dairy products tied with miscellaneous machinery and equipment at \$3.4 billion; and smelting and refining, \$2.4 billion.

18.1.2 Statistics on manufacturing

Manufacturing, as one of the most important sectors of the economy, in 1978 accounted for 20.7% of the gross real domestic product, that is, the output of goods and services produced in Canada. Preliminary data for the 1978 census of manufactures show that 31,963 establishments reported manufacturing shipments of \$129.0 billion and nearly 1.8 million employees, about 86,000 more than in 1977.

A monthly survey of employment produced an estimate of 1.9 million employees in manufacturing for 1979. A preliminary estimate of average weekly wages and salaries in this sector for March 1980 amounted to \$335.61. Physical output per man-hour worked increased at an average annual rate of 3.9% over the 1961-79 period.

Exports of fabricated materials and end products, roughly equivalent to manufactured goods, indicate Canadian manufacturers did some processing on 70% of total exports in 1979. Profits (before taxes and extraordinary items) of incorporated companies classified as manufacturing entities amounted to 8.3% of total revenue for the same year. In 1980, according to a survey of investment intentions, it was anticipated that the manufacturing industries would be accounting for 28% of all capital expenditures for new machinery and equipment. Total expenditures in 1979 on research and development in Canadian manufacturing was \$809.2 million representing 33.9% of total expenditures in all sectors.

18.1.3 Capacity utilization

Capacity utilization rates measure the extent to which capital stock resources are used in the production of goods. The gap between the potential and actual use made of capital assets is a reflection of economic activity.

Capacity utilization for all manufacturing industries in the first quarter of 1980 was 84.6%, a decrease of 3% over the same period the previous year. The transportation industries accounted for the largest reduction, down 25 percentage points to 72.8%. Non-durables measured 88.8% for this period, somewhat greater than 80.4% for durables. Non-durable industries have usually had greater capacity utilization rates historically, partly because of the perishable nature of the goods produced which discourages inventory buildup and a constant demand for such products as food and clothing. Demand for durable goods shows a more cyclical behaviour with plants often having excess capacity to meet peak demands.

As Canadian exports have become more attractive abroad with the devaluation of the dollar, and domestic manufacturers have been substituting cheaper Canadian products for imports, the economy has experienced a surge in demand for certain manufactured goods. Four major groups out of 20 were operating at near capacity in the first quarter of 1980: printing and publishing at 98.9%, machinery industries at 97.3%, paper and allied products at 96.9% and knitting mills at 90.6%. Major groups operating in the 85%-89.9% range were tobacco at 89.9%, food and beverages at 89.4%, miscellaneous manufacturing industries at 88.9%, textiles at 88.1%, metal fabricating at 87.8%, rubber and plastics at 87.4% and electrical products at 87.2%.

18.2 Federal assistance to manufacturing

The industry, trade and commerce department (ITC) is responsible for stimulating the establishment, growth and efficiency of the manufacturing, processing and tourist industries in Canada, and also for developing export trade and external trade policies. It assists Canadian industries to initiate and take advantage of technological advances, improve products and services, increase productivity and expand domestic and foreign markets through a variety of programs and services. At each phase of the product cycle — from research, development and design through production and marketing — the department can assist with information and funds.

The department of regional economic expansion (DREE), under the Regional Development Incentives Act, provides grants to business and industry to establish,