

in price and if the volume of production is expressed in terms of constant 1971 dollars the increase in output becomes a fourfold increase: from \$27.8 billion in 1949 to \$115.7 billion in 1979. This represents an average annual growth rate of 4.9%.

In the same period the number of persons employed increased from 5.0 million to 9.8 million for an average annual growth rate of 2.3%. Man-hours worked is a more sensitive measure of labour input and takes into account the decrease in the length of the average work week, the increase in vacations, work breaks and other time spent away from the job. Man-hours worked grew at a lesser rate than the number of persons employed for an average annual growth rate from 1949 to 1979 of 1.5%.

Productivity, measured by output per person employed and by output per man-hour, grew in this period at average annual rates of 2.5% and 3.4% respectively. Productivity is most often related to a single input, labour, but not all changes in productivity can be attributed solely to labour. While output per unit of labour input does reflect changes in education, skills, and effort of employed labour, it also reflects the contribution to output of capital investment, capacity utilization, changes in technology and process efficiency. Because of the difficulty in calculating the changes in these other inputs, measures of productivity are usually in terms of labour input.

The trend in output at the aggregate level obscures sharp fluctuations in growth both among industries and among regions. Even at the aggregate level, the pattern of output growth has shown considerable cyclical change. In analyzing the business cycle it has been customary to redefine output to exclude some components of output such as government and agriculture. However, the results of such analysis depend heavily on the definitions used and thus the number of business cycles identified during the last three decades may vary from four to seven or even eight, each one varying in duration and amplitude. Notwithstanding the insight given by more complex analyses, it is possible to generalize certain features of the trend in output in recent years.

From 1949 to 1959 the growth in aggregate real output averaged 5.0% although in the middle of the period, from 1954 to 1956, growth rates were sharply higher than any others during the entire post-war period, being 10.3% from 1954 to 1955 and 8.7% from 1955 to 1956. The decade of the 1960s on the other hand was characterized by a high and sustained level of growth and remains unique for the rate of real output growth attained for its duration. From 1961 to 1969 the average annual rate of growth was 6.1%. In the middle of this period the growth of output peaked again but the peak was sustained for several years.

Given that the 1960s showed unusual strength, it could be expected that in the 1970s there would be a return to lower growth rates. This indeed happened. Although the earlier years of the 1970s showed some strength, particularly until 1973, the later years brought exceptionally low rates of growth. Thus the 18 average annual growth rates of real output calculated from 1961 to 1979 showed a declining trend. The growth rate from 1961 to 1979 of 5.1% was the highest; from 1962 to 1979 it declined to 5.0% and then continued the decline (with few exceptions) to the lowest growth rate of 3.1% from 1978 to 1979.

Since the 1950s, production of both goods and services has moved in a generally cyclical manner. During the 1950s the amplitude of the cyclical movements in terms of the percentage deviation from trend was similar for both goods and services. Since the early 1960s, the production of services has shown considerably less cyclical volatility, but production of goods has become more volatile, with manufacturing the principal contributor to cyclical instability. Production of goods other than manufactured goods, even including such volatile industries as agriculture and construction, has shown more stability than manufacturing since 1960.

In 1975 the sharp interruption in the growth of aggregate output pointed up a number of departures from the patterns of the 1950s and 1960s. The downturn in manufacturing was not only the most severe throughout the period but there were also unusual downturns in goods production other than manufacturing. Most notable of these were in metal mines, crude petroleum and natural gas, and electric power utilities. Downturns in these industries have been rare in the past, and for electric power utilities were unknown since 1945. The service industries, in contrast to the 1950s and 1960s, displayed sustained growth offsetting to some extent the downturn in goods production.