became too large for their limited depth. Improvements began the following year, but were suspended during World War I. They were finally completed in 1932 at a cost of \$132 million. This was the first step in the development of the St. Lawrence Seaway. The growing needs of commerce, the increasing size of vessels with deeper drafts, and competition from the railways pointed to the desirability of finishing the St. Lawrence Seaway. Opening in 1959, the 400-year dream of a deep waterway extending from the Atlantic Ocean to the Great Lakes finally became a reality. This seaway has made it possible for Canada to become a world leader in the export of grain. It has also provided low cost transportation for raw materials, and has benefited all other modes of transportation as all goods carried by the seaway must be transported to or from the seaway.

While Canada's waterways were enjoying popularity and growth, the country's ocean shipping and shipbuilding industries were declining. In the earlier part of the 20th century, competition from foreign flag vessels, and the introduction of iron and steel ships saw Canadian shipbuilding and vessel ownership decline. This deterioration continued to the point of near extinction for the industry until World War I. The war gave new life to the industry. By 1918, Canada emerged among the largest merchant fleets and shipbuilding capacities in the world. The depression of the late 1920s and 1930s coupled with growing competition from other Maritime nations brought about a second decline in Canada's shipping industry. At present, Canada's shipbuilding industry continues to experience a lull in activity.

## 13.5.1 Freight movement

Shipping traffic. In domestic shipping, tabulations exclude vessels of less than 15 net register tons (equivalent to 42 m<sup>3</sup>), Canadian naval vessels and fishing vessels. A register ton is an internationally recognized measure used to indicate the capacity of space within the hull and the enclosed spaces above the deck of a vessel.

In 1986, over 41.4% of the total 328 million tons registered in domestic and international shipping were handled at five ports, namely Vancouver, Sept-Îles-Pointe-Noire, Montreal-Contrecoeur, Port-Cartier and Thunder Bay. These ports collectively accounted for over half of the international tonnage and over one quarter (28%) of the domestic tonnage. With over 57.2 million tons handled in 1986, Vancouver is Canada's busiest and most important port; 176.6% more freight passed through its harbours than the next busiest port, Sept-Îles-Pointe-Noire, at 20.7 million tons.

The number and net register tonnages of vessels entering Canadian customs and non-customs ports are shown in Table 13.19. In international seaborne shipping in 1986, 5.8% more ships entered Canadian ports than in 1985. Net register tons continued its downward slide — the 1986 total was 1.3% less than the 1985 total.

In domestic shipping, the number of vessels entering Canadian ports in 1986 was 5.9% less than 1985; the total of net register tons was down 4%.

Freight movement through major ports and provincial totals are shown in Table 13.20. Total cargo handled at Newfoundland ports increased 2% in 1986 from its total in 1985. St. John's decreased 13.7% between 1985 and 1986; Long Harbour increased 21.5%. Prince Edward Island ports experienced a decrease in total cargo loaded and unloaded of 26.7% in 1986 from its total in 1985 of 674 300 tonnes. Nova Scotia ports had a minimal decrease of less than .5% in the movement of outbound and inbound cargo during the same period. In contrast, the province of New Brunswick had an increase of 31.4% in port activity in 1986. At its most important port, Saint John, total loaded and unloaded cargo increased almost 46% between 1985 and 1986. Total cargo loaded and unloaded in Quebec in 1986 declined 1.7% from the corresponding total in 1985, but declined 9.3% in comparison with 1984. Sept-Îles-Pointe-Noire, one of Quebec's busiest ports, had a decrease in activity of 7.4% between 1985 and 1986. At another important port, Montreal-Contrecoeur, total loaded and unloaded cargo handlings increased 8.5% in 1986 from 1985. In Ontario, the decline in total cargo loaded and unloaded continued from past years; the 1986 total was 1.3% less than the 1985 and 13.7% less than the 1984 total. Thunder Bay, the busiest port in the province, remained fairly stable with a slight increase in port activity of 1.9% in 1986 from the total in 1985. At Churchill, Man. the total was up 66.5% in 1986 from 1985, and up 36% from 1984. British Columbia's total cargo loaded and unloaded changed minimally during the 1984 to 1986 period. In the Northwest Territories and Yukon, cargo tonnage loaded and unloaded increased 26.8% from 1985 and increased 20.2% from 1984.

Principal commodities loaded and unloaded at Canada's leading ports handling large tonnage are shown in Table 13.21. Hamilton had the largest increase in international loadings with a 42.7% increase from 1985. Montreal ports had the second largest increase at 9.1%. Quebec City ports had the largest decrease with 35.9%.

With respect to international unloaded cargo, Quebec showed the largest increase of 174.9%