

### Influences on Relative Rates of Growth

As an aid in the examination of the forces underlying the changing industrial structure of the manufacturing industries, the following statement shows the major industry groups ranked according to their 1946-65 average annual percentage growth; these growth rates describe the expansion of the physical volume of output of these industries as measured by monthly indexes of industrial production.\*

Industry Group	Average Annual Growth		Rank of Growth Rate	
	1946-65	1956-65	1946-65	1956-65
	p.c.	p.c.		
Miscellaneous manufactures.....	9.1	8.1	1	1
Products of petroleum and coal.....	8.6	5.4	2	5
Chemicals and allied products.....	7.6	6.1	3	3
Electrical apparatus and supplies.....	7.0	6.1	4	4
Non-metallic mineral products.....	6.9	4.3	5	11
Tobacco and tobacco products.....	6.1	5.1	6	9
Printing, publishing and allied industries.....	5.3	4.0	7	13
Iron and steel products.....	4.8	5.3	8	6
Textiles.....	4.2	7.1	9	2
Rubber products.....	4.2	5.2	10	7
Paper products.....	4.1	4.5	11	10
Transportation equipment.....	4.1	5.2	12	8
Foods and beverages.....	3.9	4.1	13	12
Non-ferrous metal products.....	3.8	3.8	14	15
Wood products.....	3.4	3.3	15	16
Clothing.....	3.0	3.8	16	14
Leather products.....	1.6	2.2	17	17
ALL MANUFACTURING INDUSTRIES.....	4.8	4.9	...	...

Where an industry group has been growing more rapidly than the average, it has been increasing its share of the volume of production of manufacturing as a whole; where it has been growing less rapidly than the average, its share has been decreasing.† Two major forces have contributed very noticeably to the expansion of demand for the products of several of the more rapidly growing industry groups—technological change, in a broad sense, and rising per capita real incomes (i.e., incomes adjusted for price changes). The term “technology” in its narrowest sense refers to the methods of production from an engineering viewpoint; in economics it is often expanded to cover the development of new products that better meet the needs of user industries or consumers, drawing upon technical or scientific knowledge and generating new combinations of capital and labour just as progress in the technology of existing products does. As will be seen, the introduction of new products has had a conspicuous effect on Canadian manufacturing during the postwar period. At the same time, some of the industry groups that have grown most rapidly have benefited from the fact that per capita demand for their products tends, in the experience of Canada and of other nations as well, to grow more rapidly than per capita consumer income. On the other hand, some of the slowest growing industry groups shown above make products the demand for which tends, in any nation, to grow relatively less rapidly than per capita income.

The plywood industry may be used as an example of the effects of these forces on the growth of an industry. Technological change both in the industry itself and in the construction industry combined with a rise in per capita consumer real income to increase the production of plywood much more rapidly than the population or the real gross domestic product. The development of waterproof bonding resins prior to the 1946-65 period laid the foundation for much of the expansion of the industry during that period and, in addition, the industry's product met a need of builders and contractors to use less labour

\* These indexes are published in DBS periodical *Industrial Production Index* (Catalogue No. 61-005) and are based on the 1948 standard industrial classification; they will later be converted to the revised (1960) standard industrial classification, thus making them comparable with currently issued dollar and employment data for manufacturing industries.

† Estimates of constant dollar volume of output, as such, are not prepared, so that this is an indirect method of studying changes in the industrial structure of manufacturing.