Agricultural trade data processing

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Raw trade data

FAO receives data on trade flows from United Nations Statistical Division. The division runs Commodity Trade Statistics Database UN Comtrade "It stores standardised official annual trade statistics reported by countries and reflecting international merchandise flows detailed by commodity and partner country with coverage reaching up to 99 percent of world merchandise trade¹".

One can freely download this standardised statistics from the open data base. Statistical Division of FAO gets unstandardised data.

Table 1: Random sample of import trade flows of 2011 year, reported by the US $\,$

year	reporter	partner	hs	flow	weight	qty	qunit	value
2011	842	380	5911320080	1	8108	28338	2	425438
2011	842	566	9801001045	1	NA	NA	1	5420112
2011	842	124	6214900090	1	53	46	11	18205
2011	842	276	3917290090	1	1315119	1315119	8	13703861
2011	842	704	9403200011	1	NA	145	5	81973
2011	842	156	6403996030	1	NA	580329	6	5123685
2011	842	492	6202110020	1	2	1	11	3319
2011	842	222	0713394050	1	9071	9071	8	24099
2011	842	440	9506994000	1	NA	1968	5	119039
2011	842	392	3824909290	1	9980267	9980267	8	79026402

This is an example of unstandardised data on trade inflows in 2011, reported by the United States. Reporters and trade partners are represented with three-digit numerical codes used by the Statistics Division of the United Nations. Trade commodities are classified with extended Harmonized Commodity Description and Coding System (HS)² maintained by the World Customs Organization³.

Weight is measured in kilograms and value in US dollars. Quantity (qty column) is an optional alternative for weight. It could be measured in different units (qunit column). See full list of possible units and their descriptions in Annex I of Quantity and Weight Data in UN Comtrade⁴.

Country-specific HS commodity codes

Harmonized system classification is declared by WCO up to 6 digits. A country may extend HS to more detailed level to better respond to local circumstances. Let's compare differencies in codes under subheading 0202 Meat of bovine animals, frozen between the US and Brazil.

 $^{{}^1{\}rm http://unstats.un.org/unsd/comtrade_announcement.htm~Comtrade~Announcement}$

²http://www.wcoomd.org/en/topics/nomenclature/overview/what-is-the-harmonized-system.aspx What is the Harmonized System (HS)?

³http://www.wcoomd.org/en.aspx World Customs Organization

 $^{^4}$ http://unstats.un.org/unsd/tradekb/Knowledgebase/Quantity-and-Weight-Data-in-UN-Comtrade Quantity and Weight Data in UN Comtrade

Table 2: Extension of HS codes by the US

hs	Description				
02	CHAPTER 2 MEAT AND EDIBLE MEAT OFFAL				
0202	Meat of bovine animals, frozen:				
0202.10	Carcases and half-carcases:				
0202.10.05	Described in general note 15 of the tariff schedule and entered pursuant to its provisions:				
0202.10.05.10	Veal				
0202.10.05.90	Other				
0202.10.10	Described in additional U.S. note 3 to this chapter and entered pursuant to its provisions:				
0202.10.10.10	Veal				
0202.10.10.90	Other				
0202.10.50	Other:				
0202.10.50.10	Veal				
0202.10.50.90	Other				
0202.20	Other cuts with bone in:				
	Described in general note 15 of the tariff schedule and entered pursuant to its provisions:				
	Processed:				
0202.20.02	High-quality beef cuts				
0202.20.04	Other				
0202.20.06	Other				
	Described in additional U.S. note 3 to this chapter and entered pursuant to its provisions:				
	Processed:				
0202.20.10	High-quality beef cuts				
0202.20.30	Other				
0202.20.50	Other				
0202.20.80	Other				
0202.30	Boneless:				
	Described in general note 15 of the tariff schedule and entered pursuant to its provisions:				
	Processed:				
0202.30.02	High-quality beef cuts				
0202.30.04	Other				
0202.30.06	Other				
	Described in additional U.S. note 3 to this chapter and entered pursuant to its provisions:				
	Processed:				
0202.30.10	High-quality beef cuts				
0202.30.30	Other				
0202.30.50	Other				
0202.30.80	Other				

Table 3: Extension of HS codes by Brazil

hs	Description
02	CHAPTER 2 MEAT AND EDIBLE MEAT OFFAL
0202	Meat of bovine animals, frozen:
0202.10	Carcases and half-carcases
0202.20	Other cuts with bone in:
0202.20.10	Forequarters
0202.20.20	Hindquarters
0202.20.90	Other
0202.30	Boneless

Validation of trade data

Detection of outliers

Imputing of missing quantities and replacement of outliers

Aggregation of trade data

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