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UNCTAD COMMODITY PRICE INDEX METHODOLOGICAL NOTE

Introduction

This document outlines the methodological background to the UNCTAD commodity price index. Several methodological revisions have been introduced in the 2015=100 series. In summary these were:

- ◇ Re-basing the index, with a corresponding revision of the weights, from the year 2000 to the year 2015.
- ◇ Enhancement of product coverage; and
- ◇ Introduction of new sub-indices.

The remainder of the document details the different compilation steps in the order below:

1. Definition: Primary commodities;
2. Basket determination;
3. Weights selection;
4. Price selection; and
5. Index calculation.

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1 Definition: Primary commodities

The UNCTAD commodity price index (UCPI) is designed to measure the price movements of primary commodities exported by developing economies. There is no single, universal definition of primary commodities in terms of standard statistical (product) classifications. The current methodology continues to use the same concept of primary commodity adopted by previous series of the UCPI. Thus, the definition of primary commodity adopted by the UCPI takes into account the definition provided by the United Nations Statistics Division's (UNSD) documents on technology intensiveness (UNSD, 2009), as well as in the Broad Economic Categories (BEC) classification (UNSD, 2016). Particular attention has been attributed to the definition used in BEC:

"Primary goods are those which characteristically are products of primary sectors of the economy – i.e., farming, forestry, fishing, and the extractive industries. However, goods which characteristically are products of other sectors, such as manufacturing, where the product underwent only a minor change, are still classified as "primary" in cases where nearly all of the value of the product is contributed by one of the primary sectors of the economy. For example, cotton undergoes physical transformation when ginned, but as most of the value of the ginned cotton derives from the agricultural sector, it is classified, in the BEC, as a primary good. Thus, a good is classified as primary if it is a product of farm, forest and fishing, or of an extractive industry, to whose value transformation has made only a minor contribution. Guidance in classifying goods as primary or processed can further be sought in the description of and explanation associated with the HS sub-headings, which uses wording such as "raw", "in the rough", "in primary form" or "combed but not otherwise processed". Waste and scrap materials are also classified as primary commodities in the BEC."

For the compilation of the UCPI, primary commodities are defined as goods where all, or almost all, of the value-added during production has been generated by the primary sectors of the economy i.e. primary commodities are largely unprocessed or unrefined. To conceptualize that definition in terms of the Harmonized Commodity Description and Coding System (HS) 2007 (UNSD, 2017), HS headings (as identified by the 4-digit codes of the HS classification) are classified into primary commodities and other types of products. The headings classified as primary commodities are presented in Table A1 in the Annex. They form the universe from which individual commodities were selected for the basket.

2 The basket

From the universe of primary commodities described in Section 1, a set of representative commodities were selected for the basket. The selection is designed to ensure the best possible representation of primary commodities exported by developing economies and to take into account some specific requirements identified during user consultations. Commodities with unreliable data availability or where no price data were available were excluded from the index. In these cases their weights were also excluded. The selected commodities (referred to as "index commodity items") are detailed in Table 1. The corresponding HS sub-headings (identified by 6-digit codes) from which they have been constructed are shown in Table A2 in the Annex.

The basket of primary commodities for the overall price index is subdivided into four groups, with most groups further subdivided into subgroups (see Table 1).

Table 1. Weighting structure of the basket, subgroups and groups

Group	Subgroup	Index commodity item	Weights as a percentage of			
			Subgroup	Group	Total	
All food	Food	Wheat	2.82	1.48	0.20	
		Maize	12.81	6.74	0.89	
		Rice	15.43	8.11	1.08	
		Sugar	23.38	12.29	1.63	
		Bovine meat	13.96	7.34	0.97	
		Bananas	9.34	4.91	0.65	
		Pepper	3.49	1.84	0.24	
		Soybean meal	0.09	0.05	0.01	
		Crustaceans*	15.46	8.13	1.08	
		Fish*	3.21	1.69	0.22	
	<i>Total subgroup</i>			<i>100.00</i>	<i>52.58</i>	<i>6.97</i>
	Tropical beverages	Coffee	63.69	10.95	1.45	
		Cocoa beans	21.28	3.66	0.49	
		Tea	15.03	2.58	0.34	
	<i>Total subgroup</i>			<i>100.00</i>	<i>17.20</i>	<i>2.28</i>
	Vegetable oilseeds and oils	Soybeans	63.04	19.05	2.53	
		Soya bean oil	12.38	3.74	0.50	
		Sunflower oil	1.07	0.32	0.04	
		Ground-nut oil	0.47	0.14	0.02	
		Copra	0.16	0.05	0.01	
		Coconut oil	2.94	0.89	0.12	
		Palm kernel oil	2.04	0.62	0.08	
		Palm oil	17.90	5.41	0.72	
<i>Total subgroup</i>			<i>100.00</i>	<i>30.22</i>	<i>4.01</i>	
Total group				100.00	13.26	

Group	Subgroup	Index commodity item	Weights as a percentage of		
			Subgroup	Sub-group	Sub-group
Agricultural raw materials		Fish meal fodder*		6.22	0.23
		Tobacco		14.93	0.55
		Cotton		8.61	0.32
		Wool, fine		2.18	0.08
		Jute		0.19	0.01
		Hides and skins		8.26	0.30
		Tropical logs		1.73	0.06
		Tropical sawnwood*		2.81	0.10
		Plywood*		25.26	0.93
		Rubber		29.81	1.10
		Total group		100.00	3.69
Minerals, ores and metals	Minerals, ores and non-precious metals	Phosphate rock	2.07	0.91	0.19
		Manganese ore	1.69	0.74	0.16
		Iron ore	26.18	11.55	2.45
		Aluminium	11.69	5.16	1.09
		Copper	38.34	16.92	3.59
		Nickel	6.15	2.71	0.58
		Lead	4.58	2.02	0.43
		Zinc	5.62	2.48	0.53
		Tin	3.69	1.63	0.35
		<i>Total subgroup</i>	<i>100.0</i>	<i>44.14</i>	<i>9.36</i>
	Precious metals*	Gold*	88.03	49.17	10.43
		Silver*	7.66	4.28	0.91
		Platinum*	4.31	2.41	0.51
		<i>Total subgroup</i>	<i>100.00</i>	<i>55.86</i>	<i>11.84</i>
	Total group		100.00	21.10	
Fuels*	Gas	Natural gas*		19.52	12.07
	Coal	Coal*		3.88	2.40
	Petroleum	Crude petroleum*		76.61	47.38
		Total group		100.00	61.85
Price index - all groups					100.00

* Index commodity item not previously covered in the UCPI.

The composition of the basket was updated in a number of important respects. Several index commodity items, such as crustaceans, fish, fish meal fodder, tropical sawnwood, plywood were added to the basket. In addition, a new sub-group 'Precious Metals' and a new group 'Fuels' were added to the basket. These commodities have been included in recognition of their growing importance to the developing economies commodity exports.

Total exports of primary commodities from developing economies included in the UCPI basket (valued in current United States dollars), expressed as a percentage of corresponding total exports of primary commodities from developing economies (as defined in Table A1 in the Annex) are presented in Table 2, broken down by product group. Data are averaged over the period 2014 - 2016.

Table 2. Coverage of index's primary commodities within total of corresponding (sub) group

Group	Subgroup	Coverage (%)
All food		34.36
	Food	24.17
	Tropical beverages	86.18
	Vegetable oilseeds and oils	56.44
Agricultural raw materials		46.07
Minerals, ores and metals		58.05
	Minerals, ores and non-precious metals	47.98
	Precious metals	69.59
Fuels ¹		73.50
	Gas	98.73
	Coal	93.83
	Petroleum	69.77
Total		59.78

¹ This group is broader than the listed subgroups: other fuels are not covered with the three subgroups (refer to Table A1).

Source: UNCTAD calculations based on Comtrade data (UNSD, 2018).

3 Weights

The weights used in the calculation of the UCPI determine the degree to which the price movements of the different commodities influence the movement of the overall index and sub-indices. By construction, they represent the share of the trade value of exports of each commodity in the basket, originating from developing economies during the base period (see Formula 1 in Section 5).

These export weights are derived from export trade data sourced from the UNSD Comtrade database (UNSD, 2018a). The weights were calculated at HS 2007 6-digit level, and then aggregated to index commodity items (see Table A2 in the Annex). As not all economies report their export values in HS 2007, data reported in other versions of HS were converted to HS 2007 using HS classification concordance matrices provided by UNSD (2018b).

The base year of the index is 2015. However, to ensure the weights are stable and don't reflect short-term fluctuations in exports, they were calculated using a three-year average, for the years around the base year i.e. 2014 - 2016. The weighting structure of the UCPI and its sub-indices is shown in Table 1 - Section 2.

4 Prices

The average prices for the commodity items used in the index are derived from a representative sample of monthly, weekly or daily spot-market quotations. These prices are collected from a variety of sources. Price quotations may be collected in a variety of currencies. Any prices not denominated in United States dollars are converted to United States dollars (see Table A3 in the Annex). Most of the absolute prices used in the calculation of the index are published separately in the table 'Commodity prices' which is available on UNCTADStat. Unfortunately, not all series can be published owing to source data copy right restrictions. Furthermore, other absolute commodity prices, not used in the compilation of the index are also published in this table.

5 Index calculation

As with the previous index, the new UCPI is calculated using a fixed-base Laspeyres index. The formula for the calculation of the index is:

$$(1) \quad L_{t,0} = \frac{\sum_{i=1}^n p_{i,t} q_{i,0}}{\sum_{i=1}^n p_{i,0} q_{i,0}} = \sum_{i=1}^n \frac{p_i^t}{p_i^0} s_i^0,$$

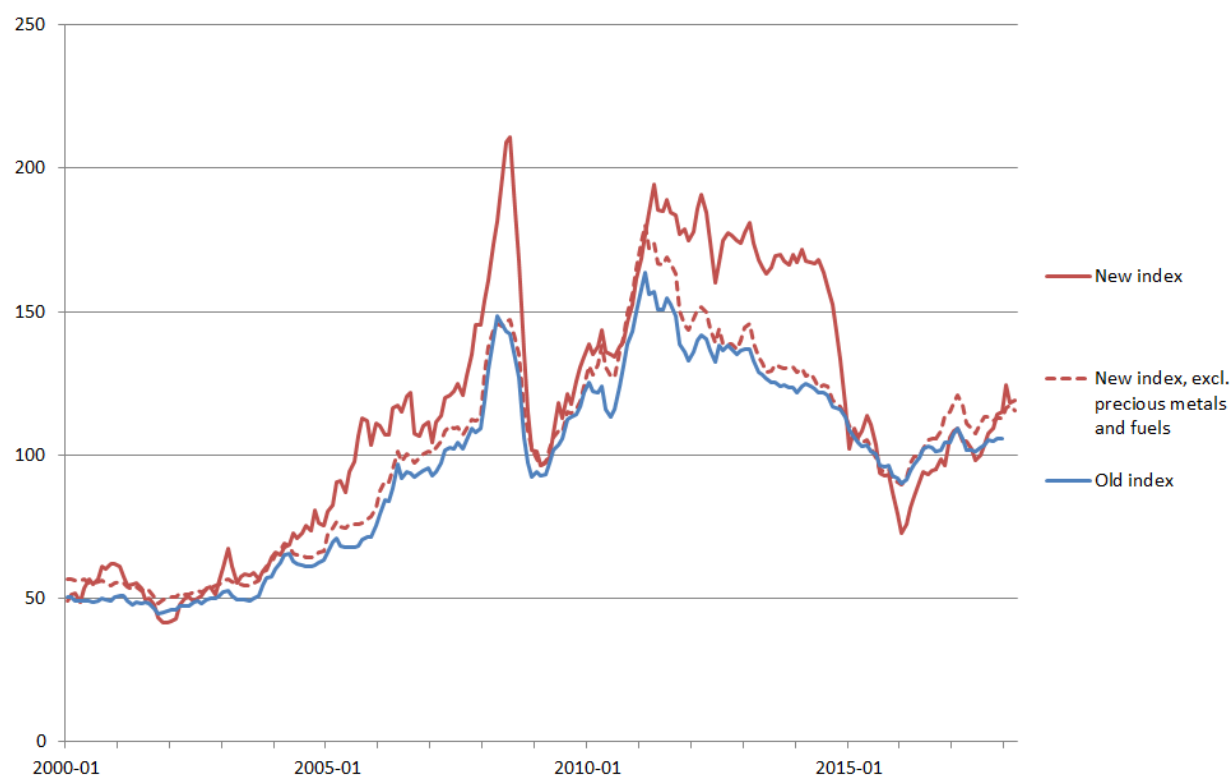
where s_i^0 represents the weight of the commodity index item i (see Section 3 above) and p_i^t is the price in period t (see Section 4 above). q_i^0 is the quantity of the commodity index item i in the base period.

6 Results

Figure 1 depicts the evolution of the revised and updated UCPI compared with the previous series (rescaled to 2015=100) for the period January 2000 to December 2017. Figure 1 also depicts the evolution of the new UCPI calculated for all primary commodities excluding precious metals and fuels.

Figure 1 shows that the inclusion of precious metals and fuels is the primary cause of differences between the two time series. By contrast, the evolution of the new index excluding precious metals and fuels is very similar to that of the old index.

Figure 1. New and previous commodity price indices (2015=100)



7 References

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UNSD (2018a). *UN Comtrade database*. United Nations Statistics Division, New York. Available at <https://comtrade.un.org/>

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Annex

Table A1: Primary commodities by groups and subgroups of the index

Group	Subgroup	HS 2007 headings
All food	Food	0101, 0102, 0103, 0104, 0105, 0106, 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0208, 0210, 0301, 0302, 0303, 0304, 0305, 0306, 0307, 0401, 0402, 0403, 0404, 0405, 0406, 0407, 0408, 0409, 0410, 0701, 0702, 0703, 0704, 0705, 0706, 0707, 0708, 0709, 0710, 0711, 0712, 0713, 0714, 0801, 0802, 0803, 0804, 0805, 0806, 0807, 0808, 0809, 0810, 0811, 0812, 0813, 0814, 0903, 0904, 0905, 0906, 0907, 0908, 0909, 0910, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1210, 1212, 1213, 1214, 1517, 1601, 1602, 1603, 1604, 1605, 1701, 1702, 1703, 1704, 1806, 1901, 1902, 1903, 1904, 1905, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2101, 2102, 2103, 2104, 2105, 2106, 2201, 2202, 2203, 2204, 2205, 2206, 2208, 2209
	Tropical beverages	0901, 0902, 1801, 1802, 1803, 1804, 1805
	Vegetable oilseeds and oils	0209, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1518, 1521, 1522
Agricultural raw materials		0501, 0502, 0504, 0505, 0506, 0507, 0508, 0510, 0511, 0601, 0602, 0603, 0604, 1209, 1211, 1301, 1302, 1401, 1404, 2401, 2402, 2403, 4001, 4002, 4003, 4004, 4101, 4102, 4103, 4115, 4301, 4401, 4402, 4403, 4406, 4407, 4409, 4412, 4501, 4502, 4701, 4702, 4703, 4704, 705, 4706, 4707, 5001, 5002, 5003, 5101, 5102, 5103, 5104, 5105, 5201, 5202, 5203, 5301, 5302, 5303, 5305
Minerals, ores and metals	Minerals, ores and non-precious metals	2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2524, 2525, 2526, 2528, 2529, 2530, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2617, 2618, 2619, 2620, 2621, 2714, 2818, 3101, 3102, 3103, 3104, 3105, 7204*, 7401, 7402, 7403, 7404, 7405, 7406, 7407, 7408, 7409, 7410, 7411, 7412, 7501, 7502, 7503, 7504, 7505, 7506, 7507, 7601, 7602, 7603, 7604, 7605, 7606, 7607, 7608, 7609, 7801, 7802, 7804, 7901, 7902, 7903, 7904, 7905, 8001, 8002, 8003, 8101, 8102, 8103, 8104, 8105, 8106, 8107, 8108, 8109, 8110, 8111, 8112, 8113
	Precious metals	2616, 7102, 7103, 7105, 7106, 7107, 7108, 7109, 7110, 7111, 7112
Fuels	Gas	2711
	Coal	2701, 2702
	Petroleum	2709, 2710
	Other fuels	2703, 2704, 2705, 2706, 2707, 2708, 2712, 2713, 2715

* Only 7204.49 (Ferrous waste) is included, as other subheadings refer to non-primary commodities waste.

Table A2. List of included commodities in the basket of the price index

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
All food	Food	Wheat	Durum wheat	100110
All food	Food	Wheat	Wheat other than durum wheat; meslin	100190
All food	Food	Maize	Maize (corn), seed	100510
All food	Food	Maize	Maize (corn), other than seed	100590
All food	Food	Rice	Rice in the husk (paddy/rough)	100610
All food	Food	Rice	Husked (brown) rice	100620
All food	Food	Rice	Semi-milled/wholly milled rice, whether/not polished/glazed	100630
All food	Food	Rice	Broken rice	100640
All food	Food	Sugar	Cane sugar, raw, in solid form, not containing added flavouring/colouring matter	170111
All food	Food	Sugar	Beet sugar, raw, in solid form, not containing added flavouring/colouring matter	170112
All food	Food	Sugar	Cane/beet sugar & chemically pure sucrose, in solid form, containing added flavouring/colouring matter	170191
All food	Food	Sugar	Cane/beet sugar & chemically pure sucrose, in solid form, not containing added flavouring/colouring matter	170199
All food	Food	Bovine meat	Carcasses/half-carcasses of bovine animals, fresh/chilled	020110
All food	Food	Bovine meat	Meat of bovine animals, fresh/chilled (excl. Of 0201.10), bone-in	020120
All food	Food	Bovine meat	Meat of bovine animals, fresh/chilled, boneless	020130
All food	Food	Bovine meat	Carcasses/half-carcasses of bovine animals, frozen	020210
All food	Food	Bovine meat	Meat of bovine animals, frozen (excl. Of 0202.10), bone-in	020220
All food	Food	Bovine meat	Meat of bovine animals, frozen, boneless	020230
All food	Food	Bananas	Bananas, including plantains, fresh or dried.	080300
All food	Food	Pepper	Pepper (genus piper), neither crushed/ground	090411
All food	Food	Pepper	Pepper (genus piper), crushed/ground	090412
All food	Food	Pepper	Fruits of the genera capsicum/pimenta, dried/crushed/ground	090420
All food	Food	Soybean meal	Flours & meals of soya beans	120810
All food	Food	Fish meal - edible	Flours, meals & pellets of fish, fit for human consumption	030510
All food	Food	Fish	Trout (<i>salmo trutta</i> , <i>oncorhynchus mykiss/clarki/aguabonita/gilae/apache/chrysogaster</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030211
All food	Food	Fish	Pacific salmon/atlantic salmon/danube salmon [see list of conventions for species incld.], fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030212

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
All food	Food	Fish	Salmonidae (excl. Of 0302.11 & 0302.12; excl. Fillets/other fish meat of 03.04/livers & roes), fresh/chilled	030219
All food	Food	Fish	Halibut (<i>reinhardtius hippoglossoides</i> , <i>hippoglossus hippoglossus/stenolepis</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030221
All food	Food	Fish	Plaice (<i>pleuronectes platessa</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030222
All food	Food	Fish	Sole (<i>solea</i> spp.), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030223
All food	Food	Fish	Flat fish (excl. Of 0302.21-0302.23) [see list of conventions for species incld.], fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030229
All food	Food	Fish	Albacore/longfinned tunas (<i>thunnus alalunga</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030231
All food	Food	Fish	Yellowfin tunas (<i>thunnus albacares</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030232
All food	Food	Fish	Skipjack/stripe-bellied bonito (<i>euthynnus (katsuwonus) pelamis</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030233
All food	Food	Fish	Bigeye tunas (<i>thunnus obesus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030234
All food	Food	Fish	Bluefin tunas (<i>thunnus thynnus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030235
All food	Food	Fish	Southern bluefin tunas (<i>thunnus maccoyii</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030236
All food	Food	Fish	Tunas, skipjack & bonito (excl. Of 0302.31-0302.36), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030239
All food	Food	Fish	Herrings (<i>clupea harengus/pallasii</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030240
All food	Food	Fish	Cod (<i>gadus morhua/ogac/macrocephalus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030250
All food	Food	Fish	Sardines (<i>sardina pilchardus</i> , <i>sardinops</i> spp.)/sardinella (<i>sardinella</i> spp.)/brisling/sprats (<i>sprattus sprattus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers/roes)	030261
All food	Food	Fish	Haddock (<i>melanogrammus aeglefinus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030262
All food	Food	Fish	Coalfish (<i>pollachius virens</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030263
All food	Food	Fish	Mackerel (<i>scomber scombrus/australasicus/japonicus</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030264
All food	Food	Fish	Dogfish & other sharks, fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030265
All food	Food	Fish	Eels (<i>anguilla</i> spp.), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030266
All food	Food	Fish	Swordfish (<i>xiphias gladius</i>), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030267
All food	Food	Fish	Toothfish (<i>dissostichus</i> spp.), fresh/chilled (excl. Fillets/other fish meat of 03.04/livers & roes)	030268
All food	Food	Fish	Fish,n.e.s. In 03.02, fresh/chilled(excl. Fillets/other fish meat of 03.04/livers & roes).	030269

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
All food	Food	Crustaceans	Rock lobster & other sea crawfish (<i>palinurus</i> spp., <i>panulirus</i> spp., <i>jasus</i> spp.), whether/not in shell, frozen	030611
All food	Food	Crustaceans	Lobsters (<i>homarus</i> spp.), whether/not in shell, frozen	030612
All food	Food	Crustaceans	Shrimps & prawns, whether/not in shell, frozen	030613
All food	Food	Crustaceans	Crabs, whether/not in shell, frozen	030614
All food	Food	Crustaceans	Rock lobster & other sea crawfish (<i>palinurus</i> spp., <i>panulirus</i> spp., <i>jasus</i> spp.), whether/not in shell, other than frozen	030621
All food	Food	Crustaceans	Lobsters (<i>homarus</i> spp.), whether/not in shell, other than frozen	030622
All food	Food	Crustaceans	Shrimps & prawns, whether/not in shell, other than frozen	030623
All food	Food	Crustaceans	Crabs, whether/not in shell, other than frozen	030624
All food	Food	Crustaceans	Crustaceans, other than frozen (excl. Of 0306.21-0306.24); flours/meals/pellets of crustaceans, fit for human consumption, other than frozen	030629
All food	Tropical beverages	Coffee	Coffee, not roasted, not decaffeinated	090111
All food	Tropical beverages	Coffee	Coffee, not roasted, decaffeinated	090112
All food	Tropical beverages	Coffee	Coffee, roasted, not decaffeinated	090121
All food	Tropical beverages	Coffee	Coffee, roasted, decaffeinated	090122
All food	Tropical beverages	Coffee	Coffee husks & skins; coffee substitutes containing coffee in any proportion	090190
All food	Tropical beverages	Cocoa beans	Cocoa beans, whole or broken, raw or roasted.	180100
All food	Tropical beverages	Cocoa beans	Cocoa shells, husks, skins and other cocoa waste.	180200
All food	Tropical beverages	Tea	Tea, green (not fermented), whether/not flavoured, in immediate packings of a content not >3kg	090210
All food	Tropical beverages	Tea	Tea, green (not fermented), whether/not flavoured, in immediate packings of a content >3kg	090220
All food	Tropical beverages	Tea	Tea, black (fermented) & partly fermented tea, whether/not flavoured, in immediate packings of a content not >3kg	090230
All food	Tropical beverages	Tea	Tea, black (fermented) & partly fermented tea, whether/not flavoured, in immediate packings of a content >3kg	090240
All food	Vegetable oilseeds and oils	Soybeans	Soybeans	120100
All food	Vegetable oilseeds and oils	Soya bean oil	Soya bean oil, crude, whether/not degummed, not chemically modified	150710
All food	Vegetable oilseeds and oils	Sunflower oil	Sunflower seed/safflower oil, crude	151211
All food	Vegetable oilseeds and oils	Ground-nut oil	Ground-nut oil, crude	150810

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
All food	Vegetable oilseeds and oils	Copra	Copra	120300
All food	Vegetable oilseeds and oils	Coconut oil	Coconut (copra) oil, crude	151311
All food	Vegetable oilseeds and oils	Palm kernel oil	Palm kernel/babassu oil, crude	151321
All food	Vegetable oilseeds and oils	Palm oil	Palm oil, crude	151110
Agricultural raw materials	Agricultural raw materials	Fish meal fodder	Flours, meals & pellets of fish/of crustaceans, molluscs/other aquatic invertebrates	230120
Agricultural raw materials	Agricultural raw materials	Tobacco	Tobacco, not stemmed/stripped	240110
Agricultural raw materials	Agricultural raw materials	Tobacco	Tobacco, partly/wholly stemmed/stripped	240120
Agricultural raw materials	Agricultural raw materials	Tobacco	Tobacco refuse	240130
Agricultural raw materials	Agricultural raw materials	Cotton	Cotton, not carded/combed	520100
Agricultural raw materials	Agricultural raw materials	Cotton	Yarn waste (incl. Thread waste), of cotton	520210
Agricultural raw materials	Agricultural raw materials	Cotton	Garnetted stock of cotton	520291
Agricultural raw materials	Agricultural raw materials	Cotton	Cotton waste other than yarn waste (incl. Thread waste) & garnetted stock	520299
Agricultural raw materials	Agricultural raw materials	Cotton	Cotton, carded/combed	520300
Agricultural raw materials	Agricultural raw materials	Cotton	Cotton linters	140420
Agricultural raw materials	Agricultural raw materials	Wool	Wool, not carded/combed, greasy, incl. Fleece-washed wool, shorn	510111
Agricultural raw materials	Agricultural raw materials	Wool	Wool, not carded/combed, greasy, incl. Fleece-washed wool, other than shorn	510119
Agricultural raw materials	Agricultural raw materials	Wool	Wool, not carded/combed, degreased, not carbonised, shorn	510121
Agricultural raw materials	Agricultural raw materials	Wool	Wool, not carded/combed, degreased, not carbonised, other than shorn	510129
Agricultural raw materials	Agricultural raw materials	Wool	Wool, not carded/combed, carbonised	510130

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
Agricultural raw materials	Agricultural raw materials	Wool	Fine animal hair, not carded/combed, of kashmir (cashmere) goats	510211
Agricultural raw materials	Agricultural raw materials	Wool	Fine animal hair, not carded/combed, other than of kashmir (cashmere) goats	510219
Agricultural raw materials	Agricultural raw materials	Wool	Coarse animal hair, not carded/combed	510220
Agricultural raw materials	Agricultural raw materials	Wool	Noils of wool/fine animal hair	510310
Agricultural raw materials	Agricultural raw materials	Wool	Waste of wool/of fine animal hair, incl. Yarn waste but excl. Garnetted stock, other than noils of wool/fine animal hair	510320
Agricultural raw materials	Agricultural raw materials	Wool	Waste of coarse animal hair	510330
Agricultural raw materials	Agricultural raw materials	Jute	Jute & other textile bast fibres, raw/retted	530310
Agricultural raw materials	Agricultural raw materials	Jute	Jute & other textile bast fibres (excl. Flax, true hemp & ramie), raw/processed but not spun (excl. Of 5303.10); tow & waste of these fibres (incl. Yarn waste & garnetted stock)	530390
Agricultural raw materials	Agricultural raw materials	Hides and skins	Whole bovine (incl. Buffalo)/equine hides & skins, weight per skin not >8kg (simply dried)/10kg (dry-salted)/16kg (fresh/wet-salted/othw. Preserved)	410120
Agricultural raw materials	Agricultural raw materials	Hides and skins	Whole bovine (incl. Buffalo)/equine hides & skins, weight >16kg(fresh/salted/dried/limed/pickled/othw. Preserved but not tanned/parchment-dressed/further prepared), whether/not dehaired/split	410150
Agricultural raw materials	Agricultural raw materials	Hides and skins	Raw hides & skins of bovine (including buffalo)/equine animals (fresh/salted/dried/limed/pickled/othw. Preserved, but not tanned/parchment-dressed/further prepared), whether/not dehaired/split(excl. Of 4101.20&4101.50)	410190
Agricultural raw materials	Agricultural raw materials	Hides and skins	Tanned/crust hides & skins of bovine (incl. Buffalo)/equine animals, without hair on, in the wet state (incl. Wet-blue), full grains, unsplit; grain splits but not further prepared	410411
Agricultural raw materials	Agricultural raw materials	Hides and skins	Tanned/crust hides & skins of bovine (incl. Buffalo)/equine animals, without hair on, in the wet state (incl. Wet-blue), whether/not split but not further prepared (excl. Of 4104.11)	410419
Agricultural raw materials	Agricultural raw materials	Hides and skins	Tanned/crust hides & skins of bovine (incl. Buffalo)/equine animals, without hair on, in the dry state (crust), full grains, unsplit; grain splits but not further prepared	410441
Agricultural raw materials	Agricultural raw materials	Hides and skins	Tanned/crust hides & skins of bovine (incl. Buffalo)/equine animals, without hair on, in the dry state (crust), whether/not split but not further prepared (excl. Of 4104.41)	410449
Agricultural raw materials	Agricultural raw materials	Tropical logs	Dark red meranti, light red meranti & meranti bakau, in the rough, whether/not stripped of bark/sapwood/roughly squared	440341
Agricultural raw materials	Agricultural raw materials	Tropical logs	Tropical wood spec. In sh note 1 to ch.44 (excl. Of 4403.41), in the rough, whether/not stripped of bark/sapwood/roughly squared	440349
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped lengthwise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of mahogany (swietenia spp.)	440721

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped lengthwise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of virola, imbuia&balsa	440722
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped length wise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of dark red meranti, light red meranti & meranti bakau	440725
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped length wise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of white lauan, white meranti, white seraya, yellow meranti & alan	440726
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped lengthwise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of sapelli	440727
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped lengthwise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of iroko	440728
Agricultural raw materials	Agricultural raw materials	Tropical sawnwood	Wood sawn/chipped lengthwise, sliced/peeled, whether/not planed, sanded/end-jointed, of a thickness >6mm, of tropical wood specified in subheading note 1 to this ch. (excl. Of 4407.21-4407.28)	440729
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, veneered panels&similar laminated wood, of bamboo	441210
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, consisting solely of sheets of wood (other than bamboo), each ply not> 6 mm thkns, with at least one outer ply of tropical wood specified in subheading note 1 to this ch.	441231
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, consisting solely of sheets of wood (other than bamboo), each ply not> 6 mm thkns, with at least one outer ply of non-coniferous wood	441232
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, consisting solely of sheets of wood (other than bamboo,excl. Of 4412.31 &4412.32), each ply not> 6 mm thkns	441239
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, veneered panels&similar laminated wood, of blockboard, laminboard&battenboard	441294
Agricultural raw materials	Agricultural raw materials	Plywood	Plywood, veneered panels&similar laminated wood, n.e.s.(excl. Of 4412.10-4412.94)	441299
Agricultural raw materials	Agricultural raw materials	Rubber	Natural rubber latex, whether/not pre-vulcanised	400110
Agricultural raw materials	Agricultural raw materials	Rubber	Natural rubber (excl. Latex), in smoked sheets	400121
Agricultural raw materials	Agricultural raw materials	Rubber	Technically spec. Natural rubber (tsnr)	400122
Agricultural raw materials	Agricultural raw materials	Rubber	Natural rubber other than latex/smoked sheets/technically spec. Natural rubber	400129
Minerals, ores and metals	Minerals, ores and non-precious metals	Phosphate rock	Natural calcium phosphates, natural aluminium calcium phosphates & phosphatic chalk, unground	251010
Minerals, ores and metals	Minerals, ores and non-precious metals	Phosphate rock	Natural calcium phosphates, natural aluminium calcium phosphates & phosphatic chalk, ground	251020
Minerals, ores and metals	Minerals, ores and non-precious metals	Manganese ore	Manganese ores and concentrates	260200

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
Minerals, ores and metals	Minerals, ores and non-precious metals	Iron ore	Iron ores & concentrates (excl. Roasted iron pyrites), non-agglomerated	260111
Minerals, ores and metals	Minerals, ores and non-precious metals	Iron ore	Iron ores & concentrates (excl. Roasted iron pyrites), agglomerated	260112
Minerals, ores and metals	Minerals, ores and non-precious metals	Iron ore	Ferrous waste & scrap (excl. Of 7204.10-7204.41)	720449
Minerals, ores and metals	Minerals, ores and non-precious metals	Aluminium	Aluminium ores and concentrates	260600
Minerals, ores and metals	Minerals, ores and non-precious metals	Aluminium	Aluminium oxide (excl. Artificial corundum)	281820
Minerals, ores and metals	Minerals, ores and non-precious metals	Aluminium	Aluminium hydroxide	281830
Minerals, ores and metals	Minerals, ores and non-precious metals	Aluminium	Aluminium, not alloyed, unwrought	760110
Minerals, ores and metals	Minerals, ores and non-precious metals	Aluminium	Aluminium waste & scrap	760200
Minerals, ores and metals	Minerals, ores and non-precious metals	Copper	Copper ores and concentrates	260300
Minerals, ores and metals	Minerals, ores and non-precious metals	Copper	Copper mattes; cement copper (precipitated copper).	740100
Minerals, ores and metals	Minerals, ores and non-precious metals	Copper	Unrefined copper; copper anodes for electrolytic refining	740200
Minerals, ores and metals	Minerals, ores and non-precious metals	Copper	Copper waste & scrap	740400
Minerals, ores and metals	Minerals, ores and non-precious metals	Nickel	Nickel ores and concentrates	260400
Minerals, ores and metals	Minerals, ores and non-precious metals	Nickel	Nickel mattes	750110
Minerals, ores and metals	Minerals, ores and non-precious metals	Nickel	Nickel, not alloyed, unwrought	750210
Minerals, ores and metals	Minerals, ores and non-precious metals	Nickel	Nickel waste & scrap	750300
Minerals, ores and metals	Minerals, ores and non-precious metals	Lead	Lead ores and concentrates	260700
Minerals, ores and metals	Minerals, ores and non-precious metals	Lead	Unwrought lead, refined	780110
Minerals, ores and metals	Minerals, ores and non-precious metals	Lead	Unwrought lead other than refined, containing by weight antimony as the principal other element	780191

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
Minerals, ores and metals	Minerals, ores and non-precious metals	Lead	Unwrought lead other than refined, n.e.s. In 78.01	780199
Minerals, ores and metals	Minerals, ores and non-precious metals	Lead	Lead waste and scrap.	780200
Minerals, ores and metals	Minerals, ores and non-precious metals	Zinc	Zinc ores and concentrates	260800
Minerals, ores and metals	Minerals, ores and non-precious metals	Zinc	Zinc, not alloyed, unwrought, containing by weight 99.99%/more of zinc	790111
Minerals, ores and metals	Minerals, ores and non-precious metals	Zinc	Zinc, not alloyed, unwrought, containing by weight <99.99% of zinc	790112
Minerals, ores and metals	Minerals, ores and non-precious metals	Zinc	Zinc waste and scrap.	790200
Minerals, ores and metals	Minerals, ores and non-precious metals	Tin	Tin ores and concentrates	260900
Minerals, ores and metals	Minerals, ores and non-precious metals	Tin	Tin, not alloyed, unwrought	800110
Minerals, ores and metals	Minerals, ores and non-precious metals	Tin	Tin waste & scrap	800200
Minerals, ores and metals	Precious metals	Gold	Gold (incl. Gold plated with platinum), non-monetary, in powder form	710811
Minerals, ores and metals	Precious metals	Gold	Gold (incl. Gold plated with platinum), in unwrought forms (excl. Powder)	710812
Minerals, ores and metals	Precious metals	Gold	Gold (incl. Gold plated with platinum), non-monetary, in semi-manufactured forms	710813
Minerals, ores and metals	Precious metals	Silver	Silver ores & concentrates	261610
Minerals, ores and metals	Precious metals	Silver	Silver (incl. Silver plated with gold/platinum), in powder form	710610
Minerals, ores and metals	Precious metals	Silver	Silver (incl. Silver plated with gold/platinum), unwrought	710691
Minerals, ores and metals	Precious metals	Silver	Silver (incl. Silver plated with gold/platinum), in semi-manufactured forms	710692
Minerals, ores and metals	Precious metals	Platinum	Platinum, unwrought/in powder form	711011
Minerals, ores and metals	Precious metals	Platinum	Platinum, in semi-manufactured forms	711019
Fuels	Gas	Natural gas	Natural gas, liquefied	271111
Fuels	Gas	Natural gas	Propane, liquefied	271112

Group	Subgroup	Index commodity item	Commodity description	HS 2007 code
Fuels	Gas	Natural gas	Butanes, liquefied	271113
Fuels	Gas	Natural gas	Natural gas, in gaseous state	271121
Fuels	Coal	Coal	Anthracite coal, whether/not pulverised but not agglomerated	270111
Fuels	Coal	Coal	Bituminous coal, whether/not pulverised but not agglomerated	270112
Fuels	Coal	Coal	Coal other than anthracite & bituminous, whether/not pulverised but not agglomerated	270119
Fuels	Petroleum	Crude petroleum	Petroleum oils and oils obtained from bituminous minerals, crude.	270900

Table A3. Price quotations used, and their sources

Commodity description	Database code	Source
Aluminium, primary, high grade, LME, cash (\$/t)	260600.01	Metal Bulletin Limited
Bananas, Central and South America, FOT, US import price (\$/kg)	080300.01	World Bank - Commodity-markets
Beef, Australia/New Zealand, frozen, CIF US ports (\$/kg)	020100.01	World Bank - Commodity-markets
Cattle hides, heavy native steer, plant value, FOB (\$/piece)	410100.02	Harland M. Braun & Co.
Cattle hides, US Chicago packer's heavy native steers, FOB shipping point (¢/lb.)	410100.01	IMF - Primary Commodity Prices
Coal, HBA, Indonesia, FOB (\$/t)	270100.01	Thomson Reuters
Coal, steam coal, Australia, average FOB Newcastle (\$/t)	270100.02	Thomson Reuters
Cocoa beans, average daily prices New York/London (¢/lb.)	180100.01	International Cocoa Organization (ICCO)
Coconut oil, in bulk, Philippines/Indonesia, CIF Rotterdam (\$/t)	151311.01	World Bank - Commodity-markets
Coffee, Brazilian and other natural Arabicas, ex-dock USA (¢/lb.)	090100.02	International Coffee Organization (ICO)
Coffee, Colombian mild Arabicas, ex-dock US (¢/lb.)	090100.01	International Coffee Organization (ICO)
Coffee, other mild Arabicas, ex-dock US (¢/lb.)	090100.03	International Coffee Organization (ICO)
Coffee, Robustas, ex-dock US (¢/lb.)	090100.05	International Coffee Organization (ICO)
Copper, grade A, electrolytic wire bars/cathodes, LME, cash (£/t)	260300.01	Metal Bulletin Limited
Copra, in bulk, Philippines/Indonesia, CIF N.W. European ports (\$/t)	120300.01	World Bank - Commodity-markets
Cotton, Cotlook A Index, Middling 1-1/8", CFR Far Eastern (¢/lb.)	140400.03	Cotton Outlook
Crude oil UK Brent, light blend API 38°, spot price, FOB UK ports (\$/barrel)	270900.01	World Bank - Commodity-markets
Crude oil, Dubai, medium, Fateh API 32°, spot price, FOB Dubai (\$/barrel)	270900.02	World Bank - Commodity-markets
Fine wool, 19 micron, Australia (\$/t)	510100.01	IMF - Primary Commodity Prices
Fine wool, 19 Micron, AWEX auction price, Australia (\$/t)	510100.03	Australian Wool Innovation (AWI)
Fish meal, in bulk, 64/65% protein, FCA, Bremen (\$/t)	230120.01	World Bank - Commodity-markets

Commodity description	Database code	Source
Gold, 99.5% fine, afternoon fixing London (\$/troy ounce)	710800.01	Metal Bulletin Limited
Groundnut oil, in bulk, any origin, CIF Rotterdam (\$/t)	150810.01	World Bank - Commodity-markets
Iron ore, Brazilian to Europe, Vale Itabira SSF, 64.5% Fe content, FOB (¢/Fe unit)	260100.04	The TEX Report
Iron Ore, China import, fines, 62% Fe, spot (\$/dry tonne)	260100.01	Metal Bulletin Limited
Jute, Bangladesh, BWD, FOB Mongla (\$/t)	530300.01	FAO - Trade and Markets Division
Lead, LME, cash settlement (\$/t)	260700.02	Metal Bulletin Limited
Maize, United States, n° 3 yellow, FOB Gulf (\$/t)	100500.02	International Grains Council (IGC)
Manganese ore, 44% Mn, CIF Tianjin (\$/t)	260200.01	Metal Bulletin Limited
Natural gas, index, Europe, United States and Japan (2010=100)	271100.01	World Bank - Commodity-markets
Nickel, LME, cash (\$/t)	260400.01	Metal Bulletin Limited
Palm kernel oil, in bulk, Malaysia/Indonesia, CIF Rotterdam (\$/t)	151321.01	World Bank - Commodity-markets
Palm oil, in bulk, Malaysia/Indonesia, 5% FFA, CIF (\$/t)	151110.01	World Bank - Commodity-markets
Pepper, Indonesia, white Muntok, FAQ, EXW Rotterdam (\$/t)	090400.01	IEG Vu, Agribusiness intelligence Informa
Phosphate rock, Khouribga, 70% BPL, contract, FAS Casablanca (\$/t)	251000.01	World Bank - Commodity-markets
Platinum (\$/.9995 fine ounces)	711000.01	Metal Bulletin Limited
Plywood, Africa & SE Asia, Luan, 3-ply, 91cmx182cmx4mm, wholesale Tokyo (¢/sheet)	441200.01	World Bank - Commodity-markets
Rice, Thailand, white milled, 5% broken, export price, FOB (\$/t)	100600.01	World Bank - Commodity-markets
Rubber, TSR 20, New York CIF (\$/t)	400100.01	Singapore Exchange (SGX)
Salmon, fresh, fish-farm bred, export price, Norway (\$/kg)	030212.01	Statistics Norway
Sawnwood, Dark Red Meranti, Malaysia, CFR plus commission, UK (\$/m3)	440700.01	World Bank - Commodity-markets
Shrimps, brown no. 1, shell-on, headless, Mexico (\$/kg)	030613.01	World Bank - Commodity-markets
Silver, 99.9%, Handy & Harman, New York (¢/troy ounce)	261600.01	Metal Bulletin Limited

Commodity description	Database code	Source
Soybean meal, in bulk, 45/46% protein, Hamburg FOB ex-mill (\$/t)	120810.01	World Bank - Commodity-markets
Soybean oil, in bulk, Netherlands, FOB ex-mill (\$/t)	150710.01	World Bank - Commodity-markets
Soybeans, in bulk, United States, n° 2 yellow, CIF Rotterdam (\$/t)	120100.01	World Bank - Commodity-markets
Sugar, average of I.S.A. daily prices, FOB & Stowed, in bulk, Caribbean ports (¢/lb.)	170100.01	International Sugar Organization (ISO)
Sunflower oil, in bulk, European Union, FOB N.W. European ports (\$/t)	151211.01	World Bank - Commodity-markets
Tea, Kenya Mombasa/Nairobi, auction price (\$/kg)	090200.01	World Bank - Commodity-markets
Tin, LME, cash (\$/t)	260900.01	Metal Bulletin Limited
Tobacco, unmanufactured, US import unit value (\$/t)	240100.01	United States Department of Agriculture (USDA)
Tropical logs, Sapele, high quality (loyal and marchand), FOB, Cameroon (\$/m3)	440300.01	World Bank - Commodity-markets
Wheat, United States, n° 2 Hard Red Winter (ordinary), FOB Gulf (\$/t)	100100.01	International Grains Council (IGC)
Zinc, special high grade, LME, cash settlement (\$/t)	260800.01	Metal Bulletin Limited