

from mines, quarries and oil wells which showed an average annual real growth rate of 6.2% from 1961 to 1971 but a rate of 1.4% from 1971 to 1977. Manufacturing output showed a growth rate of 6.3% from 1961 to 1971 but only 3.1% from 1971 to 1977. Among manufacturing industries the transportation equipment group showed strong growth in the 1960s, turning out a variety of products from locomotives to snowmobiles in addition to motor vehicles; the group as a whole showed a strong average annual growth rate of 12.3%. From 1971 to 1977 the growth rate for the group slumped to 4.5%, sustained at that level mainly by automobile and truck output. Among service industries, education showed enormous growth in the 1960s particularly in the post-secondary institutions. As a group, education and related services recorded an average annual real growth of 9.4% from 1961 to 1971 but from 1971 to 1977 this dropped to 1.4%. Air transport, which showed growth of 10.0% in the 1971-77 period, is down from the 15.0% annual real growth shown from 1961 to 1971.

The reasons why these industries grew rapidly in the 1960s and suffered a much diminished rate of growth in the 1970s are as diverse as the industries themselves. For most, a return to the higher rates of growth is not foreseeable so that, even while providing strength to a recovering economy, that strength is considerably muted as compared with the 1960s. For many other industries not mentioned in this brief summary, particularly those service industries that are continuing to provide strength in the 1970s, it is difficult to generalize the probable direction of their growth in output.

Aggregate productivity measures

21.2.1

The level of, and changes in, productivity have a vital influence on economic growth, overall cost structure, international competitiveness and, in the final analysis, on the quality of life. In the measurement of productivity, output is related to one or more kinds of inputs used in the production process.

The measures of productivity presented here relate output to a single input only, namely labour time. It must be emphasized that changes in output per unit of labour input cannot be attributed directly and solely to labour; such measures reflect not only changes in the skills and effort of the labour force but also the contribution of other productive resources with which labour works as well as the effectiveness with which all are combined and organized for the purpose of production. In other words, changes in technology, capital investment, capacity utilization, work flow, managerial skills and labour-management relations all have a bearing on movements in what is termed labour productivity. The measures of unit labour cost are the ratios of labour compensation to output. Unit labour cost can also be obtained as the ratio of average compensation to productivity; thus unit labour cost will increase when average compensation grows more rapidly than productivity.

Sources of data. The output components of the various indexes of output per unit of labour input and unit labour cost referred to here are the indexes of real domestic product (RDP) by industry. Developed within the conceptual framework of the system of national accounts, they measure in constant dollar terms the contribution of each component industry to total output.

The major sources for the employment and man-hour indexes were the monthly labour force and employment surveys and these were supplemented by data from such sources as the annual censuses of manufactures and mining and the decennial census of population. Since the data from these diverse sources varied considerably in their coverage, concepts and methods of compilation, care had to be exercised in selection, adaptation and combination of the data into aggregate measures of labour input which would be conceptually and statistically consistent, both internally and in relation to the output data. Labour force survey data were used for the paid worker estimates of agriculture and of fishing and trapping while those for manufacturing and mining were based on adjusted annual census data. Estimates for most of the remaining industry divisions were derived from employment survey data. Estimates of other than paid workers (own-account workers, employers and unpaid family workers) were derived mainly from the labour force survey. Estimates of average hours worked, needed for the indexes of output per man-hour, were also based on labour force survey data except in