

**Volume of Manufacturing Production in Recent Years.\***—An investigation of the greatest importance, especially in a period when values are rapidly changing, is that of the volume of manufacturing production as distinguished from its value. Since real income is ultimately measured in goods and services, the growth of the volume of manufactures, therefore, becomes a matter of great importance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

The ever-increasing use of factory products is one of the most significant features of modern life. The process has continued until at the present time fresh fruits and vegetables are about the only articles which reach the consumer without, in some way, being first processed at a factory. Fresh milk is pasteurized and bottled in a dairy plant, fresh fish and meats are dressed principally in packing plants and the home preserving of fruits and vegetables is being superseded by more efficient processes in the canning factory. Thus even the foods we eat, as well as the clothing we wear, our household conveniences and our instruments of production and transportation, are increasingly products of factories. The growing volume of factory production, therefore, measures approximately the total flow of the economic goods upon which the rising standards of modern life so vitally depend.

The statistics of manufactures afford a variety of measures of the growth of factory production. The number of wage-earners, capital invested, value of production and value added by manufacture all show to some extent the direction and volume of growth. The value of production and that added by manufacture, being reported in dollars, are influenced by price changes as well as the quantity of goods produced, and, as already explained, become misleading under the violent price changes of the past fifteen years. The capital invested is also affected by changing money values, while the relation between capital invested and value of goods produced varies greatly as between one industry and another. Neither is the number of wage-earners employed likely to be a representative measure of changes in the volume of production. The progressively increasing use of machinery and the rise in the power installed per wage-earner (see Table 4) tend to increase the employee's output. Thus, while the reported wage-earners in 1934 had decreased 1.0 p.c. from the number in 1923, the volume of production is estimated to have increased 17.9 p.c. in the same period.

The central electric stations were excluded from general manufactures in making the index, since this industry is in a class by itself in the peculiar function of its product, and is also unique in the magnitude of its capital investment and the smallness of its labour force in proportion to its net production. The index is based on the quantities of manufactured products reported and includes 71.1 p.c. of the total value of the production in 1926, exclusive of central electric stations. It is weighted according to the values added by manufacture in 1926. A complete description of the manner in which the index is constructed will be found in the publication referred to in the footnote to this page.

The physical volume of manufacturing production, exclusive of central electric stations, increased 50.2 p.c. from 1923 to 1929. When it is recalled that the population of Canada is estimated to have increased only 11.3 p.c. during the same period, the growth of manufacturing production is indeed remarkable. Of this advance, the part resulting from an increase in the domestic demand due to growth of population would be about 11.3 p.c. Exports of partly and fully manufactured goods increased from \$591,830,000 in the fiscal year ended Mar. 31, 1924, to \$690,904,000 in the fiscal year 1930, the increase in exports representing about 3.6

\* For a much more detailed and comprehensive treatment of this subject, see the study "The Quantity of Manufacturing Production in Canada 1923-29" by A. Cohen, B.Com., Chief, General Manufactures Branch, Dominion Bureau of Statistics.