STATISTICAL COMMISSION
Seventh session
Item 6 of the provisional agenda

WHOLESALE PRICE STATISTICS

(Memorandum by the Secretary-General)
STATISTICS OF WHOLESALE PRICES

Memorandum by the Secretary-General

Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Section I</td>
<td>The extension of price data collection</td>
<td>6</td>
</tr>
<tr>
<td>II</td>
<td>Scope, basis of weighting, formula, etc.</td>
<td>8</td>
</tr>
<tr>
<td>III</td>
<td>The system of index numbers</td>
<td>9</td>
</tr>
<tr>
<td>IV</td>
<td>The sector approach</td>
<td>12</td>
</tr>
<tr>
<td>V</td>
<td>Revised draft recommendations</td>
<td>20</td>
</tr>
<tr>
<td>VI</td>
<td>International indexes of sensitive commodities</td>
<td>26</td>
</tr>
<tr>
<td>VII</td>
<td>Proposed action by the Statistical Commission</td>
<td>27</td>
</tr>
<tr>
<td>Appendix I</td>
<td>Original recommendations circulated for comment</td>
<td>28</td>
</tr>
</tbody>
</table>

The following appendices will be issued separately in an addendum to this document E/CN.3/144/Add.1:

Appendix II Summary of national comments on original recommendations

III Extract from report of international seminar, Beirut, July 1952

IV Extract from report of Second Regional Conference of Statisticians, Bangkok, September 1952
STATISTICS OF WHOLESALE PRICES

Memorandum by the Secretary-General

Introduction

1. At its sixth session in May 1951 the Statistical Commission considered the subject of the collection of wholesale price data and the construction of index numbers of wholesale prices on the basis of a technical report which had been prepared by the Secretary-General with the assistance of two expert consultants, Dr. R. C. Cazay, Director of the Central Statistical Office, Dublin, and Professor Morris A. Copeland of Cornell University. In view of the comprehensive character of the proposals made in the report, the Commission decided that further study of these proposals would be desirable before the adoption of recommendations in this field, and accordingly requested the Secretary-General (E/1951, para. 52)

(a) To circulate the technical report to governments and to specialized agencies for their comments on the objectives, concepts and methods set out in the report;
(b) To report on the views and comments of countries at a later session of the Statistical Commission with a view to the Commission's making recommendations for the development of standards in this field and for the improvement of international comparability of wholesale price index numbers;
(c) To study the problems involved in establishing indexes for the special purpose of international comparisons of the movements of sensitive commodities in different countries and to report thereon at a later session of the Commission.

2. In accordance with this request, the technical report was circulated for comment to governments and to specialized agencies. A summary of the main points made in the Commission's discussion of the report was also circulated at the same time so that countries would be able to take account of the views expressed by the Commission in formulating their comments. Substantial comments were submitted by Brazil, Canada, France, Western Germany, Ireland, Japan,
the United Kingdom, the United States, the Food and Agriculture Organization and the International Labour Organisation. Comprehensive and detailed joint comments were also submitted by Belgium, Luxembourg and the Netherlands and by Denmark, Finland, Norway and Sweden. In most cases the comments received from these countries and specialized agencies included a systematic discussion of all or most of the major questions considered in the report, as well as an expression of views concerning the proposals for international standards contained in the draft recommendations. In addition, briefer comments were received from Austria, Burma, Ethiopia, the Hashemite Kingdom of the Jordan, New Zealand and Switzerland. These comments were confined for the most part to points that were of particular interest to the countries concerned.

3. In view of the great value of these comments, a summary has been prepared for the Commission's information, and is given as Appendix II in document E/CN.3/144/Add.1. For convenience, the comments are arranged according to the chapter headings of the technical report.

4. The subject of wholesale prices has also been discussed at an international seminar held in Beirut in July 1952 and at a regional conference held in Bangkok in September 1952. The relevant sections of the reports of these two meetings are also circulated separately as Appendices III and IV in document E/CN.3/144/Add.1.

5. In this paper, the original recommendations (which are quoted in Appendix I) are considered in the light of all the comments received, and a new set of recommendations is presented for the Commission's consideration. For convenience of consideration, the original recommendations are divided into three classes:

1. A recommendation that countries should collect price series on all commodities of importance in their economy, including semi-finished and finished products, instead of limiting their price series to raw materials as is often the case at present;

2. Recommendations concerning the field of prices to be covered, the classification of the price series, the treatment of varieties, the weighting, the formula, the base, frequency of checking and review, and the treatment of seasonal variation.

3. A recommendation that the price series should be combined into a number of index numbers, of which the main system should be according
to a commodity classification crowning by a general wholesale
price index; in addition, that index numbers should be compiled
for the products of, and for the materials used in, each important
industry, and for total finished products, domestic finished
products, domestic consumption, imports and exports.

6. The comments reveal general agreement on (1). With regard to the matters
listed under (2), there appears to be substantial agreement. Certain changes
have been suggested, but they are not fundamental and the relevant
recommendations can be re-drafted in a way which, it is believed, will
command broad agreement. However, the comments on the proposed system of
index numbers indicate basic disagreements which are explained in
Sections III and IV below. There are two different approaches to this
question, referred to in this paper as the traditional approach and the
sector approach, and they lead to different types of index numbers.

7. The new set of recommendations which is given in Section V, below is
therefore divided into two parts. Part A consists of the revised set of
recommendations on the matters on which there appears to be substantial
agreement, namely, the scope, formula, base period, etc. Part B is a set of
recommendations concerning index numbers which is based on the sector
approach. It is presented as an alternative to the original recommendations
in this field, namely items (e) through (h) of Appendix I.
SECTION I

THE EXTENSION OF PRICE DATA COLLECTION

8. This section refers to the recommendation that each country should institute a comprehensive system for the collection and publication of data on wholesale prices (recommendation (a) of Appendix I).

9. All the comments received supported this recommendation as a desirable objective. It was pointed out that to a great extent it stood on its own, apart from the recommendations concerning the system of index numbers. To quote one set of comments: "In this field (of wholesale price statistics) what is probably more important than anything else is to have accurate and detailed prices, with continuous runs of comparable figures, of individual commodities of all kinds. The preparation of indices for groups of items is, in our view, less important than the collection and publication in detail of comprehensive information of this kind."

10. Price statistics are needed for many purposes other than the construction of index numbers. Governments need to know what is happening to prices in order to formulate policies for the control of inflation or deflation, to administer a price control policy when this is necessary, to regulate the supply of credit and in fact for most questions of economic policy. Businessmen need to know the prices of individual commodities and how they are changing in order to make rational decisions on the buying, selling and making of goods. Economists need data on individual prices for economic analysis and for many types of research work, including the deflation of value series, studies of the price elasticity of demand, analysis of changes in price margins, and business cycle research.

11. The recommendation for the great extent of price data collection is the most important and far-reaching, and it is proposed to retain it as the fundamental recommendation. In nearly every country, the collection of additional price series is the first and essential step in improving price statistics. It is also the most expensive in resources; in comparison the combination of series into even an elaborate system of index numbers is a relatively light task.
12. However, while it was recognized that the collection of price series on all important commodities is the primary objective, a number of countries pointed out that the task would be beyond their means at present. Later in this paper, therefore, consideration is given to the establishment of priorities so that countries can build up their systems by orderly stages.
SECTION II

SCOPE, BASIS OF WEIGHTING, FORMULA, ETC.

13. This section refers to the recommendations concerning the basic data, the indexes for individual commodities, the scope of the field of study, the basis of weighting, the formula, the base period, and the nature and frequency of reviews (recommendations (b) through (d) and (i) through (n) of Appendix I).

14. The comments received were in general agreement with the essential points of these recommendations, although a number of changes were suggested. These suggestions were as follows:

(a) Goods sold direct from the producer to the consumer should not be excluded as suggested in the report, but included in the field of study.
(b) Several countries suggested that the field of study should include services as well as goods. It is proposed however that in view of the special difficulties arising in the pricing of services, the field should not be extended in this way for the time being. The Commission may wish to include this problem in its future programme of work however.
(c) A number of countries commented that the SITC is not altogether suitable for grouping commodities for purposes of price statistics. However, it is considered that it remains suitable for identifying and listing the commodities for which price series are required, with such subdivisions of items as may be necessary in each country. It is not intended that index numbers of prices should be prepared for the groupings of the SITC unless they are nationally required.
(d) There is little hope of agreement on a standard base year for adoption by countries generally, but this is not of great importance.
(e) The annual calculation of Paasche indexes as a check on the continued validity of the weights was a refinement of less importance than some other conclusions. This was particularly true of sub-indexes.
(f) Some countries expressed opposition to the publication of seasonally adjusted indexes since they might mislead the public.

15. All these comments are taken into account in the revised draft recommendations given in Section V, part A, below.
SECTION III
THE SYSTEM OF INDEX NUMBERS

16. In the two last sections it has been possible to say that the comments revealed substantial agreement at least on essentials. This is not true of the system of index numbers. Many of the comments on these recommendations revealed basic disagreement with the technical report and with one another. It is therefore necessary to treat this problem in some detail.

17. The technical report, in proposing that the main system of index numbers should be according to a commodity classification, followed what may be called the traditional approach. This approach has been fully described in the technical report and it is not necessary to repeat the description here. The essential points are that, according to this approach, the price series for individual commodities should be combined into indexes for related groups of commodities, and these indexes in turn should be combined into a general index, possibly with an intervening stage for broader groups. The basis of the grouping should be the nature of the commodity and not the industry of origin.

18. In this approach, the primary purpose which the general index was intended to serve was to provide an overall measure of changes in conditions of supply and demand as reflected in commodity prices. The general index was also considered to provide some indication of changes in the value of money or the purchasing power of a nation's currency. To some extent the methodology originated in the concept of the "equation of exchange", and the general wholesale price index was conceived as the price correlative of changes in the aggregate money value of all commodity transactions at wholesale. In other words, it was regarded as a measure of the price aspect of changes in the total value of transactions involving the exchange of commodities, including all the "duplication" resulting from the fact that commodities may be resold a number of times while in the stage of wholesale distribution, although, in fact, the general indexes constructed were far too limited in coverage to serve this purpose at all adequately. It was admitted in the technical report
also that the concept of the simple equation of exchange was of doubtful validity; that it is generally thought today that the value of money is an ambiguous notion, and that the purchasing power of money in various sectors of the economy may change in different degrees. It was admitted further that the concept of a general level of wholesale prices is no longer regarded as having any great economic significance since economists tend now to think in terms of social accounts and economic flows and not of the equation of exchange.

19. Many of the comments received indicated dissatisfaction with this approach, and therefore disagreed with the proposal that the main system of index numbers should be based on it. It is clear from this set of comments, taken as a whole, that there is widespread and keen interest in the subject of price index numbers, that much thought is being devoted to their proper uses, and that the need is felt for a thorough re-examination of the theory and methodology underlying them. Efforts are being made in a number of countries to recast the theoretical foundations of price index numbers by relating them to the framework provided by national income accounting. The impression is received that this process is not complete and that it may be too early to secure agreement either on the validity of this general approach as a guide to the selection and construction of price index numbers, or on the set of index numbers to which it leads. Certainly the comments received were not in agreement on the details of the system of index numbers to be substituted for the commodity indexes of the traditional approach. One view is (in essence) that priority should be given to the compilation of a producers' price index. Another view is that indexes for home-consumed goods should come first. A third is that prices should be collected at two stages, when goods leave the producing sector to enter wholesale distribution, and when they leave wholesale distribution to enter retail outlets or for final consumption or to re-enter the producing sector. It would be possible to draw up a scheme which lists all the index numbers which have been suggested, with no indication of choice between them, but this does not seem the most profitable course. Instead, in Section IV, a statement is attempted of the foundations of this new approach.
by sectors of the economy and of the kinds of index numbers to which it leads in different circumstances, and in Section V, part B, a set of recommendations based on this approach is presented as a contrast to the original recommendations in this field. It is hoped that this will serve to focus discussion.

20. There is one set of price index numbers referred to in the technical report, however, which does not appear to be in question, namely, index numbers for important individual commodities. These indicate changes in the composite price for a commodity and can be built up from quotation series for different varieties of the commodity by the normal methods of index number construction. If the results are given in absolute terms the series is a "commodity composite price series"; if relative to a base period counted as one hundred, an index number. One or other of these may be the form in which countries choose to publish the data on prices of individual commodities which they collect, since the quotations for specific varieties may have been obtained in confidence. Another advantage of compiling index numbers or composite price series is that the variety quotation series may be relatively short-lived, but the composite series can be continued with a new variety-mix if there is a suitable period of overlap.
SECTION IV

THE SECTOR APPROACH

21. In this approach the economy is divided into a number of sectors, each of which trades with the others. It is the flows of goods against money thus set up which are taken as the framework for price indexes (services also flow between the sectors, but for the reasons given in Section II above, these are excluded from the scope of this paper). For each sector there are two basic price indexes, one showing changes in the prices of goods flowing into the sector, the other showing changes in the prices of goods flowing out.

22. What are these sectors? They are the goods-producing part of the economy divided into industries, together with the consumers and, in an open economy, the rest of the world. If it were not for the fact that some industries supply goods to other industries, the relevant flows would be simple to identify. Of the goods produced by the industries, some would flow to domestic consumers, and the remainder would be exported. In addition, goods would be imported, some for final consumption, some for processing, and some as capital goods. The input of the goods-producing sector would be, on current account, the imported goods for processing, and on capital account, the imports of capital goods; its output would be the goods produced for domestic consumption and for export. The input of the rest of the world would be the exports and its output the imports (some on capital and some on current account). The input of the consumers' sector would be the goods for final consumption of both domestic and foreign origin. The output of consumers would be the supply of labour, but this is outside the scheme of the present paper which is confined to flows of goods. There would be five flows in this model: (1) goods of domestic origin for domestic consumption, (2) exports of domestic goods, (3) imports for processing, (4) imports of capital goods, (5) imports for final consumption.

* Since retail prices are excluded from the scope of this paper, the flow of goods to consumers means - broadly speaking - the flow into retail outlets, not into final consumption.
23. The fact that some industries produce goods for other industries greatly complicates the picture. Some of these goods are capital assets and the remainder are goods for further processing. The first complication is that there is a great increase in the number of flows in the system. Each of the five flows specified above either enters or leaves a single sector. But the flow of goods for further processing and of home-produced capital goods is made up of a number of flows between pairs of industries.

24. The second complication is that the introduction of flows between industries introduces an element of arbitrariness to the whole model, because the "industries" into which the goods-producing sector is divided can be broad or narrow and the question of which goods enter the inter-sectoral flows (as contrasted with intermediate goods which are internal to a sector) depends on the breadth of the industries selected. The goods-producing sector can be divided up into divisions such as agriculture, manufacturing, etc; or into industry groups such as the food manufacturing industries; or into individual industries such as sugar refining; or even into separate establishments. In each case the whole ground is covered with no gaps or overlaps, but the flow of goods for further processing and of capital goods is very different in the various cases, because as the sectors become narrower more and more goods which were formerly the subject of transactions inside sectors only, enter into inter-sectoral flows.

25. Although from the conceptual viewpoint it is largely arbitrary, the decision on the degree of detail in which to divide up the goods-producing sector is crucial to the definition of these flows. The effect of this decision is different in the case of capital goods from the case of goods for further processing. Since all capital goods are finished goods ready for use, there is no duplication of materials and finished products among the flows between different pairs of sectors. In the case of the flows of capital goods, therefore, a more detailed cutting-up of the economy always produces more complete data than a less detailed cutting-up, in which the circles drawn are broader. For example, if the economy is divided into separate industries, capital goods made by the textile machinery industry for the cotton-spinning
industry enter into an economic flow; this would not be the case if the circles were drawn only at the level of agriculture, manufacturing, etc. Since then only capital goods entering the flow between these sectors, e.g. agricultural machinery, would emerge. The smaller the circles, therefore, the better.

26. This is not true, however, of goods for further processing. In this case to go into further detail, i.e. to make the sectors narrower and more numerous, produces different economic flows but, because of the duplication between materials and finished goods, not necessarily better or more interesting ones. For example, the inputs into particular manufacturing industries, while constituting flows of interest in themselves, cannot be added together to give the input of manufacturing as a whole. To identify that flow, a separate large circle, which is not the sum of the smaller circles, must be drawn. Division of the economy into sectors of a given size therefore provides answers to questions relating to sectors of that size, but not to sectors of a larger size any more than to sectors of a smaller size.

27. For this reason, division into sectors of a single magnitude will not provide all the answers about the prices of goods for further processing likely to be needed by a country moderately or well advanced statistically.

28. To compile indexes for the input and output of individual industries, the goods-producing sector has to be divided up into those industries, the commodities comprising the inward and outward flows of each industry identified, and price indexes worked out for each combination of commodities. To compile indexes for the input and output of manufacturing industry as a whole, separate splitting-up of the economy has to be made at this less detailed stage, and the inward and outward flows of this wider sector separately identified. Similarly, to compile indexes for the input and output of the goods-producing sector as a whole, another separate calculation has to be made. The differences arise clearly in the weights; for instance, the weight for coal leaving the mining industry is different from the weight for coal leaving the goods-producing sector for final consumption and export. Differences may arise in prices also, but these are likely to be less
important, particularly when the price series are expressed in the form of relatives.

29. It is evident that many meaningful price indexes might be computed as the price correlative to important economic flows between sectors of the economy. The circles can be drawn narrow or wide. The flows between them can be confined to the total inflow or outflow of particular circles, or distinctions can be drawn according to source or destination of the flow. Neither the need nor the resources exist, however, for the calculation of many of these indexes at frequent intervals. A limited number of indexes of the greatest importance for the analysis of current economic developments has to be selected. A list of monthly indexes that would probably satisfy even the most ambitious country at the present time would consist of an input and an output index for each broad sector and each individual industry, and for some important groups of industries in between; an index for consumers' goods and one for capital goods for the home market, with appropriate sub-indexes; indexes for exports and for retained imports; and less frequently, possibly at annual intervals, price indexes for the flows between each pair of industries, as in an input-output table. However, quite apart from the question of the amount of statistical resources available, it is not possible to draw up a single definitive list of important indexes for world-wide application because countries differ in their economic structure, in the stage of their economic development, and in the other data available concerning economic sectors which would give rise to a need for corresponding price indexes.

30. No single list of indexes resulting from the adoption of the sector approach is offered therefore. Instead, an account is given of the path by which a country, starting at the beginning, might develop its system of price index numbers stage by stage. It must be emphasized again that the compilation of index numbers stands apart from the collection of adequate price series. The recommendation to collect price series for the principal varieties of the principal commodities and to combine them into index numbers for those commodities holds good even if no other index numbers are compiled, and moreover, has priority over the compilation of other index numbers. If price series are collected on all important commodities, in general they
will provide sufficient data for the compilation of all the indexes suggested below. However, it might be necessary to supplement these price series by collecting data on one or more commodities which, though not of great significance in the economy as a whole, are important for particular index numbers either directly or as representing a group of commodities otherwise omitted.

31. A country starting out might first take a small number of significant broad sectors for instance, agriculture, mining and manufacturing, and compile output indexes for these three sectors, starting with the sector which is most important in its economy, e.g. agriculture in an agricultural economy, and manufacturing in an industrial economy. The commodities leaving the sectors would be included in the indexes, weighted by gross sales outside the sector; thus sales of, say, fodder or stud animals within agriculture would not enter into the agricultural index, but sales of foodstuffs and animals for slaughter, made to other sectors would be included. In all economies, an index for retained imports and for exports should have equal priority with these basic indexes.

32. The next step could be to compile output indexes for smaller sectors within the large sectors mentioned above; for instance, within manufacturing, for important individual industries. This would bring into the indexes a number of commodities which were intermediate in the broader indexes; and the weight for any commodity will probably change as the sectors become narrower.

33. In some circumstances a country might wish to vary the order of these early steps. For instance, an agricultural country, having compiled an index for agricultural output, might prefer to produce indexes for a few important industries first before attempting the development of a reasonably comprehensive index for the manufacturing sector as a whole. One of the most important advantages of the sector approach is that particular flow indexes have value even if broader indexes cannot be tackled.

34. The output indexes so far mentioned would include all goods sold by the sector concerned, whether for final domestic consumption, capital use, export or processing by other industries.
35. The following step might be to arrange the commodity series in order to compile an index of consumers' goods for home consumption. This would include both home-produced and imported goods. At this stage, the prices of home-produced goods would still be producers' prices, as in the output indexes referred to above. The weights, however, would be different from the weights in the output indexes, since they would refer to consumption. Not all the price series would enter into this index; for instance, no raw materials would be included. If possible, this index should be subdivided into various classes of consumption expenditure on commodities.

36. Next, a price index might be compiled for producers' capital equipment for the home market, including domestic and imported goods. The domestically-produced capital goods would still be valued at producers' prices. At the same time consideration could be given to the compilation of an output index for the construction industry.

37. The next stage could be to compile input indexes for the broad sectors and the individual industries for which output indexes were first compiled. These indexes would relate to goods for current production only, excluding capital goods; they would include goods of both domestic and foreign origin; and the prices used would still be producers' prices, not input prices, though the weights of course would correspond to the inputs.

38. All the indexes suggested so far, both output and input indexes, have been compiled from series of producers' prices. This is because, generally speaking, prices are easier to collect at this stage, when the goods enter wholesale distribution, than at a later stage, when they leave wholesale distribution. However, the input indexes (including the indexes for consumers' goods and for capital goods) should in principle be based on the prices paid by the purchaser, which will mostly be delivered prices, and therefore the input indexes based on producers' prices should be considered as substitutes for indexes based on input prices. At this stage, therefore, consideration might be given to two-stage pricing, i.e., collecting a second series of prices at the input stage. However, it is more difficult
to collect representative data at this second stage; in most cases, moreover, the movements of the prices for the same commodity at the output and the input stages can be expected to follow roughly parallel courses. In developing the programme, therefore, countries may wish to collect input prices, not for all commodities but for those for which the import price is most likely to diverge from the output price, e.g. commodities subject to indirect taxes or heavy transport costs.

39. A country wishing to go even further than two-stage pricing might consider the compilation, possibly annually, of separate sub-indexes for the flows between each pair of individual industries.

40. The general nature of the sector approach has been described and a scheme for developing index numbers according to this approach has been suggested. There remains for consideration the question of the significance of a general index of wholesale prices and the place, if any, which it should occupy in a system based on the sector approach. It is clear that a general index of the traditional type corresponding with the money value of all transactions in the whole or a part of the economy is incompatible with the sector approach. If this approach is accepted, a general index can only mean a weighted average of the indexes for some or all of the flows of goods constructed in such a way that each commodity receives a weight that is proportional to its "importance" in the national economy. This involves duplication in the sense that products and their raw materials are both included. Such an index therefore does not have the same economic significance as the constituent flow indexes since it is not the price correlative of any economic value flow. Many countries have nevertheless expressed the view that such a general index serves a useful purpose in summarizing wholesale price movements and in providing a yardstick, admittedly conventional, for the evaluation of price trends in various sectors of the economy.

41. Four different suggestions have been received as to the flows which should be included in a general index of the type discussed in the previous paragraph. These are to include respectively (a) all the flow indexes which a country compiles, (b) home produced goods - at all stages of production plus imported goods, (c) goods consumed at home - at all stages of production -
including capital goods, (d) goods produced plus imports plus goods consumed plus exports. The second of these would constitute a composite index for all commodities flowing into the channels of wholesale distribution; the third would cover all commodities flowing out of those channels to the home market; the fourth would include all commodities twice over, once when they flow into and once when they flow out of the wholesale distributive channels.

42. This question may well be considered to require further discussion. However, the development of a system of price indexes based on the sector approach is not dependent on a satisfactory solution to the problem, since, in this approach, even if it is decided that a general index serves a useful purpose, it is not the keystone of the structure. It is the indexes relating to major economic flows which assume primary importance.

43. The conclusions concerning the general index also apply to index numbers for groups of commodities constructed without distinction as to economic flow; conceptually the difference is only one of scope. Indexes for groups such as foodstuffs or textiles can be conceived as the weighted average of indexes for the relevant portions of a number of economic flows. For instance, a composite index for foodstuffs could be constructed from the relevant portions of the flow indexes for the output of agriculture, the input of the food processing industry, the output of the food processing industry, the input of food retailers, imports and exports, or from some of these flows. The same questions as to the significance and usefulness of such indexes arise.
SECTION V

REVISED DRAFT RECOMMENDATIONS

Part A

Draft recommendations are given in this part relating to the field to be covered, the collection of price data, indexes for individual commodities, the formula, the base period, and the frequency of review. They are the original recommendations (a) through (d) and (i) through (n) (quoted in Appendix I) as revised in the light of the comments received. It is expected that they will secure broad acceptance.

(a) Each country should institute a comprehensive system for the collection and publication of data on wholesale prices, including the compilation of an integrated system of price indexes.

(b) Conceptually the field to be covered comprises all prices in commercial transactions in goods except for prices received by retailers for goods sold to consumers and to service-producing industries. Thus it includes direct sales from one producer to another, from producers to retailers and consumers and from retailers to goods-producing industries. Prices of raw materials, semi-finished goods and finished goods should be covered. Transactions in titles to existing wealth are excluded, as are payments to factors of production. With this coverage, it is misleading to speak of "wholesale prices" and it is proposed to substitute "commercial prices".

(c) In principle, countries should collect prices at monthly or quarterly intervals on each commodity within this field which is important in the country's economy. It is not possible to give a general criterion for deciding what is "important".* Prices should also be collected for commodities which, although not of great importance in the economy as a whole, are important for one or more of the index numbers described below. One or more comparable quotation series should be collected.

* But as a general guide countries might use the list of 575 five-digit items in the Standard International Trade Classification for identifying commodities in order to decide whether they are important in the economy (not for grouping them).
for specified principal varieties of each commodity included in the collection programme. Strict standards should be maintained in the month-to-month comparability of the quotation series, which means that many will be relatively short-lived.

(d) In practice, the existence of vast numbers of varieties of commodities sold on different markets necessitates a drastic limitation by selection in formulating the price collection programme. For each commodity included in the programme, a selection has to be made among varieties, and for each variety, a selection among respondents. Further flexibility can be introduced by varying the frequency of collection within the month or quarter, according to the importance of the particular commodity and variety and the frequency and size of price changes.

(e) A selection also has to be made regarding the stage of distribution at which prices are collected, since for many commodities the price the producer receives is different from the price the retailer or the consuming establishment pays. Both these prices, and the intermediate prices, are of interest. It is suggested, however, that at first efforts should be confined to the collection of producers' prices for home produced goods and prices received by importers for imported goods. In cases where it is impossible to obtain representative data on producers' prices without undue expense, prices should be collected at the earliest stage of distribution at which representative data can be secured at reasonable cost. Second, priority should be given to the collection of separate and additional input prices (prices paid by consuming establishments, retailers, etc.) and for exports, f.o.b. prices.

(f) The quotation series for each variety should be combined into an index for that variety and the variety indexes in turn combined into an index for the commodity. These indexes should relate to producers' prices for home produced varieties and prices received by importers for imported varieties. The index numbers for the various commodities should be published. The weighting, though generally following the system indicated below, can be of a relatively rough character at these levels. If it is impossible to estimate even approximate weights, the indexes should be computed as unweighted averages of price relatives.
(g) All the indexes (including the indexes referred to in Section V-B below) should be weighted "gross" i.e. by the sales value, or value in exchange, of the commodities, as distinct from the value added in their production. Since the prices collected constitute only a small sample of the prices at which relevant sales take place, it is necessary to make extensive use of imputation at all levels in calculating the weights.

(h) The Laspeyres formula should be used for current indexes. When the weight base is changed, countries should consider using the Marshall-Edgeworth or Fisher's "ideal" formula to measure the changes between the old and the new base period.

(i) As a general rule, the base period for both weights and comparisons should be a single calendar year, though some countries may prefer to use a broader base for either or both purposes. The same weight base should be used for all price indexes. Except in unusual circumstances, the comparison base should be the same period as the weight base.

(j) A thorough review of all the indexes should be undertaken periodically at intervals of about five years or as often as data from a census of production are available if such censuses are only taken at less frequent intervals. Each of the basic series should be carefully examined and particular attention should be paid to possible changes in quality that may have affected the comparability of individual quotation series. Each index and sub-index should be calculated according to the Paasche formula and the results should be compared with those obtained by using the Laspeyres formula. The weight base should be changed if these checks indicate that this is necessary. It is suggested that if the results yielded by the two formulas differ by more than 5 per cent in the case of one or more of the indexes for major economic flows, serious consideration should be given to the advisability of changing the weight base. In any case, the same weight base should not normally be used for a period of more than ten years. Countries which have not yet adopted a post-war weight base should do so as soon as possible.

(k) If available resources permit, it is suggested that the continued validity of the weights should be checked at more frequent intervals -
say every two or three years - at least by the more advanced countries. Each index should be calculated according to the Paasche formula, using estimated weights if necessary, and the results compared with those obtained by using the Laspeyres formula. The weight base should be changed if these checks indicate that this is necessary provided that the results obtained by using the Paasche formula are considered reliable. If the Paasche indexes have been computed by using roughly estimated weights, it would be advisable in most cases to treat the results as a warning that the continued validity of the weights is open to question. A final decision concerning a change in weight base should probably be postponed until it is possible to carry out a detailed check based on data from a census of production or a broad survey of production.

SECTION V

Part B

45. In this part, draft recommendations are given relating to the system of index numbers (other than index numbers for individual commodities). They are based on the sector approach as outlined in Section IV above. The purpose is to assist the Commission's discussion by providing an alternative, in precise terms, to the original set of recommendations in this field, namely recommendations (e) through (h) of Appendix I. It is not intended to prejudge any conclusions which the Commission may reach about the validity of the sector approach as a basis for the selection of a system of index numbers.

(1) The commodity indexes should be combined into a number of indexes, which should be the price correlatives of important value flows between different sectors of the economy. According to their economic structure and the extent of their statistical resources, countries may wish to choose among the following types of index numbers:

(i) Price indexes for the output of broad goods-producing sectors, such as agriculture, mining, manufacturing, and, if possible, construction.
(ii) Price indexes for the output of important individual industries, including all goods produced whether for final consumption, as capital goods for other industries, for processing by other industries, or for export.

(iii) Price indexes for exports as a whole and for retained imports as a whole.

(iv) A price index for goods flowing to final domestic consumers, including home-produced and imported goods; if possible by classes of goods consumed.

(v) A price index for capital goods for the home market, other than construction; both domestic and imported goods should be included.

(vi) Price indexes for the input of the broad sectors and individual industries specified under (i) and (ii) above. These indexes should relate to goods for current production only, excluding capital goods. They should include goods of both domestic and foreign origin. If there is no output index for construction, a relatively high priority should be given to an input index as a partial substitute.

(vii) Price sub-indexes, possibly compiled annually, for the flows between pairs of individual industries.

(m) In principle, the output indexes should be composed of producers' prices and the input indexes of purchasers' prices. As mentioned in recommendation (e) above (Section V-A), however, first priority should be given to the collection of producers' or distributors' prices (or in the case of imports, the prices received by importers) so that in this stage of development both output and input indexes would be composed of these prices. The collection of separate and additional prices at the purchasers' stage should come later and at this point the input indexes can be composed of input prices.

(n) The coverage of the weights used for the indexes listed above should be as follows:
(i) Indexes of the output of broad sectors and individual industries - value of producers' sales to other sectors.

(ii) Indexes of the input of broad sectors or individual industries - cost of purchases from other sectors.

(iii) Indexes of capital goods and consumers' goods - cost of purchases by purchasers (in practice this is likely to be estimated from the value of producers' sales minus the value of exports plus the value of imports).

(iv) Indexes for imports and exports - the basis of weighting should so far as possible correspond with the nature of the current series used. The weights will presumably be obtained from the external trade statistics. If the series also are taken from this source, i.e. if they are unit values, no adjustments to the weights are necessary. If the series for imported goods are collected from the importers, the weights should be adjusted to the basis c.i.f. plus customs duties. No adjustment is suggested in the case of exports, even if the series consist of producers' or market prices.
SECTION VI

INTERNATIONAL INDEXES OF SENSITIVE COMMODITIES

46. No work has yet been done on this problem owing to lack of resources, although some valuable comments have been received. It is hoped to make a report at the next session.
SECTION VII
PROPOSED ACTION BY THE STATISTICAL COMMISSION

47. It is proposed that the Statistical Commission
(a) approve the revised recommendations given in Section V-A,
(b) take note of the differences in the views of countries regarding
the system of index numbers other than index numbers for individual
commodities,
(c) request the Secretary-General to undertake further discussions on
this question with national statistical offices and appropriate specialized
agencies with a view to extending the area of agreement, and to report at
the next session of the Commission,
(d) request the Secretary-General to draw up and issue a new technical
report embodying the recommendations approved by the Commission and
containing a statement of the principles involved in a system of wholesale
price indexes which, pending the results of his further discussions, should
be based on:

(i) commodity groupings suitable particularly for adoption by non-
industrial countries at an early stage of statistical development,
and

(ii) groupings by economic sectors suitable particularly for adoption
by industrialized countries and countries with an advanced
statistical system,

(e) give guidance on the treatment of the general index in the sector
approach,

(f) request the Secretary-General to study the special problems arising
in the pricing of services, and to submit proposals at a future session
of the Commission.
48. These recommendations consist of the conclusions of the technical report as
embodied in E/CN.3/125, which was submitted to the Statistical Commission at its
sixth session.

(a) Each country should institute a comprehensive system for the
collection and publication of data on wholesale prices, including the
compilation of an articulated system of wholesale price index numbers.
(b) Conceptually the field to be covered consists of all prices paid in
transactions between businesses, except transactions in titles to
existing wealth. Thus retail prices are excluded, as are payments to
factors of production. Prices of goods in all stages of production
should be covered. In principle the whole of this field should be
included or represented.
(c) Each country should publish a commodity composite price for each
3-digit group of the Standard International Trade Classification and for
5-digit items which are important in the country's trade, with sub-divisions
for commodities which are important in the individual country's economy,
although not separately distinguished in the SITC.
(d) Each commodity composite price series should be made up of a number
of composite price series for the principal varieties of the commodity
which in turn should be made up of a number of comparable quotation series.
Strict standards should be maintained in month-to-month comparability of
the quotation series, which means that many will be relatively short-lived.
(e) The commodity composite price series should be combined into a number
of index numbers. The main system should be according to a commodity
classification, and the SITC or a classification convertible into it is
suggested for this purpose. All the composite price series should be
combined into index numbers for the nine sections of the SITC. Within
each section, countries should compute index numbers for divisions of the
SITC which are important in the individual country's economy. The nine
section index numbers should be combined into a general wholesale price
index.
(f) Selected composite price series should be combined into a series of pairs of index numbers, one for products and one for materials used; and such a pair should be compiled for each important industry group in the country; the "major groups" of the International Standard Industrial Classification of All Economic Activities are suggested for consideration in this connexion, e.g. manufacture of textiles.

(g) The composite price series of finished products should be combined into indexes for (i) total finished products, (ii) domestic finished products, (iii) home consumption. Price indexes should also be compiled for imports and for exports. Countries may wish also to consider price indexes for commodities classified by stage of production and by use, but these should have lower priority.

(h) All the indexes should be weighted "gross", i.e. by the sales value, or value in exchange, of the commodities, as opposed to the value added in their production. The coverage of the weights in the various indexes should be as follows:

(i) in the index numbers for sections and divisions of the SITC, the general index, and in the indexes classified by stage of production or by use - the sales value in all transactions;

(ii) in the total finished product index - the sales value of production plus retained imports;

(iii) in the domestic finished product index - the sales value of production;

(iv) in the home consumption index - the sales value of production minus exports plus retained imports;

(v) in the import and export indexes - the sales value of imports and exports;

(vi) in the indexes for major groups of industry - the sales value of production (for products) and the cost (for materials).

(i) The Laspeyres formula should be used.

(j) The base for both weights and comparison should be a calendar year, and countries should consider adopting the year 1952 as the next base year.
(k) The continued validity of the weights should be checked annually by calculating the index according to the Paasche formula, with estimated current weights. The weight base should be changed when these checks indicate change to be necessary.

(l) At five-yearly intervals a thorough review should be conducted of the whole index. Weights and series should be examined, and particular attention should be paid to changes in quality of commodities that may have affected the comparability of price series.

(m) Countries should consider comparing the results of the Paasche with those of the Laspeyres formula, for the indexes for sections of the SITC and the other partial indexes, as well as for the general index.

(n) If there are significant seasonal movements in the prices and quantities of important commodities, countries should consider computing two indexes, one seasonally corrected and the other uncorrected.
STATISTICAL COMMISSION
Seventh session
Item 6 of the provisional agenda

WHOLESALE PRICE STATISTICS
(Memorandum by the Secretary-General)
APPENDIX II*

SUMMARY OF NATIONAL COMMENTS ON THE DRAFT TECHNICAL REPORT
ON STATISTICS OF WHOLESALE PRICES

SECTION I: SCOPE OF THE SYSTEM AND SOURCES OF INFORMATION

Benelux countries

1. Benelux regrets that the Commission did not enlarge its field of investigation, and in particular that it did not consider the general problem of studying prices of all goods and services. The proposal to exclude the price index of services from the system of wholesale prices is one of the consequences of limiting the scope. It cannot be denied that certain services, such as transport, insurance and financial services, are of great importance and consequently they ought to be included in the wholesale price system. Benelux realizes that the study of prices of services presents a number of complex problems, but would be grateful if the Statistical Commission would, at a suitable time, devote some special study to these problems.

2. It is advisable to limit the statistics of wholesale prices to the importation, exportation and production of merchandise, excluding wholesale traffic proper. Since the study of prices at the "wholesale trade" stage does not add any particular points of interest to the general study of prices, the incorporation of such prices in the general wholesale price system would involve considerable disadvantages. It would be very difficult, if not impossible, to take a census of wholesale trade transactions with an adequate degree of accuracy. By the same token, the study of prices at this stage of distribution would necessitate the use of numerous samples, since prices at the wholesale stage are much more dispersed than import, export or producers' prices. However, notwithstanding this general principle, it can be admitted that the price at the "wholesale trade" stage may be utilized provided that the data collected in this way are more representative than those obtained by the normal method. This is the case, for example, with the prices of cattle. In order to ascertain the changes in and the level of prices of cattle, one collects the prices of cattle on the hoof which are actually prices relating to transactions between middlemen rather than resorting to a very complex system of recording the prices of transactions between farmers and middlemen whose representative character would be indisputably less good.

* This paper consists of Appendices II, III and IV of document E/3144; for Appendix I, please see that document.
3. Benelux cannot agree with the proposal contained in the technical report for the exclusion of transactions between producers and consumers from the statistics of wholesale prices. Indeed, there are grounds for maintaining that the exclusion of such transactions would reduce considerably the significance of certain indexes. Is it not essential, for example, that the wholesale price index of finished goods of national origin should cover all prices referring to national production without excluding products that are delivered directly to consumers? In the opinion of Benelux, prices relating to transactions between producers and consumers should be included both in the retail price indexes and in the wholesale price indexes.

4. With regard to source of information (IV), Benelux notes that F.O.B. terms of sale are little used in European countries in price quotations for domestically produced goods (with the exception of exports) and suggests that in principle the prices of finished industrial products should relate to prices "at the factory".

Canada

5. Canada agrees with the conceptual outline of the wholesale prices field. Canada also agrees that commodities at all stages of production and distribution should be included and that retail prices, payments to the factors of production, and transactions in titles to existing wealth, e.g. real estate, should be excluded. However, prices at all stages of production cannot be included in many instances because of the varying degrees of vertical integration in industry.

France

6. France agrees with the proposed definition of the field to be covered by the index, but considers that the definition of wholesale trade needs to be made more precise in some respects. In particular, should producers' and other goods sold directly by the producing establishment be included or not?

7. France does not recommend that sales to public authorities should be used as a source of wholesale prices. Since such sales do not recur periodically, they cannot provide a regular source of information. Moreover, transactions of this type take place in practice outside of the normal channels of wholesale trade.

8. Import prices provided by importers should be treated with great caution, since these prices serve as the basis for the imposition of customs duties, at least in the case of commodities subject to duty.
9. The technical report does not say what should be done when there is no regularly functioning market or when two markets co-exist, one official and taxed, and the other free and clandestine. In the latter case, what prices should be used? To take into consideration only the official prices would certainly reduce the significance of the index; on the other hand, the inclusion of both types of price series poses very delicate problems of recording of prices and of weighting. (See also Section X, where they propose the exclusion from the general index of prices received by farmers for agricultural prices).

Western Germany

10. The report's delimitation of "wholesale prices" within the total range of prices does not seem to Western Germany to be very satisfactory. The report excludes services and "retail prices". In Western Germany's opinion, this delimitation does not correspond clearly enough with economic processes. Prices occur whenever economic units (enterprises) buy goods and services and sell their products and services. In the industrial sector, Western Germany observes the movement of prices in the latter process, i.e. the selling of goods and services by the producer, by calculating a producers' price index. The purpose of this index is to measure the movement of prices of industrial products at the point where they leave the industrial sector and enter distribution. Producers' price indexes for the other productive sectors are also in preparation. It is doubtful whether all these producers' prices can be properly described as "wholesale prices" since they partly relate to occasional manufactures and business transactions between industrial firms to which the usual concept of "wholesale trade", with which the idea of "wholesale prices" is connected, cannot be applied. In Western Germany's system of price indexes these producers' prices would be followed by "wholesale prices" proper, i.e. the prices paid by wholesalers in buying products or the prices they receive when disposing of their products, whether for further manufacture or to the retail trade. At the next stage come retail prices.
11. All of these prices correspond with the "input" on the one hand and the "output" on the other hand of each individual sector of the economy. The concept of "wholesale prices" employed in the report cannot be applied to "input" prices. The commodities consumed in agriculture, for example, include in many cases prices paid for the services of craftsmen, and in all sectors certain commodities, which are included in the costs of the enterprise, are bought at retail prices. For this reason also the distinction drawn in the report between "wholesale prices" and "retail prices" is not in Western Germany's opinion wholly significant from the economic point of view. If the "input" price indexes are to be limited to "wholesale trade" only, the series retained would be of little economic significance.

12. Thus, the limitation of the system to commercial transactions between businesses with the simultaneous exclusion of retail prices seems somewhat unfortunate, for Western Germany includes the sales of a retail dealer in transactions between businesses to the extent to which he disposes of his goods, not to private consumers, but to other businesses (e.g. restaurants, hospitals, craftsmen) for further processing. Such sales by retail dealers should not be excluded, particularly if it is desired to obtain complete "input" price series for individual sectors. The question of whether services as well as goods should be included is closely related to the question of the delimitations of the various sectors. This applies particularly to craftsmen and to the "input" indexes which are incomplete from the economic point of view if services such as repair and installations are excluded.

Ireland

13. The economically important value figures (of which the price indexes should be the "correlatives") may be regarded as those which would appear in a properly articulated series of social accounts. They are the value flows into and out of broad sectors of the economy. From this point of view the system of wholesale price index numbers may be conceived as those required to give quantum effect to the economic flows at wholesale. In principle, all commodities traded at
wholesale should be included in the wholesale price system, though here of
course countries will omit, as a matter of convenience, commodities of lesser
importance in preparing index numbers for particular economic flows. While
the usefulness of the general index and the indexes for major groups of
commodities is recognized, they are less economically significant than the
indexes for the different flows. They are the weighted average of the flow
indexes, and elements of arbitrariness necessarily enter into the weighting.
14. From the sampling point of view, a few price quotations from many
correspondents would be preferable to many price quotations from a few
respondents, but a certain sacrifice of principle must be made in the
interest of expediency.
15. The first sentence of the third paragraph of page 6 should be changed to
read: "It is concluded that the system of wholesale prices should in principle
extend to all commodities and relate to a sample of prices paid in commercial
transactions between businesses."

Scandinavian countries

16. Scandinavia agrees with the main principle in the report that the wholesale
price index compilations should cover the whole field in the sense that the
system should include prices in varying circumstances of sale, embrace different
stages of production and include the retained imports as well as the whole home
production for home consumption and for export.
17. With respect to prices in varying circumstances of sale, Scandinavia
suggests that the scope could be limited to the first and the last price in
wholesale transactions, as all prices, depending on characteristics of sellers
or buyers and place of delivery, must be between the first price (c.i.f. price
for imports and producers' price for home production) and the last wholesale
price (big consumers' and retail traders' purchasing price for home consumption
and f.o.b. price for exports). As it is rather difficult to establish to what
extent agricultural and industrial products are sold directly to the retailers,
Scandinavia thinks that the whole production for sale as shown in the production
statistics, including what is exported, and all the retained imports as shown
in the foreign trade statistics should constitute the weights for each of these
two "circumstances of sale."
United Kingdom

18. There appears to be no real reason to exclude retail prices from the system if, as may happen in particular cases, wholesale prices are not available. It should not be forbidden to include a price simply because it occurs already in an index of retail prices. Where, for example, products are sold by producers direct to the final consumers, their prices should be included in the output price indexes of the appropriate industries. This point is particularly relevant to countries where cottage industries are important. There is also no reason to confine the indexes to transactions between private businesses or to exclude government activities, either as producer or trader.

19. What is probably more important than anything else is to have accurate and detailed prices with continuous runs of comparable figures for individual commodities of all kinds. The preparation of indexes for groups of items is less important than the collection and publication of comprehensive information of this kind. Since, in any case, all the possible uses of group indexes cannot be known in advance, anyone who requires to do so should be able to combine the material to suit his own particular needs.

United States

20. The definition of the field to be covered would exclude transactions with governments. The US recommends that transactions between businesses and governments be included, and perhaps "scrap" should be mentioned as not being excluded.

21. If it is not possible to price or to estimate the price of military production items, it may be necessary to convert the general wholesale price index into an index of wholesale prices of civilian goods.

SECTION II: QUOTATION SERIES AND COMPOSITE PRICES

Benelux countries

22. The system proposed departs fundamentally from the usual practice, notably in the calculation of indexes on the basis of monthly comparable quotation series. The technical report does not discuss at all the problems of weighting involved in combining the quotation series into price series for commodities. In the absence of data on this aspect of the problem, it is impossible for Benelux to judge the value of the methods proposed.
23. With regard to the point in time to which the wholesale prices should refer, the report states that the term "price" will be applied to the price at which the seller is accepting orders "for earliest delivery". It seems to Benelux that this definition is rather inadequate. In fact, even if one accepts the proposed formula that the prices collected will be those for contracts "at earliest delivery" (as far as transactions relating to production and exportation are concerned), it is inapplicable in the case of imports. Benelux proposes, as far as imported goods are concerned, to collect their prices at the point at which they become available for the home market.

Canada

24. Canada agrees that strict standards for month-to-month comparability in quotation series should be maintained, but believes that the report underestimates the difficulties of maintaining such comparability, particularly with respect to finished goods. Also, Canada views as very difficult the problems of imputation, sampling and weighting related to the production of commodity composite price series.

France

25. The report recommends the collection of numerous quotations during the month for different varieties of the same commodity, but does not deal with the problem of the optimum volume of data that countries should endeavour to collect. Most countries will probably not be able to collect such an abundance of data as is recommended in the report. If they tried to do so, it would undoubtedly lead to a serious deterioration in the quality of the data. Less ambitious recommendations should be provided for the use of statistically less developed countries. The use of quotations for a fixed date in the month, such as the end of the month instead of a number of quotations throughout the month, would in itself substantially reduce the amount of work involved in the preparation of wholesale price indexes. This is the method used in France.

26. The concept of a composite price calls for serious reservations. Does the average price of coal have any very clear economic significance? These composite prices could not be compared directly from country to country because they would correspond with different average qualities in most cases.
Western Germany

27. Western Germany agrees that each commodity composite price series should be made up of a number of composite price series for the principal varieties of the commodity, which in turn should be made up of a number of comparable quotation series, but only provided that the concept of the "principal varieties" of a commodity is not stretched too far. In Western Germany's view, for example, it would be going too far to regard fluid milk, condensed milk and dehydrated milk as different varieties of the same commodity.

Ireland

28. The following sentence should be inserted at the end of the first paragraph on page 7: "It is at the variety level, with specification of circumstances of sale, that the wholesale price quotation becomes meaningful. The price of a commodity is an average of the price quotations of varieties."

Japan

29. It is virtually impossible to collect price data at every stage of wholesale trade. Therefore, a stage at which the price fluctuations will be representative of fluctuations at all wholesale stages should be selected, taking into account the nature of the marketing process for each commodity.

Scandinavian countries

30. With regard to the prices to be used in the wholesale price indexes, Scandinavia thinks that it would be more correct to use prices referring to terms of payment and delivery normal to the commodity concerned rather than to earliest delivery and cash payment. If possible, prices referring to orders accepted ought to be used, but some countries would prefer - at least for some commodities - to use prices referring to effected deliveries.

31. In the report it is explained on page 8 how the "commodity composite prices" are built up from quotations. In order to make it possible to construct different index numbers based on c.i.f., sellers', buyers' and f.o.b. prices, however, the units of the system must be "monthly comparable quotation series" of each one of these types for each commodity. If an index is computed for each of these price series, these index numbers can be combined into group indexes which would show the fluctuations in the different types of prices. The question about the quotation series being relatively short-lived could be solved by changing varieties and combining the index numbers by a chaining system.
32. The report proposes that average monthly prices should be compiled for each variety of commodity. In the main, Scandinavia considers this to be quite correct, but in order to reduce the work and thereby the cost of compiling the indexes, Scandinavia proposes that this recommendation should be less rigid so that countries that wish to do so can use - at least for some commodities - prices at a fixed day in the month.

United States

33. See comments on commodity composite prices under Section III.

International Labour Office

34. Many commodities, especially agricultural commodities, are resold a number of times during the marketing process before they reach the retailer or consumer. At least three principal wholesale price levels can be distinguished: the producers' wholesale price, the price determined at the central market by active bidding between numbers of buyers and sellers, and the final wholesale price paid by the retailer.

35. The existence of a number of levels of marketing at which transactions take place is important because price movement as well as price level vary from stage to stage within the broad and loosely-defined area known as the wholesale market. Price fluctuations at the primary and final wholesale levels often bear little relation to each other, e.g. wheat and bread.

36. Hence, for purposes of homogeneity of the thing measured, it is desirable to adjust index numbers to correspond with the stratification of the market with respect to price movement, because no single index can be a valid indicator of the movement of the several price strata of the wholesale market.

International Monetary Fund

37. All through the report the experts put considerable stress on the importance of collecting appropriate absolute prices and on publishing them. The Fund wonders, though, whether it should not be urged that the proposed publication of absolute prices should take place at a lower level of aggregation than is proposed in the draft resolution. It would seem preferable to recommend publication of a "monthly comparable quotation series" rather than of the "commodity composite price series" which is much less usable for international comparisons.
SECTION III: CLASSIFICATION

Austria
38. It is not yet entirely clear whether the SITC should be used as the basis for classifying wholesale prices or whether a separate classification should be drawn up. Austria is rather of the opinion that the SITC should be used and would welcome such a move, particularly since they plan to draw up the commodity list for the collection of production statistics on the basis of this classification. This list will be used in collecting current production data and in taking the production census.

Benelux countries
39. The use of sections of the SITC does not seem to Benelux to be sufficiently justified. Although it is true that its use assures a certain degree of comparability from the international point of view, the sections encompass such heterogeneous commodities that the price indexes for the sub-divisions would have no meaning. What, for example, would be the value of the price index for the goods section which includes sardines together with cattle for slaughter?

Burma
40. Strict adherence to the SITC for price collection will not be possible, although Burma has adopted the SITC for trade purposes. However, efforts will be made to conform to the SITC as far as possible when a system of wholesale price collection is instituted.

Canada
41. Canada agrees in principle with the publication of commodity composite prices for each 3-digit group of the SITC and for the 5-digit items important in the country's trade. However, it would be impossible to carry out the publication programme recommended at this time even if the data were available. Government statistical agencies are faced with repeated economy measures which clash directly with systematic publication programmes designed to build up good detailed records. Much greater demand exists for quotations on well-defined varieties than for prices of 3- and 5-digit composites.
42. Publication of composite price series and price indexes each month for individual commodities is a most desirable objective, as is the publication annually of composite price series for different varieties, sources of price information and the results of Paasche tests. Consistency and completeness of published data depend upon the size of operational budgets.

France
43. About 70 of the 150 3-digit groups of the SITC are not represented in the French index of wholesale prices. This situation is due to (a) evident gaps in the coverage of the French index due mainly to the great difficulties involved in the collection of data for certain sectors, (b) the absence of products that have only a very small importance in French wholesale trade, (c) the exclusion of products in cases where it is doubtful whether they should be included in wholesale trade or in retail trade.

44. The principal objections that one can raise against the use of the SITC for the classification of an index of wholesale prices are that some groups are not very homogenous and that the pyramidal system which flows from the nomenclature may be far from having a clear significance from an economic point of view.

Western Germany
45. In Western Germany's opinion, the question of classification requires careful consideration, not only in relation to price indexes, but generally. The contrast between a commodity classification and an industrial classification drawn in the report is considered to be rather unfortunate, since the factors involved are quite dissimilar. Commodities can be classified with reference to very different criteria, and one of these criteria is the origin of the commodity in a particular branch of industry which is practically classification by production technique. Commodities can also be classified by stage of production, use, animal, vegetable or mineral origin and from numerous other standpoints.
46. In constructing its producers' price index, Western Germany began by classifying commodities by the branch of industry by which they were wholly or chiefly supplied, and then weighted the index by the sales value of the products of the branch of industry concerned. Plans are being made to classify the same goods and price series according to other criteria, and in particular by use. In this case it is considerably more difficult to obtain a basis for weighting. Since the same commodity can be used for different purposes, the results of input-output studies are required to devise a suitable system of weighting.

47. Western Germany realizes that for the time being the SITC is the only available international commodity classification, but does not think that this system, which was prepared for the purposes of foreign trade, is particularly well adapted to the investigation of production and price relations. What is required is a commodity classification based on economic considerations which would be applicable to production statistics and to foreign trade. Since different sections of the SITC are based on different principles of classification, it is felt that, for purposes of price statistics, the SITC should be regarded as at best a list and not as a classification for the preparation of price statistics. A grouping of commodities by branches of industry would correspond to the structure of domestic production, and it seems more important to make such a grouping than to base all price statistics on a classification intended for foreign trade, since in most countries foreign trade represents only a fraction of total production.

48. Western Germany agrees that each country should publish a commodity composite price for each 3-digit group of the SITC and for 5-digit items which are important in the country's trade as a goal to be aimed at in the future, provided that in this connexion the SITC is regarded only as a list of commodities, and not as a classification of commodities suitable for price statistics. In practice, however, owing to the expense and labour involved, it will still be a long time before prices can be covered in Western Germany on the broad basis the SITC list proposes.
Ireland

49. The first paragraph of this section should be deleted, and the following substituted: "The viewpoint taken in this report is that it is only the wholesale price indexes relating to economic flows (e.g. imports, exports, total production, materials for all productive activity, consumption, input and output of agriculture, input and output of major industrial groups) which are economically significant. For each of these flows, however, a commodity classification is essential. The commodity classification assumes significance only when related to the appropriate economic flow. There will accordingly be several average prices for a given commodity - one for each flow - from which price indexes can be computed for groups of commodities. The index numbers for a given group of commodities, e.g. chemicals, one for each flow, can be combined into a single index for the group of commodities, and these, in turn, can be combined into a general wholesale price index. It is essential to insist, however, on the fact that price trends of individual commodities and of commodity groups (including the group of all commodities) can only be derived as weighted averages of the relevant flow prices or indexes, and that, in the weighting, there must intrude an element of arbitrariness which is absent from the individual flow indexes. The weighting must, in fact, be based on the volume of commodities exchanged. It is essential to insist on the fact that in principle there is no ambiguity about the concept of flow indexes - the difficulties are purely statistical. Geometrically, one can envisage a closed boundary around each great sector of the economy, and the weights of the flow indexes can be envisaged as the values of the commodities passing in and out across the boundaries in a given period, say a year, or average of a series of years. On the other hand, there are no boundaries if the exchange principle be adopted. One can conceive of an index for a commodity group (without distinction of flow) as the weighted average of all transactions in the group, but how are the weights to be derived? If a commodity changes ownership ten times, including commercial as well as industrial exchanges, should it not be separately weighted for each such exchange? The resulting commodity group index will vary according to the number of imputed exchanges, and this is where the element of arbitrariness enters."
50. Since the statistical authority will be expected to produce commodity group indexes as well as a general wholesale price index, his best course will be to produce a weighted average for the group, the weights being those of the different flows. He should, however, be aware of the limitations of the resulting group indexes, in that he has had to ignore, in his weighting, transactions within the boundaries of the economic sectors. He should accordingly be slow to describe his final index as measuring the purchasing power of the currency unit for goods exchanged at wholesale without advertsing to its limitations. He will perhaps find his conscientious justification for producing these commodity group indexes at all in the fact that there will normally be a sufficient similarity in the trends of the group indexes for the different flows to render meaningful an average of them. To the extent to which the several valid indexes differ, his commodity index will be imprecise, i.e. it will be influenced by the arbitrary selection of weights adopted.

Japan

51. Japan does not consider it useful to publish the composite price for each 3-digit group of the SITC, even if the composite prices are computed in the process of constructing indexes by the aggregative method. Japan prefers to publish indexes for individual commodities and commodity groups.

52. If there is no pertinent standard classification other than the SITC, there is no choice but to make use of this classification.

Scandinavian countries

53. As mentioned in the Summary (point 11), price data obtained in confidence cannot be published. Irrespective of what value there can be in publishing a "commodity composite price" for each commodity, it would not be possible for the Scandinavian countries to publish such prices, as prices are mostly obtained in confidence.

54. Scandinavia agrees that the general wholesale price index should be divided in the first instance into nine sections according to the SITC, and that division and sub-division index numbers for some - but not all - of the divisions and sub-divisions of the SITC should also be computed.
55. Scandinavia does not agree that each country should publish a commodity composite price for each 3-digit group of the SITC, and for 5-digit items which are important in the country's trade. Scandinavia does not favour publication of prices for individual commodities.

United Kingdom

56. The UK considers a classification by commodities to be of much less interest than a classification by industries. There is no general system of classification of commodities in which most of the groups would be regarded by economists as having any real significance. The SITC was not drawn up with this object in view, and its function was simply to provide a uniform method of ordering statistics of international trade. Therefore, the UK does not believe that the SITC should form the basis of a complete set of price indexes. A wholesale price index would not necessarily be wanted for every 3-digit group of the SITC, since these groups are not ipso facto "the correlative to economically important value figures". The same applies to the single digit headings of the SITC.

57. The method of classification adopted should be the most appropriate to each particular index. A system which is suitable for classifying exports may not, for example, provide the best system of classification for consumption goods. In short, the method of classification should be subordinate to, and should not be allowed to determine, the purposes of the group indexes.

United States

58. There should be a standard classification for international comparisons. While the US does not find it practical to use the SITC, the classification used will permit conversion for purposes of international comparisons. Indexes could be presented for most of the 3-digit classes of the SITC.

59. A proposed "economic classification" which US government agencies believe to be of greater value for many of their analytical purposes than the more traditional scheme of classification is being developed.
60. Commodity composite prices should not be published as absolute figures. If these are not published, it may become more important that commodity sub-group indexes be published, which would merit their having higher priority than they are given on page 19.

Food and Agriculture Organization

61. The FAO believes that the SITC makes a good framework of reference for the calculation of index numbers of wholesale prices. However, they question the feasibility of a rigid application of the SITC classification by under-developed countries, and suggest that some simplified classification, possibly on a regional basis, might be developed for use by these countries.

SECTION IV: THE SYSTEM OF PRICE INDEX NUMBERS

Austria

62. Austria is of the opinion that the preparation of a general wholesale price index is essential, if only for domestic reasons.

Benelux countries

63. As far as the systems of price indexes for finished products and products entering into external trade are concerned (page 14 of the English text), Benelux proposes to limit the number of indexes to four, namely:

a. Wholesale price index for goods for home consumption (with sub-divisions for raw materials and other products) for which the coverage of the weights would be domestic production minus exports plus imports.

b. Index for domestically produced goods for home consumption (with sub-divisions for raw materials and other products) for which the coverage of the weights would be domestic production minus exports.

c. Price index for imported commodities with the same sub-divisions.

d. Price index for exported commodities with the same sub-divisions.

64. This modification of the programme proposed by the United Nations Commission is justified, in the opinion of Benelux, by the fact that it is illogical to combine in a single index (that of the wholesale prices for all finished products and that of the wholesale prices for domestic finished products) prices relating to two clearly different markets, namely the domestic market and the export market. On the other hand, it is useful to compute a special index
reflecting changes in the prices of domestically produced goods for home consumption. The scheme of priorities outlined on page 19 of the report appears to have been inspired mainly by preoccupations concerning the international comparability of the indexes. It could be followed to the extent that it does not conflict with national needs of over-riding importance.

65. There remains the question of calculating a general index of wholesale prices. On this question, Benelux is in agreement with the opinion expressed when the United Nations Commission examined the report that this index does not have any significance from an economic point of view, that consequently its calculation would not have any practical interest, but would, on the contrary, raise many difficulties. If, however, it is thought useful to have a detailed index which combines the price movements of a large number of commodities of importance to the national economy, preference should be given to a wholesale price index of goods for home consumption.

Canada
66. Canada agrees that each country should have a comprehensive system for the collection and publication of data on wholesale prices, including the compilation of an articulated system of wholesale price index numbers. Current expressions of Canadian interest in the field are concerned also with a number of special purpose indexes which would not form integral parts of the articulated system outlined, e.g. residential building materials.

67. Canada agrees in principle to the combination of composite price series into nine sectional index numbers corresponding to the section headings of the SITC. However, these composites will be much less useful than some of the more clear-cut divisional index numbers which can be computed within the SITC framework.

68. Canada agrees as to the usefulness of combining composite price series into pairs of index numbers, one for products and one for materials used in the important industry groups of the country. Such price indexes could be used for a production index computed according to the "Geary" formula. Canada has applied the Geary formula on twenty industries out of 140 industries in the industrial production index. It is planned to extend this use of wholesale price data.
69. Canada would like to combine composite price series for finished products into index numbers for total finished products, domestic finished products, and home consumed finished products and to compute price indexes for imports and exports. However, it will be a long time before it is possible to develop the composite price series required for this project. It is felt that the report may be under-estimating the difficulty of producing a systematic body of composite price series for finished products. Further, on the basis of requests that have been received, price index numbers for the above groups would not have a high priority rating.

**France**

70. In view of the great utility of the group indexes, it would seem that the principle of the priority of these indexes should be recognized. In particular, if the integration in the general index of an interesting group index should involve some conflicts with the requirements of the general index (for example, in order to adapt the weights to the needs of the general index), one should rather leave it out of the pyramid or else distort a little the weights of the general index in order to have a good group index.

71. The general index as it is conceived in the report is endowed with economic significance, since it makes it possible, when indexes of retail prices, wages, services, etc., are added to it, to evaluate changes in the monetary needs for the totality of transactions when the level of activity remains unchanged. In any case, one cannot see how the government could discontinue the publication of a general index when, as in France, it is used in many contracts.

72. France does not see why the collection of prices for semi-finished goods would pose particular difficulties when they correspond with actual transactions. In France, it is rather the prices of finished products that are difficult to obtain, so much so that these products have had to be excluded from the index in most cases. In France, the large wholesale firms refuse to give any information on the prices of fabricated products.
73. The construction of pairs of indexes for the finished products of, and materials used by, important industries present very delicate problems. Many industries use a great variety of raw materials. It is necessary, before calculating the indexes, to make a thorough study of the industry. Such pairs of indexes should only be calculated if the available data are such as to permit the satisfactory representation of all the raw materials and finished products of the industry.

74. The report envisages an index for standard staple commodities designed to facilitate international comparisons. This would seem to be a not very correct way of simplifying international comparisons of price levels which are evidently of a complex nature because of the diversity of economic structures among the countries of the world. What would be the significance of such an index? It would without doubt be very little representative of the phenomena that it would purport to measure.

Western Germany

75. Western Germany strongly endorses the view expressed in the report that there can be no "general purpose" or "all-purpose wholesale price index", and that it is a mistake to use an index based on wholesale prices as a deflator for national income or other value aggregates. The question of whether a general wholesale price index can be calculated at all thus depends, as the report rightly points out, on what in particular it is desired to measure. Western Germany intends to calculate a general producers' price index from the producers' price indexes for the individual sectors of production. This would reflect the movement of prices in domestic production, by prices being meant in this context only prices for the "output" of the productive sectors.

76. It is felt that the economic situation to be measured by the total finished product wholesale price index is not clearly enough defined. This is due to the fact that the expression "finished products" is sometimes used to refer to the last stage of a classification by stage of production and sometimes as synonymous with "ready for consumption" and therefore as relating to a category in a classification by use. This results in the somewhat singular situation
that agricultural products which are delivered for use without processing and are therefore "ready for consumption" are to be regarded as "finished products", as are exported raw materials and semi-finished products. These last are not finished products from the point of view of stage of production, but form a special group, goods for export, within a classification by use. If the total finished product wholesale price index were to include all goods which do not undergo further domestic processing, it would be acceptable. In that case, however, it should include goods ready for use, such as capital goods, as well as exported raw materials and semi-finished products. This index would then reflect the price movements of goods which finally leave the productive sector and, for the purposes of such an index, prices must be regarded as those that are paid to the producer. In Western Germany's system, this index is part of the total producers' price index for all sectors of production in which goods consumed at home and exported goods are classified on the following general lines:

(1) Domestic consumption.
   a. Goods to be further processed or to be used intermediarily in production.
   b. Goods not to be further processed.
      i. Capital goods.
      ii. Consumer goods.

(2) Exports (same classifications as (1)).

77. The same considerations regarding the delimitation of the field also apply to the "home consumption wholesale price index". The expression "home consumption wholesale price index" is not sufficiently clear. Western Germany does not agree that such an index would reasonably represent the last stage before retail prices. Such an index would have to include producers' prices in cases where products are sold directly to the retail trade, and in so far as products are sold to wholesalers, the wholesale represents the last stage before retail prices as far as such home products are concerned. As its name implies, a "home consumption" index should in general be regarded from the point of view of the consumer and not from that of the producer. The result is therefore a price index for goods going into use, and for the purposes of such an index, the prices paid by the consumer seem more important than that vague intermediate stage, the so-called last stage before "retail sales".
78. If need be, it might be possible to tackle the economic problem of the differing price developments of imported goods and domestic production as follows: In calculating the price indexes of goods classified by use, the home produced capital goods and consumer goods could be taken first with exports deducted, and then, with the similarly constituted imports added, the latter at prices paid by the wholesaler for the goods concerned, thus providing a parallel with the producers' prices of domestic goods.

79. Western Germany attaches considerably more importance than is indicated in the report to classification by use, mainly because great importance is attached to the classification of industrial production by use. The difficulties are great, but not insurmountable, particularly if the distribution of commodities by use in a price index is required in the first instance only for the purpose of fixing weights in a base period. This whole problem is of considerable importance in view of the need for price deflation in calculating the social product. The classification of goods by use is a problem which largely coincides with that of establishing the use of the national product. In this connexion, therefore, all proposals for classification should be in close correspondence with the CEEC proposals relating to the Standardised System of National Accounts.

80. On the whole, Western Germany is in agreement with the classification by use proposed on page 18 of the report, although it is felt that the division should be made immediately after item 1.i. From the point of view of the use of the social product, 1, ii, and 2, should be closer together. These are goods which are not to be further processed, and are ready for installation in industry or for use. In sub-dividing consumers' goods, it is desirable to distinguish further between the so-called "consumers' capital goods" and goods to be used for current consumption. This also makes it possible in this particular case to include "producers' capital equipment" and "consumers' capital goods" in a single group. This is of importance if, as the United Nations recommends, building is included in industrial production. Dwellings are not "producers' capital equipment". There is, however, little point in including them with "consumers' goods" in the group "other goods ready for consumption".
81. Western Germany does not attach much value to the so-called index of sensitive commodities. At a time when in many countries a number of prices are fixed or affected by measures of the most varied kinds, it would seem difficult to make a selection of sensitive commodities. Such a selection could in any case be based only on experience. The goods which might be included under such a heading can hardly be defined as a significant economic group.

82. Western Germany agrees that selected composite price series should be combined into a series of pairs of index numbers, one for products and one for materials used, and that such a pair should be compiled for each important industry group in the country. The provision of weight data for the "input" series is, however, a very difficult problem.

Ireland

83. This whole section should be redrafted to accord an absolute primacy to the economic flow price indexes as correlatives to the economic value flows with a forthright explicit statement at the outset that the traditional general indexes and indexes for economic groups become economically significant only in relation to flows. This will involve changing the order of the sub-sections so that the indexes relating to commodity groups and the general wholesale price index come last in order.

84. The following paragraph should be inserted at the end of sub-section (d) on page 17: "The view taken in this report is that the economic flow price indexes should be computed as correlatives of the corresponding value flows. The ultimate objective will be to produce volume flows as the quotient of value indexes by suitable wholesale price indexes, though it is recognized that this ideal is remote as matters stand. For some time to come, countries must be content with volume indexes computed implicitly or explicitly from unit values which are the quotient of commodity values by quantities imported, exported, produced or used as materials. It is necessary to recognize clearly that unit value indexes are merely imperfect wholesale price indexes. If it were possible to determine economic flows in terms of varieties (differentiated by conditions of sale) as well as commodities, the unit values would be identical with wholesale
prices. This is not possible. Unit values indicate price trends only
imperfectly because the varietal content of the commodity is constantly changing
so that a change in unit value may be as much due to a change in variety as to
a change in price. The unit value index has the great advantage that, in
principle, it covers the whole field; whereas in the case of the wholesale
price index, while the commodity coverage may be conceived as complete, it
is necessary to rely on merely a sample of prices of varieties."
85. It is always well, however, to bear in mind that economic flow
wholesale price indexes are designed ultimately not merely as correlatives of
value flows, but to deflate these value flows to produce volume indexes. Commodity
value flows, as distinct from quantity and price, are the only "certainties" in
the equation \( PQ = V \). The problem of the index number maker is usually the
factorization of \( V \), given unambiguously, into \( P \) and \( Q \). From this point of view,
countries should favourably consider the computation of wholesale price indexes
for commodity groups (say 1-digit SITC groups) for each economic flow with a
view to the computation of general volume indexes as the sum of the volume
indexes for the commodity groups. The maker of a volume index for a general
economic flow may well have qualms about defining his volume index as the quotient
of the general value flow by the general wholesale price index for the flow,
especially if his price index is a base-weighted Laspeyres (so that his volume
index so defined is in principle a Peasche) and conditions may have changed since
the base period. His objections will be less if he proceeds by way of commodity
groups and still less if he uses individual commodity values and prices.

Japan
86. Japan recognizes the usefulness of pairs of index numbers, one for products
and one for materials used, for important industry groups, but points out that
there are difficulties in obtaining the necessary statistical data.
87. A more accurate definition of "finished products"is necessary. An explanation
of the significance of the indexes for (1) total finished products, (2) domestic
finished products, and (3) home consumed finished products should be given. It
is not clear how such indexes should be compiled, and whether or not their
compilation is desirable.
88. There is some difficulty in classifying commodities according to stage of production, use or purpose with theoretical strictness, but it can be done on a common-sense basis. Therefore, the construction of price indexes for commodities classified by stage of production, use or purpose is desirable.

New Zealand

89. New Zealand has not regarded the export and import price indexes as subdivisions of the wholesale price index. The export and import price indexes are currently being revised. They are being considered together in relation to the balance of trade, and are also to be tied respectively to export and import volume index numbers.

90. New Zealand has not troubled about index numbers of prices of finished goods. New Zealand is a small country, and not characteristically a manufacturing one. In connexion with the index of the volume of factory production, some indexes of prices of materials and products have been prepared for deflation of values in industries where quantities are not available. Efforts are being made to carry this further, in the hope of ultimately covering manufacturing generally, but the project is not yet very far advanced.

Scandinavian countries

91. The general wholesale price index that covers the whole field should be divided into nine sections according to the SITC, but the index for section 8 (miscellaneous manufactured articles) should be published only if a sufficient number of price series is available. Division and sub-division indexes for the more important divisions and sub-divisions should be computed on the same basis as the indexes for the nine sections. Thus a general conception of the fluctuations in wholesale prices in different areas of commodities will be available. Division and sub-division indexes for the various

92. The general index should be divided into the following major components: imports, home production, home consumption (including what is purchased by agriculture and industry) and exports. Countries that have been publishing indexes for any of these four components must be able to compare their present indexes with the new ones. All other indexes should be related to these four components.
93. Scandinavia would hesitate to include in a minimum programme the pairs
of index numbers for important industry groups proposed in the report, even
though they are very interesting. It would be difficult, if at all possible,
to fix the correct weights for these indexes, and as regards the material part
of the pair, to find a sufficient number of these commodities which do not
constitute raw materials for producing the end products of the industry group.
Furthermore, it might be difficult to obtain permission from the industry
concerned to publish these indexes. As an alternative, it might be recommended
that countries publish special indexes for different industry groups, which
would be sub-divisions on the one hand of the index for home production, and
on the other hand, of the index for raw materials for further production
mentioned below. The special index for construction materials might suitably
be put in here. A sub-division of the indexes for exports and imports into
industry groups might also be of interest, but again these indexes should not
be included in the minimum programme.

94. Scandinavia agrees with the views expressed in the report that special
indexes for finished products might be useful, but in view of the definition
of finished products given on page 15 of the report, there seems to be little
difference between these indexes and those for consumers' goods. There might
be mistakes and confusion between these two types of index numbers. Therefore,
it is felt that the publication of indexes for finished products should not
be included in the programme, and that if such indexes are nevertheless
published, they should refer to home production and to imports, but not to home
consumption. Furthermore, a special index for total finished goods constructed
as a sub-division of the general index, i.e. including both types of prices and
imports as well as exports, would not be of any special interest.

95. Scandinavia thinks that the minimum programme should include a recommendation
that all commodities for home consumption should be divided into three groups
according to use, as follows: materials for further production, capital
equipment, and consumers' goods. In order to avoid complications, it is proposed
that the index for capital equipment should include all commodities in section 7 of the SITC, even though some commodities in this section are consumers' goods. The two groups of materials for further production and capital equipment cannot, as proposed in the report, be combined in one joint heading, producers' goods. With regard to the difference between materials and consumers' goods, it might be difficult to know how to classify some commodities. The report suggests that in such cases commodities should be classified according to their most important use. It is proposed instead that such commodities should be classified both as materials and as consumers' goods, the weight being divided in accordance with the proportions estimated to be used for further production and for consumption respectively.

96. Scandinavia thinks that it would be of interest to divide home produced goods according to stages of production. Since no classification by stage of production is available in the SITC, the League's Minimum List, Annex I-C, could be used. A similar division of imports counted c.i.f. would also be useful.

97. There is one other special index that is recommended for inclusion in the minimum programme. This index would show the fluctuations in the prices of home-consumed goods produced in the country. Since it would probably be of interest mainly from the point of view of consumption, it is suggested that it should be part of the index of home consumption, but it could as well be a part of the index for home production.

United Kingdom

98. The sections that deal with price indexes for groups of commodities contain too many recommendations. Some attempt should be made to assess the relative importance of the various types of group indexes whose calculation is proposed. This would be facilitated if the paper began with a thorough discussion of the fundamental objects of price indexes and the main practical purposes for which they are required. Until these purposes are set forth precisely, it is impossible to decide on the most appropriate methods of constructing and grouping the indexes.
99. The United Kingdom does not believe that a general wholesale price index embracing goods at all stages of production, and consequently involving a great deal of overlapping and duplication, would answer any specific practical needs. An index of this kind, based on gross prices of all goods, would be affected by the degree of integration of each industry and the number of times which each commodity changes hands. Since the concept of the value of money in general is no longer thought to have any real economic significance, there does not seem to be any practical need for a general wholesale price index, unrelated to any clear economic concept and possessing no value correlative.

100. The proposal for a general wholesale price index is linked to what is called a "nicely articulated system of indexes". Whatever method of classification is adopted, such a system does not seem to have any theoretical justification or to satisfy any practical needs. Any group of commodities that is selected should rather be considered on its own merits, and one should be certain that the groups, as such, correspond to recognized economic categories.

101. The United Kingdom suggests that the following indexes would answer very important practical purposes:

(i) A set of price indexes for individual commodities covering materials, intermediate and finished products.
(ii) Price indexes of the output of all important industries.
(iii) Price indexes of the input of each industry covering all purchases from other industries which contribute to the industry's current output.
(iv) A price index for the output of manufacturing industry as a whole, and another for the input of manufacturing industry as a whole.
(v) Price indexes for the following broad economic categories:
   (a) All consumer goods sold to the home market.
   (b) All capital goods sold to the home market.
   (c) All exports.
   (d) All imports.
102. The United Kingdom considers that the main source of data for indexes of import and export prices is bound to be the trade accounts. Price indexes compiled from this source are essential for the interpretation of trade statistics, and it is not easy to compile import and export price indexes from any other source. The United Kingdom therefore would not at present support any general recommendation to compile import and export price indexes from sources other than the trade accounts.

103. The indexes for very broad economic categories, such as those suggested in Section IV (d), are more ambitious than anything of which the United Kingdom has yet had experience. It is doubtful whether regular indexes are required for large categories, such as total (or domestic) finished products of all kinds. Therefore, a general recommendation for the regular monthly compilation of indexes for any groups broader than those mentioned above should not be made.

United States

104. The United States proposes to continue compiling a general index. It is so widely accepted that it serves as a useful framework and goal for the collection and compilation of non-retail prices. However, it would seem that a more critical appraisal of the value of such an index would be useful. What is the purpose served by summarization of all wholesale prices into a single figure? It may be that this purpose could be better served by summarizing wholesale prices into two or three more meaningful totals instead of a single index of ambiguous significance.

105. If the suggested indexes of the prices of products and materials used were designed as a measure of input-output relations, they would have considerable analytical value. However, it should be pointed out that none of these indexes are by-products of the preparation of the proposed general index, and that considerable additional price and weight information would be required for the calculation of the indexes. It is doubted that price series collected for general index purposes would be comprehensive enough to provide these indexes, or that the weighting pattern could be determined by production information needed for the general index.
106. In the case of an index of prices paid for materials used by a given industry, prices from highly integrated organizations would not be available, since values assigned inter-plant transfers are ruled out in the recommendation that prices should relate to commercial transactions between businesses.

107. Great caution is necessary in the interpretation of changes in margins between broad divisions of economic activity, such as agriculture and construction, and of changes in margins between indexes of sub-groups in the wholesale and retail fields. Indexes may be compared with each other to provide general indications, when used in conjunction with other data, of the relationships between prices in various sectors of the economy, but it is not possible to use pairs of indexes to make any detailed or precise determination of margins.

108. Special purpose indexes should be prepared for segments of the economy in which there is a local interest. The US does not necessarily agree with the priorities assigned on page 11 and conclusion (g). A question may be raised as to whether the United Nations should make any general recommendations on which indexes should be prepared or their relative priorities except separately for each of several types of economies.

Food and Agriculture Organization

109. Conclusions (i) through (z) are somewhat rigid in the case of under-developed countries. FAO recommends a reduction in the number and type of subsidiary indexes that countries should be asked to calculate.

110. FAO looks forward with great interest to the proposed study on the problems of establishing price indexes of sensitive commodities for international comparisons; problems with which it is very much concerned.

International Monetary Fund

111. Unit value indexes. The objections raised against these indexes on page 5 of the report are, of course, correct, but it should be realized and expressed in the recommendations that for a long time to come these may be the only data on the prices of imports and exports which will be available, and that it is therefore important that countries make these indexes as good as they can possibly be. These indexes are also seriously subject to rapid fluctuations in weight,
due to seasonal and other factors, even more so than the agricultural and other indexes mentioned on page 28. The reference on page 28 should be amplified to cover this point. In view of the manner in which these indexes are now almost universally obtained, namely by dividing a value index by a volume index, they all have Paasche weights. It follows that they are virtually unusable for short-term fluctuations, as they are heavily affected by seasonal factors and (at least for the smaller countries) by the accidental arrival of ships with particular cargoes. The proof of this proposition is in the extreme monthly fluctuations which these indexes show for many countries. The terms of trade which are often computed on the basis of these indexes are, therefore, equally (or indeed even more) unreliable.

112. It is most important that the Commission should recommend specifically that countries change their practices with respect to these indexes at once. This is a case where all the basic material is available (although it may not be all of perfect quality) and where the inadequacy of the indexes is mainly due to the use of an ill-advised formula. The Commission should, therefore, recommend that countries which compute unit value indexes of trade should use the Laspeyres formula, and that they also compute the "error term". Where this recommendation is not practicable, countries should at least follow the advice of para. 2 on page 32, i.e. combine indexes for groups of commodities computed by the Paasche index by aggregating them with Laspeyres weights. A general recommendation by the Commission on unit value indexes is considered of extreme importance for the reasons set out above, and the results of this might be greatly beneficial to the Fund's work in the very short run if countries heeded the recommendation.

113. Standard staples index. The Fund realizes that the question of sensitive commodities is held over for further study. Here again publication by many countries of prices of as nearly possible identical commodities would appear to be more important than the use of identical weights. It is also not altogether certain that the tentative weighting system proposed, namely the value of world trade, makes much sense. This may be an instance where the unweighted geometric average might usefully be brought back to life.
114. The general wholesale price index. The general tenor of the report is to show the lack of meaning of a general wholesale price index, especially in the light of the weighting system applied to it, unless one believes strongly in the Fisher equation of exchange. Nonetheless, the general wholesale price index is retained as the top of the pyramid of unrelated price indexes. With the natural inertia of many countries, it is feared that they will stick to the computation of this index only, considering the computation of sub-indexes as something more fanciful to be taken up at a later stage. In the countries which may be expected to behave in this manner, the general wholesale price index has virtually no meaning, in that it may be very far removed from any index indicating the prices of goods, whether produced or consumed in the country. For this reason, it seems important that the recommendations of the Commission shift the emphasis to the five group sub-classification given on page 14, as a must, with the publication of a general wholesale price index as an optional addition. The draft resolution of the Secretariat goes somewhat in that direction, but it should perhaps stress section (g) more as representing the essential end-product of the whole job.

SECTION V: THE WEIGHTING SYSTEM

Austria
115. Austria agrees that the weights should be proportional to the gross value of sales.

Canada
116. Canada favours "gross" weighted indexes as recommended, i.e. value in exchange weights, and agrees with the weighting plans for section and division indexes of the SITC (sales value of all transactions) and with the weighting plans for finished product indexes and major industrial group indexes.

France
117. France is in agreement with the use of weights proportional to gross value, but points out that the report should expressly indicate that this basis of weighting, if applied without any qualifications, can lead to errors of
interpretation both in international comparisons and in comparisons between different industries of the same country. Under this system, the weighting depends upon the degree of vertical concentration of industry; by taking into account all transactions, it gives commodities with a complex commercial circulation an exaggerated influence upon the general index. In other words, the group and general indexes are to a certain degree a function of the economic structure of the given country. On the other hand, if the weights of the general index should reflect the importance of transactions at successive stages of production and distribution, those of the group indexes should in most cases be based on the value of the production of a given industrial sector or of a homogeneous group of commodities.

118. Under these conditions, if the dissociation of the general index from the group indexes is to be avoided, it is necessary to find a compromise. The system adopted for the French index weights each sector in accordance with the total value of the products sold at the last stage of production represented in the index. Within each sector the weights are apportioned among the successive stages in accordance with the relative values of the products at the various stages considered.

119. France agrees that the weight attributed to a commodity included in several special indexes need not necessarily be the same.

Western Germany

120. Western Germany concurs with the observations made in the report concerning the weighting system, and is very glad that the problem of duplication has been clearly described. Since Western Germany's producers' price indexes reflect the price movements of all products of industry entering the market at the most varied stages of production and are consequently weighted by sales, they involve no duplication from the point of view of sales, but naturally contain a mass of duplication from the point of view of the net production values of the various industries. If, as is planned and as the report suggests, a price index is calculated for goods ready for capital investment and consumption, such an
economic classification involves no duplications from the point of view of production either. If the whole system is regarded not only from the point of view of national income, but from that of the sale of the goods produced during the course of the year, it clearly follows that the economic mass - the price movement of which is to be measured - represents quantities of goods exchanged, and that, logically speaking, there is no room here for the conception of duplications, a conception which is almost invariably based on ideas derived from production statistics and net production values.

**Japan**

121. Japan agrees that gross weights should be used.

**Scandinavian countries**

122. Scandinavia thinks that the whole production for sale as shown in the production statistics, including what is exported, and all the retained imports as shown in the foreign trade statistics, should constitute the weights both for indexes for the first price (c.i.f. price for imports and producers' price for home production) and for the last wholesale price (big consumers' and retailers' purchasing price for home consumption and f.o.b. price for exports). It would be extremely difficult to establish the correct weights if these should include the sales value for some commodities once, and for other commodities twice or more. Moreover, an index based on such a weighting system might be influenced to a large extent by price fluctuations of commodities of comparatively small economic importance, mainly because these commodities happen to pass through a great number of transactions before reaching the final consumer.

**United Kingdom**

123. The UK supports the use of gross weights, but points out that the purpose of each type of group index would determine the appropriate set of weights.

**Food and Agriculture Organization**

124. FAO agrees that gross weights should be used.
SECTION VI: THE FORMULA

**Austria**

125. Austria agrees that the Laspeyres formula should be used in preference to any other formula. It might be possible to adopt 1952, or perhaps 1953, as the base year for the projected new Austrian index.

**Benelux countries**

126. Benelux agrees with the proposal that the validity of the weighting system should be checked regularly by comparing the results obtained from using the Laspeyres formula with those obtained from using the Paasche formula. However, it is felt that it would be dangerous to change the weight base without changing the (comparison) base in cases where there are appreciable differences between the results of the two methods of calculation.

127. Benelux has strong reservations concerning the possibility of adopting a uniform base year (e.g. 1952) considering the very real differences that may exist between the economic situations of different countries.

**Canada**

128. Canada agrees that the Laspeyres formula should be used. Canada is also willing to consider 1952 as a new base year, but sees little hope of broad international agreement upon the selection of any particular year. National considerations are almost certain to transcend international interests on this point. International agreement upon a formula capable of simple transposition to an international base seems likely to be the greatest degree of unanimity capable of achievement.

129. Canada agrees with the usefulness of checking the validity of weights by index calculations according to the Paasche formula. To do this annually, however, would be impossible at present. Regular five-year reviews of weight base data and price series are desirable, but Canada is not convinced of the need for regular time base changes at such frequent intervals.
France

130. The recommendations of the report seem to proceed from the view that the formula should provide a good tool for comparisons between neighbouring periods rather than for comparisons between a given base year and a current year. If this is the position that has been adopted in the report, it should be formulated explicitly.

131. The Laspeyres formula must clearly be recommended, but the report should mention that it involves a systematic over-estimation of price increases and an under-estimation of declines. The Paasche formula would have the opposite disadvantage.

132. The report seems to assert as a principle that the Paasche index is more "exact" than the Laspeyres index. The difference that can appear between the results of the two calculations is characterized as an "error". These terms do not seem to be correct, since each method of calculation has its own significance.

133. Nevertheless, it is desirable that the weights should be revised every five years, or even more often if the Laspeyres and Paasche indexes give rather divergent results. However, France could not undertake the correction of already published indexes as a result of such a revision of the weights. The current use of the indexes in contracts formally excludes such corrections of back figures. If the Statistical Office decides to adopt recommendations concerning the way in which revisions and corrections should be carried out, it is desirable that these recommendations should be formulated very explicitly and very clearly.

134. The report should also mention that while the periodic revision of the index is necessary because of rapid changes in economic structure, it can hide other phenomena, such as the lowering of prices due to technical progress.

Western Germany

135. Western Germany agrees that the Laspeyres formula should be used, that the base for both weights and comparison should be a calendar year, and that the base year should be a period for which the quantity data on which the weighting
system is based are known. Since the data provided by a census of production are necessary in order to fix the weighting system, the choice of a single international base year for prices must therefore be determined in the light of the date selected for collecting production statistics. In view of the necessary preparatory work, the need for special legislative authorization, and budgetary appropriations, there is no possibility of such a census being taken in Western Germany as early as 1952.

136. Western Germany agrees that the continued validity of the weights should be checked annually by calculating the index according to the Paasche formula with estimated current weights, and that a thorough review of the whole index should be conducted at five-yearly intervals, provided that in the proposed five-yearly interval, fresh material for such a review becomes available. The proposal that countries should consider comparing the results of the Paasche formula with those of the Laspeyres formula presupposes that structural changes affecting the weighting system are known as they occur. This is unfortunately not the case with respect to a number of data in Western Germany.

Japan

137. Japan is in agreement with the use of the Laspeyres formula provided that the base is revised at sufficiently frequent intervals. Japan favours the adoption of a calendar year as the comparison base, but considers that a broader weight base covering two or three years should be used. Since the weight and comparison base should be a period in which the economy is stable and normal, the adoption of a standard year for this purpose is not feasible. 1952 may not prove to be suitable as the next base year for Japan.

138. Japan considers it necessary to check the validity of the weights periodically by calculating the index according to the Paasche formula, although it is not necessarily easy to obtain the data required for that purpose. This raises the question of the extent of the difference between the figures computed by the Laspeyres and the Paasche formulas that should be used as a criterion for changing the weight base.
Scandinavian countries

138. Scandinavia agrees entirely with the recommendation that price indexes should be computed according to the Laspeyres formula. With regard to the base year, Scandinavia is unable to wait until the necessary production and trade data for 1952 become available for weighting purposes. Therefore, it has been agreed to take 1949 as a base year. In this respect the minimum programme should be limited to the recommendation that the base for both weights and comparison should be one and the same calendar year. Scandinavia agrees with the statement in the Summary (point 8) that there is little or no hope of agreement on a standard base year or period for adoption by countries generally.

140. It is felt that annual checks of the validity of the weights by calculating the index according to the Paasche formula with estimated current weights would be valuable only if sufficient statistics were available to make reliable estimates possible. The weights should be changed at regular intervals, but these intervals should not be fixed, but should depend on the economic circumstances in each country.

141. The proposal that countries should consider comparing the results of the Paasche with those of the Laspeyres formula may involve great difficulties if new commodities should appear to any considerable extent. In such cases, it would be impossible to follow the price fluctuations for these commodities during the whole period. Even if it is decided that such checks would be desirable, this recommendation should in view of the costs, be limited to checks at longer intervals.

United Kingdom

142. The UK agrees that the Laspeyres formula should be used, and that occasional calculation of the Paasche form of index is desirable, though it is probably not necessary as often as once a year. The UK would be able to use 1951, but not 1952, as a new base year.

United States

143. If frequent changes are made in weights, the recommendation that the weight base and the comparison base should be the same year may result in unduly frequent changes in the comparison base. There should be international agreement
on the weight base year if that is possible (which it probably is not), but
the adoption of a uniform comparison base is not important. In any event,
it is doubtful whether 1952 should be recommended.

144. Opinion in the US is divided on the practicability of making annual
checks of the general and special purpose indexes by the Paasche formula.
Since really significant changes in the pattern of production generally occur
rather slowly, there is a substantial body of qualified opinion which holds
that checks by the Paasche formula need be made only at intervals less frequent
than once a year.

145. The Statistical Office may wish to take a position on whether wholesale
price indexes should be weighted by data relating to a fixed prior period or
weighted by data which approximately conform to the current pattern of transactions.
If the latter principle is adopted, the Statistical Office might undertake a
series of studies designed to lead to the general acceptance of objective
criteria by which to determine when critical differences exist.

Food and Agriculture Organization

146. FAO agrees with the use of the Laspeyres formula. However, it should
be noted that conclusions (k), (l) and (m) can only be implemented by countries
that have the necessary statistical data. Such checking by a relatively small
number of countries would yield interesting results that could be applied on
a broader scale.

SECTION VII: PRICE AND QUANTUM INDEXES

Canada

147. Canada considers that a more complete treatment of quantum indexes would
be desirable. The importance of these figures is widely, but perhaps rather
vaguely, accepted. Since one of the principal purposes, if not the main purpose,
of the report’s programme of price index number construction is to produce
deflator series suitable for the derivation of quantum results, there are a
number of questions which seem worthy of careful attention. How precisely can
various quanta be defined? What precision of measurement can be achieved, and
what precision is it useful to strive for? Technical advice on these and related
points should contribute materially to the achievement of the report’s objectives.
Western Germany

148. Western Germany agrees with the observations on price and quantum indexes, and considers that in many branches, quantum figures should be made up from the smallest possible constituents. In such quantum calculations the problem is always to exclude price variations, and it is important that this should be as far as possible for the individual sub-groups of the statistics concerned. Whenever an attempt is made to adjust global series with the help of a general price index, one is faced with the difficulty that the price index is inevitably weighted with fixed weights of the base year, while the genuine quantum figures must take into account changes in the quantitative structure of the material to be dealt with. The more often and persistently structural changes occur, the less possibility there is that price indexes, the fixed weights of which are for the most part derived from a rapidly out-dated economic structure, can be used as deflators in the form of general indexes.

Ireland

149. The following paragraph should be inserted after paragraph 3 on page 32: "4. The imperfections of the direct estimation of Q have, however, to be recognized. At the best the quantities for the computation of A (e.g. quantum import, export, or gross production or materials indexes) are defined at the commodity and not the variety level, so that the index Q must be computed, if the Laspeyres formula be used, from base unit values (for commodities) applied to current quantities. Since the varietal content of current quantities will vary over time, the index Q, even if directly computed, will have all the faults of a unit value index."

SECTION VIII: THE PROBLEM OF CHANGING QUALITY

Austria

150. The warning given in the report regarding the dangers inherent in using production costs in lieu of actual prices is particularly applicable to Austria.
Price controls have only very recently been gradually reduced. They took into consideration the production costs of the individual enterprises to a much greater extent than can ever be the case in a free economy. The use of such production cost data in Austria would, therefore, presumably lead to even greater discrepancies and divergencies from actual market conditions than would be the case in other countries.

Western Germany

151. The problem of changing quality is one which has caused great difficulty in Western Germany's price statistics as a result of the deterioration in quality during the war, and the first post-war years, and the improvement in quality which has taken place since the middle of 1948. There is no completely satisfactory solution. By their very nature, price statistics require comparable goods, and on this occasion life has provided goods that are not comparable.

Japan

152. With regard to subsidies and indirect taxes, it is desirable to compute indexes both before and after subsidies and taxes, but if only one index is computed, it should be after subsidies and taxes.

United Kingdom

153. The maintenance of strict standards in the month-to-month comparability of prices is particularly important in connexion with changes in qualities. Although it may sometimes be correct that changes in formal specification can be ignored, it would never be advisable to make this assumption until all the relevant information has been carefully examined. The specification and utility of an article may change considerably, even when it continues to satisfy broadly the same needs as before.

SECTION IX: THE PROBLEM OF SEASONAL VARIATIONS

Benelux countries

154. In cases in which a commodity disappears temporarily from the market (page 38 of the report), it seems preferable to exclude the commodity from the list (of series) and from the weighting scheme, rather than to incorporate theoretical prices into the index.
Canada

155. Canada would agree that seasonal movements in prices and quantities of important commodities should be investigated and the results published from time to time. This material would facilitate the interpretation of various index number series. Canada would not favour the use of seasonally adjusted price series in constructing wholesale price index numbers because important deviations from seasonal patterns occur sufficiently often to produce numerous distortions in results.

France

156. Although France does not calculate seasonally adjusted indexes of wholesale prices, it seems that the calculation of both seasonally adjusted and unadjusted indexes can, in certain cases, be useful. When a commodity is not quoted during certain months of the year, the report suggests the introduction of fictitious quotations. Such a practice seems to be a little dangerous. Would it not be better, at least in certain instances, to introduce seasonally changing weights?

Western Germany

157. Western Germany still regards this point as problematical, although the seasonal adjustment of price indexes is under consideration. The concept of a seasonal adjustment of price indexes is considered valuable. The appropriate procedure would be a matter for further investigation.

Japan

158. It is of great significance to observe the seasonal fluctuations in indexes of wholesale prices. Therefore, it is of no significance to compute seasonally adjusted indexes.

Scandinavian countries

159. Scandinavia agrees with the point of view expressed in the Summary (point 10) that the publication of seasonally adjusted indexes might mislead the general public. Further, it is doubtful whether it is possible to carry out correct seasonal adjustments.
United States

160. Further study should be given to the problem of the procedures to be followed in handling seasonal commodities in the index. Opinion in the US favours publication of both seasonally adjusted and unadjusted series where they are appropriate.

Food and Agriculture Organization

161. Since many agricultural commodities show significant seasonal variation, further consideration should be given to the adoption of uniform methods for seasonal correction. From the point of view of FAO, this subject deserves more emphasis than it has received in the draft. FAO supports conclusion (a) for the food and agricultural sector, namely that there should be two indexes - one seasonally corrected and the other uncorrected. This conclusion is of special importance, since for many member nations the agricultural sector carries a very large weight in the total index.

162. FAO does not fully agree with the treatment of missing quotations on pages 36 and 37 of the draft. There is little basis for supplying missing quotations by interpolation for a period in which the price is not quoted, no matter what function is adopted. It is felt that the weights should not be seasonally adjusted, since the resultant indexes would develop aberrations not connected with price changes.

163. FAO suggests the use of the method of moving averages as the most practical means of obtaining indexes of seasonal variation. It may be worthwhile for more developed countries to experiment with more refined methods which would take into account differences in seasonal pattern in years of large harvests as compared to years of small harvests, and also progressive changes in the seasonal pattern.

SECTION X: CONCLUSIONS

Austria

164. The financial means that are available are insufficient for the expansion of wholesale price surveys to any notable extent at the present time. Much of the planning is still in the theoretical stage, and great difficulties stand in
the way of their implementation, even on a modest scale. Most of the
recommendations made in the report can be put into effect only if the Central
Statistics Office (a) carries out regular monthly production surveys so that
the necessary price surveys could be combined with the production surveys, and
(b) carries out a production census, which has never been done before in Austria.
Present plans call for a production census at the end of 1952 or early in 1953,
providing the necessary funds can be obtained for this project.

Canada
165. The report is a landmark document embodying counsels of perfection. To
those engaged in wholesale price index number construction, the first reaction
is likely to be an initial wave of enthusiasm. This may be followed by sober
second thoughts of the cost involved. For Canada at least, and probably for
most countries, complete implementation of the recommendations would mean
expenditure much in excess of present budgets. High objectives require no
apology, but they do require careful attention to obstacles in the way of
achievement. For this reason it would have seemed worthwhile to have a section
in the report dealing with purposes which recommended data may serve. The uses
of wholesale price data are not so widely accepted as in the case of consumer
price data, and development in the wholesale price field has suffered because
of this.

166. Canada agrees that there is urgent need for guidance in the wholesale
prices field, and considers that the report is an excellent document. However,
its proposals are very ambitious and presumably few people have had an opportunity
to study them carefully. In view of the impact which this document may have
upon wholesale price index number development for years to come, its acceptance
should not be hurried.

Ethiopia
167. Ethiopia is in general agreement with all the draft recommendations,
and wishes that they could be applied to the Ethiopian economy. The difficulty
is that there is no staff to do the legwork necessary for the collection of such
a great amount of price data, and also that almost the only indexes of practical value would be those of export and import commodities. Industry is very small, and almost all agricultural produce entering the market is intended for export, as the natives supply their own food requirements, with the exception of those living in Addis Ababa and a few other fair-sized towns. The whole economy is dependent on foreign trade.

France

168. The report should definitely require each country to publish a methodological note setting forth exactly how their indexes of wholesale prices have been constructed. Many countries will certainly not be able to undertake the amount of work that would be required to raise their statistics of wholesale prices to the level recommended. It is desirable that more readily attainable minimum standards should be formulated, the original recommendations being retained to serve as a guide for future improvements. The recommendations (particularly with regard to classification) should be made more flexible in order to facilitate later extensions.

169. Perhaps it would be prudent to eliminate prices received by farmers for agricultural products, and only include agricultural products at the wholesale stage. In countries in which family farming is the predominant form of agricultural production, the inclusion of prices received by farmers does not correspond strictly with the concept of wholesale trade. Besides, an index of farm prices could be constructed as a separate index.

170. It would be equally desirable that the problem of weighting should be approached afresh. The solution adopted in the new French index provides a means of improving international comparisons between countries that do not have the same structure of production or the same system of distribution.

Western Germany

171. It is of the utmost value to consider the question of the economic phenomena for which price indexes are to be calculated in the context of general economic accounting. In this connexion, one should consider not only the calculation of
national income and the social product, but also a gross computation of all transactions connected with production in a single year, with the exception of transactions relating to already existing wealth. If the problem is approached from the point of view of the transactions between the individual sectors of the economy, it is possible, in the case of price statistics also, to achieve a clearer and more easily intelligible definition of the basic factors whose movements are to be measured.

Heshemite Kingdom of the Jordan

172. The recommendations are far beyond the capacity of, and indeed, the needs of Jordan, in view of its present economic structure. There are no organized wholesale markets, and the division of labour has not advanced far enough to lead to the establishment of a hierarchy of distributors and distinct phases of distribution. Consequently, it is not possible to undertake the collection of price data in complete conformity with the suggestions of the report. Apart from other considerations, the available staff is much too small even for the collection of basic data needed for work on the scale suggested in the report, let alone the tabulation and computation processes. For a country like Jordan the recommendations are not as useful as one would wish. It is suggested that the Statistical Office draw up a list of minimum requirements for countries with moderately advanced statistical systems.
APPENDIX III

EXTRACT FROM REPORT OF AN INTERNATIONAL SEMINAR ON PRODUCTION & PRICE STATISTICS BEIRUT, JULY 1952. ST/STAT/CONF.2/17

SECTION III: STATISTICS OF WHOLESALE PRICES

173. Consideration of wholesale prices was divided into three parts. The first part was on the general objects of price statistics and the construction of appropriate index numbers. The second part was concerned mainly with the collection of price quotations generally. The third part was about agricultural prices.

A. Wholesale price index numbers

174. Paper ST/STAT/CONF.2/3/L.5 by Professor Allen indicated how complex is the whole problem of compiling statistics of wholesale prices. Both in the collection of price data and in the construction of index numbers, a process of severe and selective limitation must be undertaken, with a view to publishing what is most practicable and most useful. To reduce the number of commodities prices, the economy must be divided into a few major sectors (e.g. agriculture, manufacturing, construction) and goods priced as they pass into or out of the sectors, with intermediate goods ignored. The timing of the prices can be at the first or the last stage of distribution and two different systems of index numbers can be developed. The paper recommended that, as a first priority, the first stage of distribution should be used for pricing and hence for the index numbers. This would lead to separate groups of index numbers for imports, for agricultural (and mining) products and for finished manufactured goods; the prices would be at importation or ex-farm, mine or factory. Other index numbers could be derived by re-grouping of the same price series, e.g. index numbers of prices of construction materials and of prices paid by farmers (as opposed to prices received by farmers).

175. In each group of index numbers there is no duplication in the prices. The price series can be combined in the base-weighted (Laspeyres) form with weights proportional to the gross values of the commodities entering the aggregate or
flow concerned. A general index of wholesale prices is of little significance compared with the group index numbers, except as a convenient but conventional summary figure obtained by combining (again with gross weights) the group index numbers.

176. One of the most useful and important of the group index numbers is that of import prices. A corresponding export price index can be computed at the same time. Such index numbers are, in general, relatively easy to compile using unit values from trade returns. In this connexion the seminar also considered a paper, ST/STAT/CONF.2/B/L.9, prepared by Mr. John Montias of UNRWA on an import price index for Lebanon. This paper raised a number of points both on the objects of such an index and on the difficulties likely to be met in practical compilation.

177. Discussion ranged over several different topics. It was emphasized that it was desirable to publish, not only index numbers in various groupings, but also the absolute price quotations used. This would be for the information of business and commercial interests in the country concerned, as well as for official use. Most countries of the Middle East now publish index numbers of wholesale prices but some of them are of very recent construction and all are recognized to be in need of development. Many difficulties were mentioned. There is sometimes a lack of data from basic agricultural and industrial surveys to provide the system of weights of the index. For this reason, for example, Jordan and Syria calculate index numbers in the form of unweighted geometric means. There are difficulties in including prices of commodities which fluctuate seasonally, or which are available only at certain times, or which change in nature over time (e.g. imports of wheat from various sources and hence of various kinds). A chain index with an unweighted geometric mean has some advantages in that quotations can be readily introduced or dropped. The dangers of the use of the geometric mean, however, were also stressed. The construction of index numbers of import and export prices was discussed both as part of a system of wholesale price index numbers and also for their own interest, e.g. in analysis of the terms of trade. Stress was laid on the importance of these index numbers and on the relative ease with which they could be computed in terms of unit values from trade returns.
178. It was agreed that index numbers of wholesale prices, with their many uses, should be developed in all countries in as flexible a manner as possible. The weighted arithmetic form is to be preferred, with weights proportional to gross values of sales of the commodities on the market concerned. The weights are to be determined for a base year or period, which can be changed from time to time, and hence from the basic agricultural and industrial surveys. Publication of the index numbers should be supplemented by publishing the main price quotations in absolute terms.

179. It was further agreed that index numbers of import and export prices should be constructed, whether separately or as part of the system of wholesale price indexes. These are most easily computed from unit values (c.i.f.) from trade returns, and such index numbers are of importance in considering such matters as variations in the terms of trade.

B. Collection of wholesale prices

180. Discussion of the collection of wholesale prices centred on the following five aspects: (1) selection of commodities, (2) selection of specifications, (3) selection of respondents, (4) revision of these selections, (5) frequency and method of collection.

181. (1) Selection of commodities. The list of commodities for which wholesale prices are to be collected is obviously a sample. The basis for the choice of such a sample was discussed. One suggestion was that initially a rather large list of commodities should be priced and that for computing index numbers a shorter list should be selected empirically to comprise the items which were found to be most representative of the average of the whole list with respect to the particular behaviour which the index was designed to describe. A counter-suggestion was that since the very limited resources available in most countries for this work did not allow the collection of reliable price data for a very large list of commodities, first priority should be given to prices important to business, agricultural and industrial interests which should all be consulted on the selection.
182. (2) Selection of specifications. In order to avoid changes in quotation which did not reflect true price changes, it was agreed that very precise specifications of quality and unit of quantity be adopted for every item. This would mean that some quotation series would be relatively short-lived. The solution was to collect data for several varieties of each commodity and to link the resulting series together.

183. Lack of uniformity in quantity measures presented a difficult problem in the Middle East. Where mail questionnaires were used, it was preferable to collect the quotations in terms of the conventional market units, making the conversion into standard units in the office of the collecting agency. The procedure would be different where the quotations were collected by means of staff interviews. The enumerators could then make the conversion on the spot and express the results in standard units. It was agreed that it would be valuable to have a standard list of quantity measures worked out which could be applied throughout the region.

184. (3) Selection of respondents. The method of selecting respondents for supplying price quotations was discussed. It was agreed that the criterion of selection should relate to the sales of establishments to other firms rather than directly to consumers. A difficulty in selecting respondents was that a great many establishments in the Middle East engaged simultaneously in wholesale and retail trade. It was pointed out, however, that the inclusion of such establishments in the list of respondents was not likely to vitiate the results so long as the same prices, whether wholesale or retail, were regularly reported.

185. The question of how many respondents should report on one item was considered. It was generally preferable to have more than one respondent per item, but this required more staff and increased the difficulty of finding reliable and willing respondents.

186. (4) Revisions. The importance of different commodities and different specifications varies from time to time; establishments may disappear or change from wholesale to retail trade. It was agreed that it was not advisable to complicate the questionnaire soliciting price quotations with questions regarding the matters stated above. It was considered better practice to have an inspector from the collecting agency make periodical tours of the market to check upon such changes.
187. (5) Frequency and method of collection. Regarding the frequency of collecting price quotations it was agreed that since the purpose was to secure a representative monthly price, it was not necessary to follow a uniform procedure with respect to all commodities. For some commodities, such as those handled on produce-exchanges, daily quotations could be compiled. For commodities with a large degree of price fluctuation, weekly or semi-weekly quotations were necessary. For fairly stable commodities, monthly quotations on a stated day in the month were sufficient.

188. Some countries of the Middle East have commodity-exchanges which publish daily quotations. Wherever such published quotations are found they are used for price statistics. For commodities not quoted on exchanges, the method in most countries of the region is to collect price quotations by means of staff interviews. It was suggested that instead of this method, the mails should be used, as being more economical; on the other hand, it was pointed out that this would be likely to reduce the response rate and also that it deprived the statistical staff of direct contact with the market.

C. Statistics of agricultural prices

189. On this subject the seminar considered paper ST/STAT/CONF.2/A/L.5 by the Food and Agriculture Organization. The discussion took place within the framework of the conclusions relating to wholesale prices generally. The points considered were as follows:

190. (1) Wholesale prices of agricultural commodities. Wholesale prices of varying numbers of agricultural commodities are collected in all countries represented at the seminar either by the statistical bureau or by other agencies, or sometimes by both. The purpose, however, in the case of all but the most important commodities is to obtain data for the computation of a general index of wholesale prices, and very few of the prices collected are published or otherwise disseminated promptly enough to be useful, for example, to the farmers in guiding their marketing. Cotton in Egypt is a noteworthy exception, since both future and spot prices in considerable detail are broadcast on the radio and published daily. Except in the case of commodities for which a well-organized and recognized market provides daily price statistics, the usual method of collection is by interview and the number of quotations obtained is very small. The resulting averages have a large variance, and changes in the average from one month to another are not always statistically significant.
191. (2) Farm prices. The collection of prices received by farmers is a neglected field in nearly all countries, although in the Middle East it should probably have a priority in price statistics exceeded only by central market or wholesale prices of the major products of the economy and by cost-of-living data. Economic and agricultural planners need monthly or season-average prices for all important agricultural products in as much geographic detail as can be had with reliability. Only about half of the countries have so far begun to collect data in this field and very few figures have been published. The Ministry of Agriculture in Egypt has for several years received fortnightly reports from its field staff on prices prevailing in country districts for most of the important farm products, but none of the data are published promptly, and for most commodities the only published figure is an annual national average. In Syria a tax commission estimates for each of nine provinces the prices at which the farmers could sell their crops at harvest time. These estimates are made in order to levy a marketing tax; they are not published, and they may differ from prices actually received. The Central Statistical Office in Turkey has recently begun a programme for getting a report every other month on prices in each of about 500 districts, the reports being sent to Ankara by selected statistical reporters, mostly agricultural teachers. This programme appears to be sound and economical but it has not yet functioned long enough to permit analysis of the prices. In Cyprus monthly reports on prices in villages are submitted by the agricultural staff.

192. The chief reason for the relative neglect in most countries of this important kind of statistical data is undoubtedly the greater difficulty and expense involved in getting prices from all agricultural districts than in getting prices in large cities. Whereas it may be possible in the capital to get quotations from a sample of merchants by interview, the cost of travel in the country forces the statistical bureau to rely on reports mailed from correspondents, usually government employees, and these correspondents can give only their opinions, subject to bias of unknown direction and degree, instead of quotations based on transactions.
193. (3) Wages in agriculture. Both the long-term trends and the year-to-year changes in the level of wages for agricultural labour are significant economic indicators. There are, of course, difficulties in obtaining such wage statistics, some due to the nature of the labour market and some very similar to those encountered in collecting prices received by farmers. About half of the countries represented are already collecting some data on agricultural wages and more are planning or beginning collection, but very little has so far been published regularly and there appears to have been very little attention paid to analysing such data as do exist.

194. (4) Prices of agricultural requisites. Several countries represented have been collecting wholesale quotations on some agricultural requisites, such as fertilizers, petroleum products, or jute bags, but the purpose has been to compute an index number and very little information has been published. No attempt has been made in any country to develop index numbers suitable for measuring changes in the purchasing power of agricultural products.

195. It was concluded that

1. Prices received by farmers are very important for economic and agricultural planning and efforts should be made to develop in each country a programme for collecting data during the appropriate marketing seasons for the different products. The suggested method is to use reports mailed from selected and trained statistical reporters giving the usual or prevailing price in the community.

2. Wages of agricultural labour should have a priority almost as high as prices received by farmers for the main crops and should be collected in the same manner. If two or more important modes of payment exist, separate series of wage statistics should be developed for each.

3. Prices for agricultural products established daily in important auction markets or commodity exchanges should be promptly disseminated by radio and newspaper in order to make them available to country dealers and farmers as well as to statisticians. Similarly, weekly or monthly average prices based on reports collected by the statistical bureau from merchants should be promptly published if they are considered, after analysis and testing, to be reliable.
4. Much more attention should be paid to the reliability of price statistics, even if this requires some reduction in the number of commodities covered by the pricing programme. The statistical bureau should arrange for all quotations to be sent directly to it, rather than relying on averages computed in field offices by untrained people. If the collection is done by a commodity exchange or chamber of commerce, the statistical bureau should investigate the procedures used before publishing the data.

D. Comparability of price data in the region.

196. Some of the similarities and differences which exist among the countries of the region with respect to prices (some points also applying to production statistics) were described in paper ST/STAT/CONF.2/B/1.7. Among the matters considered were base periods, methods of computing indexes and the classification of items into groups.

197. With regard to base periods it was not thought necessary to have the same base period for all countries; however, it was considered highly desirable that all countries adopt a post-war period.

198. For computing indexes, the weighted arithmetic mean (Laspeyres) was recommended. Some participants pointed out the difficulties facing their countries in adopting this method, particularly with reference to lack of data that can serve as a basis for weighting. It was pointed out that the weights need not be based on very exact data, and that in any case this method is to be held as a goal to reach whenever practical.

199. It was pointed out that there were only two classes of items for which price index numbers were constructed that were common to all the countries of the region. These were construction materials and fuels. There was agreement on the desirability of having other similar groupings so that comparison may become more meaningful. In particular, the following basic groups were recommended to be adopted by all if possible: agricultural products at farm prices, manufactured articles at factory prices, imported goods at the import price before duty, exported goods at the export f.o.b. price, and where there was mining, minerals at the mine price. Some of these groups could be further sub-divided, e.g. the manufactured products group could be further divided into processed foods, textile products and others.
200. In general it was agreed that wherever possible attempts should be made to place the data on a common basis in order to increase the comparability of statistics within the region. In this connexion the recommendations of the Statistical Commission should of course be taken into account.
APPENDIX IV

EXTRACT FROM REPORT OF SECOND REGIONAL CONFERENCE
OF STATISTICIANS IN THE ECAFE AREA,
BANGKOK, SEPTEMBER 1952. (E/CN.11/354)

SECTION IV: WHOLESALE PRICE STATISTICS

201. The Conference had before it the following working papers:

Statistics of wholesale prices
Report on the establishment of an index of wholesale prices in Colombo
Statistics of agricultural prices
Wholesale price statistics in Asia and the Far East

202. A number of papers and publications, which are listed in Appendix B, were circulated by various delegations.

203. The time available to the Conference was insufficient to permit full discussion of the many points raised in the papers concerning the collection and preparation of price data and the compilation of index numbers of wholesale prices. Questions of concepts and definitions were considered only in so far as they arose in connexion with the practical problems studied. There was only a very brief discussion about the suitability of various index number formulae. Particular attention was paid to the problems arising out of the special conditions in the ECAFE region.

204. The Conference noted that before it could properly discuss the question of index numbers, to which Professor Allen’s paper (E/CN.11/STAT/CONF.2/5) was mainly devoted, it was necessary to consider the need for price data for all purposes, of which the construction of index numbers was only one, although an important one.

A. Need for price data

205. The Conference considered that the main needs for wholesale price data in the various countries are to measure changes in the relationship of the supply of and demand for important commodities; to measure the efficiency of operation of
productive units; to assist governments in administration; and to compile price index numbers which will help in guiding general economic policy, in determining trends and in making comparisons between different sectors of the economy. The delegates noted the importance of being able to make comparisons between price trends in different countries. Price data may also be needed to deflate value aggregates so as to obtain "real" or quantum changes.

206. In the paper submitted by the FAO (E/CN.11/STAT/CONF.2/7) it was pointed out that, while statistics of agricultural prices do not differ in essence from price statistics of other goods, they have certain special aspects which should receive attention in the countries in the ECAM region. There is particular need in many countries for better statistics relating to agricultural prices, including not only prices of agricultural products, but also prices of agricultural requisites, wages of agricultural labourers, rent and land prices and others. Several countries in the region are important producers of major agricultural commodities entering into world trade, the production of which is strongly affected by prices. Even in the areas where subsistence farming prevails, so that the marketable surplus is relatively small and the wholesale markets correspondingly of lesser importance, prices of the products are, as an element in the cost of living, of crucial importance to the other sectors of the economy. Where there is danger of food shortage, the early warnings which changes in wholesale prices may give are important.

207. The Conference also took note of the desirability of compiling statistics of prices received by cultivators as well as those prevailing in the wholesale markets so as to provide a measure of the marketing margin between the cultivator and the wholesalers.

208. For the compilation of price statistics it is necessary to have clearly specified commodities and prices relating to transactions in a reasonably wide market. Very valuable data are already available where there are organized commodity markets, but the many uses of price data, including the study of margins and the preparation of index numbers, necessitate the collection of prices over a wider field. It was evident from the discussion that in some countries the available data are not sufficient for these uses.
209. The collection of price quotations which are accurate, representative, and regularly available is basic to the compilation of good price statistics. The proper presentation of such data goes a long way towards fulfilling the purposes for which prices are needed, and the Conference therefore recommended that steps for the collection and publication of reliable price data should be given high priority in the statistical work of the region. Moreover, the dissemination of these statistics might help in reducing price differentials between markets arising from lack of information and in reducing the many social and economic losses resulting therefrom.

210. There are also special problems of obtaining representative prices of goods produced in cottage industries where these goods are produced on any important scale for the market.

211. Conclusions on the need for price data. The Conference concluded that:

(a) special importance should be attached to extending the range of agricultural commodities, mining products and manufactured articles for which price data are being collected.

(b) in the case of agricultural prices, it is important that prices received by farmers should be collected as well as those paid in wholesale and retail markets.

B. Index numbers

212. The Conference discussed the paper (E/CN.11/STAT/CONF.2/5) prepared for the United Nations by Professor R.G.D. Allen. It noted that the views expressed therein were not necessarily those of the Statistical Commission of the United Nations, and the paper was presented to stimulate discussion on the collection of wholesale prices and the construction of index numbers.

213. The Conference noted that in Professor Allen's view the construction of a general index of wholesale prices should not be the principal aim, and that the emphasis should rather be on separate indexes relating to the different sectors of the economy; it noted Professor Allen's proposal relating to the choice of sectors, and came to the conclusion that in some countries in the region the number of sectors for which indexes of wholesale prices could be prepared would be limited.
214. It was indicated that most of the countries in the ECAFE region favour having general index numbers of prices but that these would often have to be supplemented by index numbers for important sectors of the economy. Before considering which sectors would need to have separate indexes, the Conference considered the uses of a general index.

215. On the usefulness of the general index of wholesale prices, the opinion of the Conference was divided. According to one view, it was claimed that this general index is an important indicator of broad economic trends. Although certain commodities may not, in a short period, provide, when combined in the form of a general index, a measure of the exact magnitude of the over-all change in prices, this index does give in summary form an indication of the magnitude and direction of the over-all changes in wholesale prices. It was further claimed that it can be used as an indicator of general changes in prices or of general economic conditions from period to period; and that it is also useful for international comparisons, although in this connexion its usefulness is sometimes limited, because the economies of different countries are often varied. The inter-country comparison is not strictly valid in such cases, but the index numbers of different countries are still good indicators of the relative movements in wholesale prices within these respective countries.

216. The other view, as elaborated in Professor Allen's paper, was that a general index was of less use than was claimed for it by its advocates, and that the functions expected of it would be better fulfilled by the construction of separate index numbers for various sectors of the economy.

217. The Conference then considered the price index numbers which might be compiled in addition to a general wholesale price index, and suggested that as a minimum these should relate to (i) imports, (ii) exports, and (iii) agricultural products. It was noted that it would, at first, be proper and practical to use indexes based on unit values in respect of imports and exports where trade figures are recorded in adequate detail.
218. The Conference noted the suggestion of the representative of France that when further sub-divisions of these indexes are contemplated, consideration be given to the need for indexes relating to foodstuffs.

219. The Conference also noted the suggestion of the representatives of FAO and of Burma that, if possible, separate indexes relating to (i) crops and livestock, (ii) forestry products, and (iii) products of fisheries, be prepared.

220. It was evident that in some countries of the area sector indexes would be required for (i) mining, and (ii) manufacturing. These in turn might be sub-divided.

221. The Conference also noted a suggestion that in countries of the region indexes of prices of materials and requisites for agriculture would be valuable, as these would, when combined with indexes of other agricultural costs and compared with an index of prices of agricultural output, enable the "terms of trade" (parity) of the agricultural sector related to others to be measured. It was, however, pointed out that the compilation of an index of agricultural costs would present considerable difficulties.

222. Conclusions as to index numbers to be prepared. The Conference concluded that:

(a) most of the countries in the ECAFE region favour having general index numbers of wholesale prices, but these may have to be supplemented by index numbers for important sectors of the economy.

(b) as a minimum, index numbers relating to (i) imports, (ii) exports, and (iii) agricultural products should be prepared, while some countries would wish to have indexes for further groups or sectors; unit values might be used in compiling indexes of imports and exports.

(c) the indexes relating to foodstuffs are of particular importance.

C. Selection, specification and classification of commodities

223. The selection and specification of commodities for which it is intended to collect wholesale prices was considered by the Conference, and it was agreed that without accurate and detailed specification, especially in the case of manufactured products, it would not be possible to collect reliable price quotations.
224. In order to keep abreast of changes in the types and grades, and also changes in the quality of commodities, it would be necessary to amend specifications as and when required. It was noted, however, that the most important commodities sold on organized markets are graded, and that therefore the specification of those commodities for statistical purposes does not present great difficulties. This, however, by no means applies to all goods important in some countries of the area.

225. The Conference agreed that the principal criteria for the inclusion of commodities should be their economic importance as measured by the aggregate value of total transactions and by the magnitude of their price fluctuations.

226. It was agreed that current transactions, i.e. prices based on contracts currently entered into, should form the basis of wholesale price collection.

227. The Conference then considered certain difficulties in compiling price series:

(a) Government purchases. The Conference discussed the inclusion in indexes of wholesale prices relating to wholesale transactions on government account. It recommended that consideration should be given to the inclusion of wholesale prices relating to government trading, and the exclusion, in certain conditions, of prices of goods for governments' own use, e.g. armaments, military uniforms. In any case, their inclusion or exclusion should be clearly stated.

(b) Controlled and free market prices. In the case of commodities, the prices of which are controlled, the problem of free market prices as distinct from controlled prices could not be ignored. The Conference agreed that it would be desirable, in principle, that these free market prices should be included, weighted in proportion to the estimated volume of transactions, provided that these constituted a significant proportion of all transactions. It was, however, recognized that serious practical difficulties would arise. The Conference was unable to agree on the definition of "black market".
(c) Subsidies. It was agreed that in the case of subsidized commodities, both prices including and excluding subsidies should be collected if practicable. The decision as to the price to be used in the compilation of a general index should be left to the discretion of the governments concerned, provided that it was clearly stated whether the prices net of subsidy or otherwise had been chosen.

(d) Quality changes. This subject was discussed under two headings. In the case of agricultural products, the problem was not considered of great importance, as the changes in quality were often allowed for by the grading of the products, and even where this was not the case, such quality changes that might occur should be ignored. In the case of manufactured articles, it was felt that, while an allowance for quality changes was desirable, in practice conditions ruling in the region would make it difficult to collect the necessary information.

(e) Seasonal prices. It was agreed that the use of "dummy" prices was undesirable. When commodities had to be dropped the index of the group should be continued either by substitution of a related commodity, by a method of splicing or linking, or by relating the monthly prices to the prices of the corresponding months in the base period, allowing for monthly variations in weights.

228. On the subject of classification, it was noted that Professor Allen's was, broadly speaking, an industrial classification. It was suggested, however, by some of the representatives that a better alternative would be a classification based on the Standard International Trade Classification. This classification can be adjusted to suit the special needs of individual countries.

D. Collection of Prices

229. Discussions on the many problems of collection were very brief owing to lack of time. It was noted, however, that to meet some of the suggestions made earlier in the report, e.g. collection of prices paid to farmers, there would be need in a number of cases for an adequate system of sampling to obtain representative price quotations. The establishment of such a system would need careful consideration, as is shown by the experience of the National Sample Survey in India.