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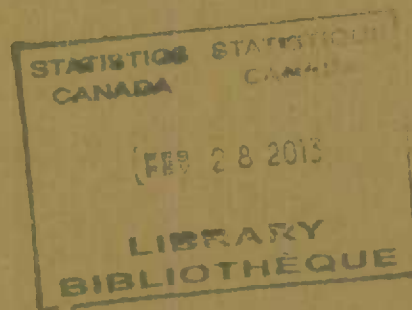
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**CLASSIFICATION OF COMMODITIES
IN TRADE STATISTICS**

With Special Reference to Classification by Purpose or Use.

*Memorandum submitted by the Dominion Bureau of Statistics,
Canada, to the Trade Statistics Branches of the other
countries of the British Commonwealth in pursuance
of an understanding arrived at during the
Conference of Commonwealth Statistics,
October, 1935.*

Ottawa
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CLASSIFICATION OF COMMODITIES IN TRADE STATISTICS^x

(With special reference to classification according to purpose or use)

1. By classification of commodities in trade statistics is meant, in this memorandum, the arrangement of the various items in significant groups and order.
2. Two objectives should be aimed at: first, the items of trade should be presented in such a way that a person examining the statistics should be able to find readily any particular item in which he is interested; secondly, to make possible a summary view of trade and analysis of trends and current position from distinctive points of view.
3. From the point of view of easy reference, it is convenient to have like things listed with like, and since many items must be combined under such a designation as "all other", it is important that they should be arranged along with the more specific items to which they are most nearly related. It is desirable that the arrangement of the items should be based on a logical principle, but so long as the grouping is intended only as a framework for the presentation of individual items, strict adherence to a single logical principle is not imperative, especially if the list is supplemented by an alphabetical index.
4. Once, however, the arrangement contemplates the summarization of items and the aggregation of group totals it implies analysis, and strict adherence to a single logical principle becomes imperative. Summary and analysis of trade from distinctive points of view involves the grouping of the items of trade in totals according to various attributes. These attributes are different in essence and mutually exclusive. It is axiomatic that they may not be united on an equal plane in a single grouping. For example, if a heading such as "Rubber and Manufactures thereof" appears parallel with another such as "Footwear", under which should "Footwear of Rubber" be placed? Clearly it cannot be excluded from either without invalidating the total.

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5. The League of Nations Committee of Statistical Experts has admirably stated the three principles upon which the classification of commodities should proceed viz., (1) "Nature and Component Material", (2) "Stage of Production" and (3) "Purpose or Use".

6. Ideally it should be possible to classify every commodity in its appropriate place according to each of these principles of classification. Naturally all the groups that devolve from these principles are not of equal importance or significance, and each principle is subject to certain limitations and difficulties with respect to the proper allocation of some commodities. Nevertheless, each principle is useful and valid pro tanto and since every item is classifiable according to each principle, it is obvious that an attempt to combine all principles in a single eclectic arrangement is unsound in theory and impossible in practice.

7. The framework of the Minimum List of Commodities submitted by the Committee of Experts is of the nature of a compromise as between the principles of classification, combining all three within a single framework of group and sub-groups. While it may be acceptable as a mere arrangement for listing items, it is clearly inadequate and defective as a scheme of analysis. The conflict of logical principles within the framework prevents numerous groups from being exhaustively inclusive and the totals are consequently unreliable. - (e.g. "Non Metallic Minerals" which does not include coal, peat, asphalt, petroleum, etc., or "Leather" which does not include boots and shoes). It cannot be too strongly insisted that comparability is not a mere matter of convention, i.e. agreement as to what a specific total may mean; the exclusion of a specific item from a specific total has altogether different implications in different countries.

8. In recognition of these defects in the framework of the Minimum List of Commodities the Conference of British Commonwealth Statisticians at Ottawa adopted the following resolution: -

"The Committee of Experts of the League of Nations should be invited to consider the form of presentation of the data by the League of Nations, it being the view of this Conference that the section headings are of less value than the chapter headings. Grave doubts were expressed at the Conference as to the significance and usefulness of totals that do not contain all items that might properly be allocated thereto. To obviate this difficulty, at least in part, in cases where a chapter heading relates to products n.e.s., the principal items specified elsewhere and the total of their values should be stated."

9. Clearly this resolution offers only a palliative for an ill that demands a more effective remedy. The more effective remedy seems to lie in frankly giving over the attempt to employ a single classification. A complete scheme of analyses should be drawn up from each of the various points of view, and every total and every group should be made as complete and accurate as statistical raw materials available will permit. This, of course, involves double or triple counting. If it is desired, for example, to know the total of "Rubber and Manufactures thereof", the total of "Footwear" and the total of "Elaborately Processed Goods", obviously, "Footwear of Rubber", must be included in all three. This does not mean that the items should be reprinted three different times. So long as items are accessible in one list for detailed study, the headings and sub-headings of the analytical groupings may be effectively presented in summary or skeleton form at inconsiderable cost for printing and compilation. In this way a comprehensive series of group headings is achieved and absolute reliance may be placed on the accuracy and completeness of each group total, necessity no longer existing for filching from one to complete another.

10. The Committee of Statistical Experts has presented complete classifications according to two of the principles laid down, viz. - "Stage of Production" and "Purpose or Use". Classification according to the principle of "Nature and component material" is still lacking, involved as it is in the logical inconsistencies of the "Framework of the Minimum List".

11. Classification by "Stage of Production" and "Purpose or Use" are set forth in the Committee's Report of the 4th Session. The former distinguishes three

groups -- (a) Crude, (b) Simply transformed, and (c) More elaborately transformed. This follows along conventional lines and was endorsed by the Conference of British Commonwealth Statisticians at Ottawa. The "Purpose or Use" classification was considered to have been less explored than the other two by the Conference, and it was decided that this classification should be the subject of an exchange of views between Commonwealth countries after further study, with the understanding that the Canadian Government would circulate a memorandum on some points of detail in due course.

12. In the light of the preceding, the principle to be followed in classification, stated in its simplest terms, is to select the group headings found in experience to be necessary and to ensure that every group is as accurate and complete as it is possible to make it.

13. Sir Alfred W. Flux in a memorandum (C.E.S./33) deals briefly with some of the groups that should be attempted, he says --

"We are, it would appear, likely to find most significance in the separation from the general mass of imports, of such goods as require to undergo an industrial process, whether complex or simple, before they are ready for service to the final consumer, leaving a remainder of goods that are ready to render that service without the intervention of a preliminary industrial process of adaptation.

"Further, it will be useful to distinguish "raw" products from goods that have undergone some industrial preparatory process, in each of the two classes indicated above, and an additional useful division is that between articles of food and drink and other classes of goods."

14. Further he states "The separation of capital goods from other imports is a division of the data that, if really feasible, seems likely to be of important significance." It will be noted that the groups mentioned include classification both according to the principles of "degree of manufacture" and "of use" as laid down by the Committee, as well as a distinction between goods ready for use and those that require processing as indicated in the first paragraph quoted above. The Committee points out the distinctions under "Readiness for use" and "Degree of manufacture" are by no means identical. Apples, for instance, are ready for use and are crude

materials, but on the other hand, whereas bodies or chassis for motor vehicles are highly elaborated commodities, they are not ready for the use of consumers.

15. In the discussion of these various groupings the different principles have often been confused. In the first draft of the Committee's stage of production classification a refinement was added to the three main groups distinguishing "Readiness for use". This classification was not intended as a suggestion for a grouping according to the principles of "Use", but only by "Readiness for use". A large number of the comments received upon it related to a better grouping by use and the Committee's Secretariat stated that the comments showed that it was difficult, if not impossible, to deal with readiness for use without considering at the same time the whole scheme of classification by use.

16. The Committee's final grouping by "Degree of manufacture" comprising three groups as mentioned above,

- (a) Crude.
- (b) Simply transformed.
- (c) More elaborately transformed.

gives over an attempt to deal with "readiness" in this classification. The purpose classification is thus left to take care of that distinction as well as the segregation of food and the separation of capital goods from other imports. These three, of course, do not cover all the groups that the purpose classification is capable of furnishing. It is illuminating to have a group of producers' materials and if feasible, to show consumers' goods in even greater detail than simply foods and non-foods. Further, there are some commodities such as fuel and lubricating oils, containers and advertising matter which are not exactly producers' materials or capital equipment, but rather are for auxiliary use in industry and commerce. These should be grouped together so that the significance of their use is not lost.

17. A difficulty which arises in purpose classification is the choice between conception of final use and immediate use--for example, the ultimate use of wheat is for food but the immediate use is as a producers' material for use in the

milling industry. If immediate use is taken as the criterion, wheat must logically be allocated to the latter group. The resolution of the difficulty might be found in the industrial sub-division of the main group of producers' materials in which one of the sub-divisions is raw materials for foodstuffs. Imports under this sub-group together with foods ready for use would thus measure a country's dependence on imported foodstuffs.

18. Another important point raised by Mr. E. Dana Durand is the separate grouping of commodities to be used in the production of producers' goods, from those which are to be used in the production of consumers' goods. This distinction is attempted by the Committee using the terms durable and non-durable and is discussed below in connection with the comments on the Committee's classification.

19. The groups of the "purpose or use" classification presented by the Committee are ten in number as follows: --

Materials for Production.

1. Materials for the production of human food, of beverages and of tobacco (all non-durable).
2. Materials for agricultural production (all non-durable).
3. Non-durable materials for industry and commerce, (except groups 1 and 2).
4. Durable materials for industry and commerce.

5. Animal and vegetable oils and fats and materials therefor (all non-durable).
6. Fuels, electric energy and lubricants (all non-durable).
7. Capital equipment for agriculture, industry and commerce (all durable).

Articles ready for Retail Sale or for Consumers' Use.

8. Food, beverages and tobacco (all non-durable).
9. Other non-durable articles.
10. Durable equipment ("Consumers' capital").

20. The Committee's report contains little exposition of the considerations by which it was influenced in arriving at the classification submitted. It is clear, however, that it was guided by the suggestions made by the Secretary in a note on the subject published in Document C.E.S. 44. This document lists the following

conclusions to be taken into consideration in drafting a purpose classification: -

1. The classification by use should be as short as possible in order to allow of a cross-classification with the grouping by stage of production.
2. The classification should be framed in such a way that it permits of an extension if countries desire to do so.
3. Raw materials for consumers' goods should not be classified with consumers' goods but with producers' materials. The adoption of this procedure would facilitate the allocation of items of the Minimum List to the appropriate group, as arbitrary decisions as to whether a commodity is used for producing consumers' goods or for producing producers' goods would be avoided or could, in any case, be pushed back into a further subdivision.
4. If, as suggested under 3 above, raw materials for consumers' goods go with producers' materials, the grouping by readiness for use, otherwise necessary, could probably be abandoned as Consumers' goods would be identical with goods ready for use.
5. A subdivision of producers' materials into durable and non-durable materials would largely serve the same purpose as is aimed at by a classification of producers' materials into those destined for consumers' goods and those destined for producers' goods. Such a subdivision into durable and non-durable goods can be based on the physical nature of the material without taking into consideration the future use of the commodity produced with the producers' material in question.
6. The difficult point of a suitable grouping of fuel and light could best be settled by showing these commodities as Producers' materials.

21. In connection with the first conclusion above, it is submitted that all that cross-classification involves is the tabulation of totals under each grouping, the headings of one group running horizontally across the top of the page and the headings of the other grouping running down the page. If this is what is meant, abbreviation of the use classification does not seem so imperative. The three main groups of the stage of production classification constitute three columns across the page and the use classification may extend to the full length of the page or if necessary to more than one page. Although it is desirable that the classification should be framed in such a way as to permit of an extension if countries desire to do so, it would be helpful if the Committee would indicate the form the extension might take.

22. With regard to the important point of distinguishing producers' materials according to whether they are destined for transformation into producers' goods or consumers' goods, it seems hardly probable that sufficient information will be available concerning the ultimate use of many commodities to permit the definite allocation to one group or the other. The division into durable and non-durable, which, according to conclusion five, is intended to indicate this difference, and which is based on the physical nature of the material without taking into consideration the future use of the commodity produced with the producer's material in question, is ambiguous. It is submitted that the term "producers' material" denotes something used up or consumed in a productive process. If this interpretation is correct, pig iron, which the Committee classifies as durable, but which is used up and loses its identity as such in the production of iron plates, is no more durable than raw rubber used in the production of rubber manufactures.

23. On the whole, it would seem expedient to leave the distinction implicit rather than explicit. Such a distinction would be implicit in an industrial sub-division of producers' materials. Materials for foodstuffs industries are, of course, destined for consumers' goods; materials for foundries and metal refineries would be destined for producers' goods; and building and construction materials would be destined for capital goods, either for producers' or consumers' use. This suggestion would simplify terminology and indicate more definitely the content of the groups. Group four "Durable materials for industry and commerce" in the Committee's classification, for example, is extremely vague.

24. In the case of consumers' goods, sub-division according to kinds of use would serve to answer the question as to durability, and would avoid many arbitrary and difficult decisions. Food, for instance, is non-durable, household furniture clearly is durable, but between the two extremes there is a substantial number of articles, e.g. clothing, the allocation of which is subject to doubt.

25. Turning to the actual classification submitted it is regrettable that the Committee found it necessary to provide a special class for animal and vegetable oils and fats and materials. No insuperable difficulty should be encountered in distinguishing between the edible and non-edible varieties under this heading.

26. The inclusion of fuels, energy, etc., in a separate group seems commendable. This group might well be expanded to include, under appropriate sub-headings, such products of auxiliary use in industry and commerce as wrapping paper, containers, advertising matter and the like. Another main group covering transport might well be worthy of inclusion. Motor cars may be used for private or commercial ends and their inclusion as consumers' goods is questionable. The transport group suggested would include railway rolling stock, automobiles, aircraft, vessels, tires, etc.

27. The classification provides no satisfactory group for munitions and war stores. The inclusion of item 423, "Firearms of war and other arms of war, (including "tanks" and armoured vehicles for military use)", under "Capital equipment for agriculture, industry and commerce" is objectionable.

The grouping appended hereto is an attempt to incorporate the suggestions outlined above into a classification of use, with as little deviation as possible from the general outline conceived by the Committee.

PROPOSED CLASSIFICATION ACCORDING TO THE
PRINCIPLE OF PURPOSE OR USE

- I. Producers' Materials
 - A. Raw materials for foodstuffs.
 - B. Building and construction materials.
 - C. Farm materials.
 - D. Manufacturers' materials.

- II. Producers' Equipment
 - A. Farm equipment.
 - B. Industrial equipment.
 - C. Other producers' equipment.

- III. Materials for auxiliary use in industry and commerce
 - A. Fuel.
 - B. Electrical energy.
 - C. Advertising matter.
 - D. Containers.
 - E. Lubricants.
 - F. Other.

- IV. Consumers' Goods
 - A. Foods.
 - B. Beverages.
 - C. Smokers' supplies.
 - D. Clothing.
 - E. Household goods.
 - F. Jewellery, personal, ornaments and timepieces.
 - G. Books and printed matter.
 - H. Amusement and recreation equipment.
 - I. Pharmaceutical products and medical supplies.
 - J. Other.

- V. Transport
 - A. Vehicles and complete parts.
 - B. Vessels.
 - C. Aircraft.

- VI. Munitions and war stores.

- VII. Unclassified.

Note: -- I(D) could, if desirable, be sub-divided according to industries.

TENTATIVE ALLOCATION OF ITEMS TO THE GROUPS
IN THE PROPOSED CLASSIFICATION

The allocation of the items of the Minimum List given below is purely tentative. In a short list of items, many are defined in quite general terms and precise allocation is difficult. Most countries define the items in greater detail than the Minimum List and greater precision should be possible. The figures in the summary below refer to the numbers of the items in the Minimum List. Figures in parentheses indicate an alternative allocation.

I. Producers' materials.

- A -- Raw materials for foodstuffs: 1, 2, 3, 4, 5, 26, 27, 28, (33), 38, 55, 56, 59, 61, (62), 64, 68, (87 to 113 incl.), 122a, (288), 406.
- B -- Building and construction materials: 130, 156, 157, 158, 159, 160, 161, 162, 164, 165, 166, 169, 173a, 274, 286, 287, 291, 292, 295, 296, 298, 299, 304, 305, 312, 335, 350, 353, (355), (356), (364a).
- C -- Farm materials: (30), 31, (32), (33), (62), 79 to 84 incl., 138 to 146 incl.
- D -- Manufacturers' materials: (30), (32), 85, (87 to 113 incl.), 114, 115, 116, 117, 118, 119, 120, 121, 122b, 123, 124, 126, 127, 128, 129, 133, 136, 147, 148, 149, 151, 152, 155, 167, 168, 172, 173b, 174 to 182 incl., (185), 186 to 190 incl., 193, 194, 195 to 250 except 232b and 244, 246 to 250 incl., 275, 289, 290, 293, 294, 297, 303, 309, 318, 319, 320, 321, 322, 324 to 331 incl., 332a, 333, 334, 336, 337 to 349 incl., (355), (364a), 405, 407, 408, 411, 412, 413, 414, 415, 416, 417, 444, 445.

II. Producers' equipment.

- A -- Farm equipment: 332b, 352, 360, 373, 403, 404, 409a and b, 410.
- B -- Industrial equipment: 192a, 313, 314, 351, 354, 372, 376, 377, 378, 379.
- C -- Other producers' equipment: 357, 361, 363b, c and d, 371a, 374, (381), (382), 385, 427, 428, 438.

III. Materials for auxiliary use in industry and commerce.

- A -- Fuel: 153, 154, 269 to 273 incl., 276, 277, 278, 280, 281, 282.

III. Materials for auxiliary use in industry and commerce -- (Concl'd.).

- B -- Electrical energy: 285.
- C -- Advertising matter.
- D -- Containers: 160, 183, 267, 306, 363a.
- E -- Lubricants: 279.
- F -- Other: 283.

IV. Consumers' goods.

- A -- Foods: 6 to 25 incl., 29, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 57, 58, 60, 63, 69, 78, (288).
- B -- Beverages: 65, 66, 67, 71 to 77 incl.
- C -- Smokers' supplies: 86, 442.
- D -- Clothing: 251 to 265 incl., 434.
- E -- Household goods: 170, 232b, 244, 266, 284, 300, 301, 358, 359, 362, (370), 375, 380, (381), 382, 384b, 436, 437.
- F -- Jewellery, personal ornaments, etc.: 311, 317, 323, 371, 419, 420, 432.
- G -- Books and printed matter: 447, 449.
- H -- Amusement and recreation equipment: 421, 422, 430, 439, 443, 448b.
- I -- Pharmaceutical products and medical supplies: 125.
- J -- Other: 131, 132, 134, 135, 137, 184, (185), 191, 192b, c and d, 268, 307, 308, 371b, 409c, 418, 426, 429, 431, 435, 440, 446, 448a, 448c.

V. Transport.

- A -- Vehicles and complete parts: 150, 384a, 386 to 399 incl.
- B -- Vessels: 401, 402.
- C -- Aircraft: 400.

VI. Munitions and war stores: 423, 424, 425.

VII. Unclassified: 171, 173c, 302, 311, 315, 316, 364b, 365 to 369 incl., 371d, 384c, 433, 441, 450, 451, 452.

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