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FUTURE REVISION OF THE CLASSIFICATION BY BROAD ECONOMIC CATEGORIES (BEC)

Report presented at the Meeting of the Expert Group on International Economic and Social Classifications, New York, 16-18 April 2007, by

United Nations Statistics Division (UNSD)

Future revision of the Classification by Broad Economic Categories (BEC)

Proposal by UNSD

This is a proposal to put a new work programme regarding BEC on the agenda of the Expert Group on International Economic and Social Classifications. The proposal is (1) that BEC should be reviewed to ensure that its current structure relating to transportable goods is still appropriate, (2) that the draft correlation table between the BEC categories and subheadings of *Harmonized Commodity Description and Coding System*, 2007 edition, should be reviewed, and (3) that a possible extension of the BEC to services products should be considered as well as the development of a link between the BEC and the Central Product Classification (CPC).

Background information

The BEC was initially developed by UNSD for internal purposes to reclassify merchandise imports (reported in terms of SITC) into the product categories relevant to the SNA. With time, many countries started to use BEC for a variety of purposes including economic analysis and setting tariffs. UNSD has created correspondence tables between BEC and each new revision of SITC and the Harmonized System. Since the CPC is based on HS, it also can be correlated to BEC. However, over the years the BEC structure remained unchanged and the rules for assigning particular SITC or HS headings to BEC clearly need revisiting if BEC is to continue as a useful tool. The issue is quite urgent as HS07 and SITC, Rev.4 are already in force. Question is also raised about extending BEC to trade in services using CPC services categories as a starting point. UNSD prepared a draft correspondence table between HS07 and BEC, which was submitted to the EG for a review. The EG is requested to comment on the status and modalities of the possible future revision of BEC.

The introductory pages of the most recent BEC publication (2000) are given in the annex and they include a full overview of its headings.

¹ See http://unstats.un.org/unsd/trade/methodology%20IMTS.htm

Annex 1 Introductory pages of BEC publication

Historical background

- 1. The Statistical Commission, recognizing the growing need for international trade statistics analyzed by broad economic categories, recommended, at its thirteenth session, that data on large economic classes of commodities, distinguishing food, industrial supplies, capital equipment, consumer durables and consumer non-durables, should be compiled for each reporting country and for the world and principal regions to supplement the summary data already compiled on the basis of the sections of the Standard International Trade Classification (SITC). ²
- 2. Following this recommendation, the Statistical Office of the United Nations Secretariat prepared a draft classification of international trade by Broad Economic Categories (BEC), which would provide for such a compilation. Successive drafts of the classification were considered by the Statistical Commission at its fourteenth and fifteenth sessions and were referred back to the Statistical Office by the Commission with specific guidelines for further study and consultation. At its sixteenth session, the Commission reviewed a further draft (E/CN.3/408) which had been prepared by the Statistical Office based upon the guidelines of the Commission and the comments of selected countries and international organizations. The Commission was unanimous in considering that the draft classification met the requirements which it had specified at previous sessions and by its resolution 9 (XVI) requested the Secretary-General to publish the classification for international use and as a guideline for national use.³
- 3. The original BEC was defined in terms of divisions, groups, subgroups and basic headings of the *Standard International Trade Classification, Revised* ⁴ and issued in 1971. ⁵ The BEC has been revised twice since 1971. The first revision defined BEC in terms of the *Standard International Trade Classification, Revision* 2 ⁶ and was issued in 1976. ⁷ The second revision defined BEC in terms of the *Standard International Trade Classification, Revision* 3 ⁸ and was issued in 1986. ⁹ Each of these revisions was prepared and issued in response to requests by the Statistical Commission^{10, 11} and resolutions adopted by the Economic and Social Council (resolution 1948 (LVIII) of 7 May 1975 and resolution 1985/7 of 28 May 1985). The present revision of the BEC is the third and it is published for technical reasons only, to replace the second revision, in order to provide full details of the SITC, Rev. 3 headings corresponding to BEC categories 41* and 62*. These categories were incomplete in the second revision due to the omission of one page. The present revision also incorporates the corrigendum that had been issued to the second revision, and a revised introduction.

² Official Records of the Economic and Social Council, 1965, Thirty-ninth Session, Supplement No. 13 (E/4045-E/CN.3/339, para. 30).

³ Ibid., 1970, Fiftieth Session, Supplement No. 2 (E/4938-E/CN.3/417), chap. XIII.

⁴ United Nations publication, Sales No. 61.XVII.6.

⁵ Classification by Broad Economic Categories (United Nations publication, Sales No. E.71.XVII.12).

⁶ United Nations publication, Sales No. E.75.XVII.6.

⁷ Classification by Broad Economic Categories Defined in Terms of SITC, Rev. 2 (United Nations publication, Sales No. E.76.XVII.7).

⁸ United Nations publication, Sales No. E.86, XVII.12.

⁹ Classification by Broad Economic Categories Defined in Terms of SITC, Rev. 3 (United Nations publication, Sales No. E.86.XVII.24).

¹⁰ Official Records of the Economic and Social Council, 1974, Fifty-eighth Session, Supplement No. 2 (E/5603, para. 118 (b))

¹¹ Ibid., 1985, Supplement No. 6 (E/1985/26, para. 57 (f) and (i)).

The classification

4. The BEC is set out below:

THE CLASSIFICATION BY BROAD ECONOMIC CATEGORIES (BEC) 12

- 1* Food and beverages
 - 11* Primary
 - 111* Mainly for industry
 - 112* Mainly for household consumption
 - 12* Processed
 - 121* Mainly for industry
 - 122* Mainly for household consumption
- 2* Industrial supplies not elsewhere specified
 - 21* Primary
 - 22* Processed
- 3* Fuels and lubricants
 - 31* Primary
 - 32* Processed
 - 321* Motor spirit
 - 322* Other
- 4* Capital goods (except transport equipment), and parts and accessories thereof
 - 41* Capital goods (except transport equipment)
 - 42* Parts and accessories
- 5* Transport equipment, and parts and accessories thereof
 - 51* Passenger motor cars

¹² The asterisk following each reference to a BEC classification code number is a device to distinguish the BEC classification code number from the numbered sections, divisions and groups of the SITC, Rev. 3, which is used to define the composition of each BEC item.

- 52* Other
 - 521* Industrial
 - 522* Non-industrial
- 53* Parts and accessories
- 6* Consumer goods not elsewhere specified
 - 61* Durable
 - 62* Semi-durable
 - 63* Non-durable
- 7* Goods not elsewhere specified

Description of the classification

5. The BEC includes nineteen basic categories. The basic categories are those that are not further subdivided in the above listing of the classification, namely, 111*, 112*, 121*, 122*, 21*, 22*, 31*, 321*, 322*, 41*, 42*, 51*, 521*, 522*, 53*, 61*, 62*, 63* and 7*. Each category of the BEC is defined in terms of divisions, groups, subgroups and basic headings of the SITC, Rev. 3. The categories of the BEC are a rearrangement and aggregation of the basic headings of the SITC, Rev. 3 reflecting the end-uses of the commodities covered by each basic heading. Each SITC, Rev. 3 basic heading is allocated entirely to one BEC category. The allocation is done on the basis of the main end-use of the commodities in each SITC, Rev. 3 basic heading, although it is recognized that many commodities that are traded internationally may be put to a variety of uses.

6. The BEC:

(i) Distinguishes the five categories specified by the Commission at its thirteenth session; namely food, industrial supplies, capital equipment, consumer durables and consumer non-durables;

- (ii) Provides separate categories for "fuels and lubricants" and "transport equipment" in pursuance of the Commission's discussions at its fourteenth session, ¹³ and within these categories includes special subcategories for "motor spirit" and "passenger motor cars";
- (iii) Provides within the categories relating to capital goods, a distinction between equipment proper and parts and accessories;

¹³ Official Records of the Economic and Social Council, 1966, Forty-second Session, Supplement No. 3 (E/4283-E/CN.3/354, para. 34).

- (iv) Provides within the categories for "Food and beverages", "Industrial supplies not elsewhere specified" and "Fuels and lubricants", a distinction between "primary" commodities and "processed" commodities;
- (v) Provides within the categories for "Primary food and beverages", "Processed food and beverages" and "Transport equipment" (other than parts and accessories and passenger motor cars), a distinction between commodities for industry and those for household consumption.

Purposes of the classification

- 7. The BEC was originally devised mainly for use by the Statistical Office of the United Nations Secretariat for the summarization of data on international trade by large economic classes of commodities (see para. 1 above). In addition, it was designed to serve as a means for converting external trade data compiled on the SITC into end-use categories that are meaningful within the framework of the System of National Accounts (SNA), ¹⁴ namely categories approximating the three basic classes of goods in the SNA: capital goods, intermediate goods and consumption goods. ¹⁵ Specifically, the subcategories of the BEC can be aggregated to approximate these three classes of goods. This aggregation permits external trade statistics to be considered jointly with other sets of general economic statistics, such as national accounts and industrial statistics, for national, regional or world level economic analysis.
- 8. The classification was also expected by the Statistical Commission to serve as a guideline for national classifications of imports according to broad economic categories. ¹⁶ However, at its sixteenth session, the Statistical Commission "recognized that countries might wish to adapt the classification for national purposes in different ways to meet national requirements," ¹⁷ and concluded that "consequently, the classification was not to be regarded as a standard classification in the same sense as was, for example, the Standard International Trade Classification (SITC)." ¹⁸

Correspondence of BEC with the basic classes of goods in the SNA

9. The correspondence of the 19 BEC basic categories with the basic classes of goods in the SNA (capital goods, intermediate goods and consumption goods) is set out below.

THE CLASSIFICATION BY BROAD ECONOMIC CATEGORIES (BEC)

BASIC CLASSES OF GOODS IN THE SNA

1* Food and beverages

11* Primary

¹⁴ *Ibid.*, 1968, Forty-fourth Session, Supplement No. 10 (E/4471-E/CN.3/390, paras. 116 and 118).

¹⁵ A System of National Accounts (United Nations publication, Sales No. E.69.XVII.3, para. 1.50).

¹⁶ Official Records of the Economic and Social Council, 1968, Forty-fourth Session, Supplement No. 10 (E/4471-E/CN.3/390, para. 123).

¹⁷ *Ibid.*, 1970, Fiftieth Session, Supplement No. 2 (E/4938-E/CN.3/417, para. 95).

¹⁸ *Ibid*.

111* Mainly for industry	Intermediate goods
112* Mainly for household consump	tion Consumption goods
12* Processed	
121* Mainly for industry	Intermediate goods
122* Mainly for household consump	tion Consumption goods
2* Industrial supplies not elsewhere specified	
21* Primary	Intermediate goods
22* Processed	Intermediate goods
3* Fuels and lubricants	
31* Primary	Intermediate goods
32* Processed	
321* Motor spirit	(see para. 11 below)
322* Other	Intermediate goods
4* Capital goods (except transport equipment)	, and parts and accessories thereof
4* Capital goods (except transport equipment) 41* Capital goods (except transport equip	-
	-
41* Capital goods (except transport equip	ment) Capital goods Intermediate goods
41* Capital goods (except transport equip. 42* Parts and accessories	ment) Capital goods Intermediate goods
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor	ment) Capital goods Intermediate goods ories thereof
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars	ment) Capital goods Intermediate goods ories thereof
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars 52* Other	Intermediate goods ories thereof (see para. 11 below)
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars 52* Other 521* Industrial	ment) Capital goods Intermediate goods ories thereof (see para. 11 below) Capital goods
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars 52* Other 521* Industrial 522* Non-industrial	Intermediate goods ories thereof (see para. 11 below) Capital goods Consumption goods
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars 52* Other 521* Industrial 522* Non-industrial 53* Parts and accessories	Intermediate goods ories thereof (see para. 11 below) Capital goods Consumption goods
41* Capital goods (except transport equip. 42* Parts and accessories 5* Transport equipment, and parts and accessor 51* Passenger motor cars 52* Other 521* Industrial 522* Non-industrial 53* Parts and accessories 6* Consumer goods not elsewhere specified	Intermediate goods ories thereof (see para. 11 below) Capital goods Consumption goods Intermediate goods

7* Goods not elsewhere specified

(see para. 11 below)

The basic classes of goods in the SNA in terms of BEC

10. The composition of the three basic classes of goods in the SNA in terms of the basic categories of the BEC is shown below:

1. Capital goods

Sum of categories:

- 41* Capital goods (except transport equipment)
- 521* Transport equipment, industrial

2. Intermediate goods

Sum of categories:

- 111* Food and beverages, primary, mainly for industry
- 121* Food and beverages, processed, mainly for industry
- 21* Industrial supplies not elsewhere specified, primary
- 22* Industrial supplies not elsewhere specified, processed
- 31* Fuels and lubricants, primary
- 322* Fuels and lubricants, processed (other than motor spirit)
- 42* Parts and accessories of capital goods (except transport equipment)
- 53* Parts and accessories of transport equipment

3. Consumption goods

Sum of categories:

- 112* Food and beverages, primary, mainly for household consumption
- 122* Food and beverages, processed, mainly for household consumption
- 522* Transport equipment, non-industrial
- 61* Consumer goods not elsewhere specified, durable
- 62* Consumer goods not elsewhere specified, semi-durable
- 63* Consumer goods not elsewhere specified, non-durable

11. The above groupings include only 16 of the 19 BEC basic categories as categories 321* Motor spirit, 51* Passenger motor cars and 7* Goods not elsewhere specified, are omitted. Category 321* Motor spirit and Category 51* Passenger motor cars are used extensively both for industry and for household consumption. Category 7* Goods not elsewhere specified, includes among other commodities, a range of military equipment, postal packages and special transactions and commodities not classified according to kind and can be a mix of the SNA classes of goods. These three BEC categories are of particular importance in international trade and of great interest to economists and others studying international flows of commodities. As indicated in paragraphs 16 and 18 below, these commodities were considered to be sufficiently important to warrant establishment in the BEC of separate categories. Users may choose to make their own assignments of these three categories of goods among the basic SNA classes of goods.

Description of the categories

- 12. The BEC makes provision for the main categories originally requested by the Commission (see paras. 1 and 6 above). In addition, in order to provide elements which enable the construction of aggregates approximately comparable to those for the three basic classes of goods in the SNA, a number of subcategories were established to supplement these main categories. The subcategories reflect the various end-uses of commodities. Some features of the commodity composition of each of the BEC categories are outlined in the following paragraphs.
- In each of the categories 1* Food and beverages, 2* Industrial supplies not elsewhere specified and 3* Fuels and lubricants, subcategories of primary and processed commodities were In general, commodities have been classified as "primary" if they are established. characteristically products of primary sectors of the economy - i.e., farming, forestry, fishing, hunting, and the extractive industries. In addition, commodities which characteristically are products of other sectors, such as manufacturing are also classified as primary if nearly all 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 almost all the value of ginned cotton derives from the agricultural sector, it is classified in the BEC as a primary commodity, not as a product of the textile industry in which cotton ginning is included in the International Standard Industrial Classification of All Economic Activities (ISIC). 19 Canned and prepared foods, on the other hand, owe much of their value to the food-processing industry and are therefore generally excluded from the primary category in the BEC and are consequently classified as processed. Thus, a commodity is classified as primary if it is a product of farm, forest, fishing and hunting, or of an extractive industry, to whose value transformation has made only a minor contribution. Waste and scrap materials are also classified as primary commodities in the BEC. If a commodity is not defined as primary, it is classified as processed in the BEC.
- 14. In category 1* Food and beverages, in order to facilitate analysis in terms of the SNA classes, categories 11* Primary food and beverages and 12* Processed food and beverages, were subdivided to provide for commodities "mainly for industry" and "mainly for household consumption". The main or usual end-use of many of the food items in BEC category 1* Food and beverages, is household consumption, while other food items in that category are used as intermediate goods in industry. For instance, tea is mainly used for household consumption, as are processed canned foods. Wheat, however, is commonly supplied to the milling industry to

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¹⁹ United Nations publication, Sales No. E.68.XVII.8.

produce flour, and flour, in turn, is commonly supplied to bakeries to produce bread: therefore, both wheat and flour may be considered as intermediate goods for the food industry. In addition, many food items may in some instances be used for industry, and in other instances for household consumption. In the case of category 11* Primary food and beverages, the great majority of items are capable of dual use, and the only practicable way of making an assignment between the SNA classes of goods in this category is by adopting conventions. Thus, for example, the conventions are adopted that food grains, when traded internationally, are normally for use by industry, and that fresh fruit and vegetables, when traded internationally, are normally for household consumption. In the case of category 12* Processed food and beverages, the majority of items can be allocated to an SNA class with greater certainty, but a considerable application of conventions is nevertheless involved in the case of several commodities.

- 15. In category 2* Industrial supplies not elsewhere specified, no breakdown beyond primary and processed was called for as the assignment to the SNA classes of goods is entirely to intermediate goods.
- 16. In category 3* Fuels and lubricants, the processed component was further subdivided to identify 321* Motor spirit and 322* Other processed fuels and lubricants. Motor spirit was separately identified because of its importance as a commodity in trade. It is a commodity commonly used by both industry and consumers, that is, it can be both an intermediate and consumption good. It is separately identified in the BEC but not allocated to a specific SNA class (see para. 11 above). Commodities in categories 31* Primary fuels and lubricants and 322* Other processed fuels and lubricants are entirely intermediate goods.
- 17. Category 4* Capital goods (except transport equipment), and parts and accessories thereof, is divided into two subcategories in which commodities are classified according to whether their main end-use is as capital goods (41* Capital goods, excluding transport equipment) or as intermediate goods (42* Parts and accessories). This category includes machinery, such as electrical generators and computers, and other manufactured goods, such as medical furniture, which are used by industry, government and non-profit private institutions. They are, in fact, producers' goods that are defined in the SNA as part of fixed capital formation and are thus capital goods. Parts and accessories essential to the maintenance of machinery, and unassembled components of machinery, etc. used as supplies to assembling plants, are inputs to industry and are, for this reason, considered as intermediate goods. However, see paragraph 18 below under category 5* Transport equipment, and parts and accessories thereof, for the treatment of unassembled vehicles.
- 18. Category 5* Transport equipment, and parts and accessories thereof covers finished ships, road vehicles, aircraft, railway and tramway rolling stock and their parts and other accessories. In the SNA, the finished commodities are classified as capital goods or as (durable) consumer goods, while parts and accessories are treated as intermediate goods. The category was broken down into 51* Passenger motor cars, 52* Other transport equipment (i.e., other than passenger motor cars) and 53* Parts and accessories. Category 51* Passenger motor cars was identified as a separate category because of the importance of passenger motor cars in trade. They are commodities commonly used in industry as capital goods or as consumer durables; that is, they can be a capital good or a consumption good. The subcategory is separately identified in the BEC but not allocated to a specific SNA class (see para. 11 above). Most of subcategory 52* Other transport equipment traded internationally is classified as capital goods, but several items, such as motorcycles and bicycles, are normally used by consumers and consequently are classified as consumption goods. Subcategories 521* Industrial and 522* Non-industrial were introduced to cover these. Subcategory 53* Parts and accessories, is considered as intermediate

goods. However, unassembled vehicles (part of SITC headings 781, 782 and 783), which are in fact, input into assembling plants and should be allocated to BEC category 53*, are classified together with the corresponding assembled vehicles in categories 51* and 52* because assembled and unassembled vehicles are classified within the same SITC heading.

- 19. Category 6* Consumer goods not elsewhere specified, while fully assignable as consumption goods in the SNA, has three subcategories in the BEC reflecting the durability of consumption goods. Subcategory 61* Durable consumer goods, includes commodities which have an expected lifetime of more than one year and of a relatively high value, such as refrigerators and washing machines, together with other commodities with a useful life of three years or more; subcategory 62* Semi-durable consumer goods, includes those which have an expected lifetime of use of more than one year but less than three years and are not relatively of high value; and subcategory 63* Non-durable consumer goods includes those with an expected lifetime of a year or less.
- 20. Category 7* Goods not elsewhere specified includes, among other commodities, a range of military equipment, postal packages and special transactions and commodities not classified according to kind. No subcategories are made for this category in the BEC and it is not assigned to any of the basic classes of the SNA (see para. 11 above).

General remarks

21. It is proposed that in order to facilitate international comparison by end-use, the 19 categories and the three derived classes of the BEC - capital goods, intermediate goods and consumption goods - be recognized internationally as a useful classification for all commodities traded internationally. They are not intended to interfere with or supersede a classification that is more compatible with the internal statistical system of any country. Countries may wish to utilize the BEC for national purposes as a supplement to existing classifications.