country code or mapping to code 252 (which correpond not defined area) are separately saved and removed from further analyses.
2. Commodity Codes: Commodity codes are reported in HS codes (Harmonized Commodity Description and Coding Systpem). The codes are converted in FCL (FAO Commodity List) codes. This step is performed using table incorporated in the SWS. In this step, all the mapping between HS and FCL code is stored. If a country is not included in the package of the mapping for that specific year, all the records for the reporting country are removed. All records without an FCL mapping are filtered out and saved in specific variables.