

British Columbia Exports To United States Move Increasingly By Truck

Two thirds of British Columbia exports are destined for the U.S. market, crossing the border by road, rail, sea, air, pipeline or powerline.

The relative importance of these different modes of transport has been changing. New export products and new ways of doing business have increasingly favoured truck transport over other shipping services.

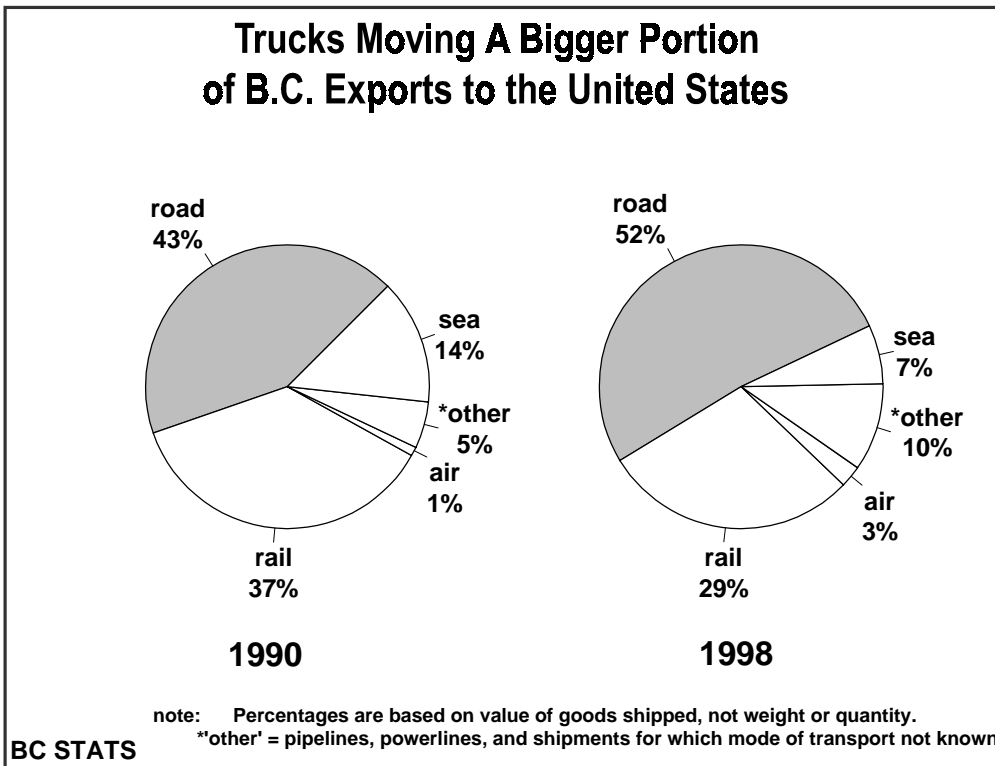
Over one half (52 per cent) by value of 1998 British Columbia exports to the United States were carried by road. This amounted to one third of all exports to all destinations, by all modes of transport. Use of air transport has been growing even

faster, but still amounts to only 3 per cent of all goods shipped to the United States.

Increasing reliance on road transport reflects the continuing diversification of the province's export mix away from bulk resource commodities, and has important implications for transportation infrastructure planners. Fast, reliable, and competitively priced road transport connections with U.S. destinations have become a critical factor for export growth, particularly for exports of higher valued secondary manufactured products.

The trucking industry has been expanding to meet new demand for its services. Trucking, including domestic and interna-

tional services, is now the largest and fastest growing transport industry. It employs about 20 per cent of all workers in the transportation, storage and communications sector, and contributed \$1,100 million to 1997 gross domestic product (constant 1992 dollars). The B.C. Trucking Association reports 500 carriers in the province, operating 12,000 pieces of equipment.



Rail Exports Level Off In Mid 1990s, As Truck Exports Continue to Grow

Road transport has leapt ahead of rail during the 1990s, in terms of the value of exports shipped to the United States. At the beginning of the decade, the value of exports to the United States by rail was almost as much as the value carried by road. Both rose together up to 1994, when there was a negligible \$32 million between the two.

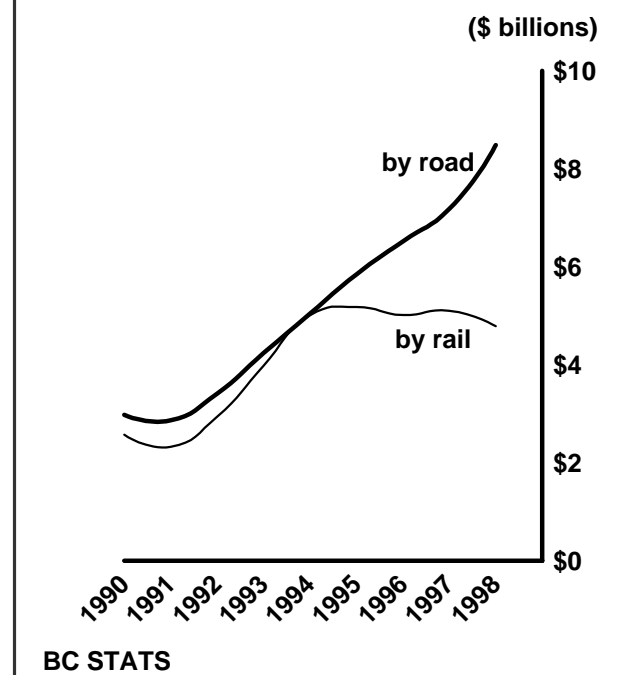
But beginning in 1995, the value of goods being exported to the United States by rail levelled off, as the value of exports shipped by road continued to climb. By 1998, the portion shipped by road had increased to over half of all exports to the United States, while the portion shipped by rail had fallen to less than a third.

The poor growth performance of rail delivered exports to the United States is largely explained by their concentration in resource commodities. They are mainly metallic mineral products, pulp, and especially lumber.

Lumber accounted for 59 per cent by value of all rail transported exports to the United States in 1998, as compared to 24 per cent for sea exports and 18 per cent for road exports.

Heavy reliance on lumber export traffic has meant that rail carriers have been more affected than other freight transportation services by the constraints of the Canada – U.S.A. Softwood Lumber Agreement. The Agreement dampened what might otherwise have been much stronger growth in the volume of lumber shipments to a robust U.S. construction industry, had no trade restricting regulations been in force.

**B.C. Road Exports to U.S. Soar
As Exports By Rail Level Off**



The overall value of rail transported exports to the United States has also been adversely affected by low prices for many resource products in the second half of this decade. These have partly been the indirect result of the Asian economic crisis and of slow growth in major continental European economies. But to some extent they also reflect growing international competition, something that is less easily dismissed as a cyclical factor.

Sea transport has traditionally moved less by value of the province's total exports to the United States than has been moved either by road or by rail. During the 1990s, sea shipping has slipped even further behind, in terms of the value of total exports shipped. By 1998 sea transport (ship or barge) delivered only 7 per cent by value of all exports to the United States market, down from 14 per cent in 1990.

The value of air exports to the United States has risen faster than exports by road or any other mode of transport. Between 1990 and 1998 air exports to the United States jumped 474 per cent, far exceeding rises of 185 per cent for road, 86 for exports by rail, and 10 per cent for exports by sea.

Despite their fast rate of growth, air freighted exports still amount to only 3 per cent of British Columbia exports to the United States in 1998. But if they continue to expand as rapidly as they have through most of this decade, as seems likely, air transport could soon rival sea transportation in terms of the total value of goods delivered to the United States market.

in electricity and natural gas exports over that period.

Flexibility Giving Road Transport the Edge

Each mode of transport can claim its own particular advantages for shipping goods to the United States market. These advantages determine the particular types of export products each mode is most suited to carry. For example, standard bulk commodities moving long distances are often shipped by rail. Small, high value products such as fresh oysters, precious metals, or high priced electronic equipment are often shipped by air. Bulk commodities located

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-----------------------------|------|------|------|------|------|------|------|------|------|
| Road | 43% | 43% | 43% | 42% | 41% | 44% | 47% | 48% | 52% |
| Rail | 37% | 35% | 37% | 40% | 41% | 39% | 36% | 34% | 29% |
| Water | 14% | 14% | 11% | 10% | 9% | 10% | 9% | 7% | 7% |
| Air | 1% | 1% | 2% | 2% | 1% | 2% | 2% | 3% | 3% |
| pipe & powerline | 5% | 6% | 8% | 6% | 8% | 5% | 6% | 8% | 10% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

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The very fast growth in exports transported by air has largely come about because of the growing high value electronics and food product component in shipments to the United States. It may also have been facilitated to some extent by the expanding volume of belly cargo space available on passenger aircraft travelling to U.S. destinations.

The combined value of exports by pipeline and powerline has also been rising fast. It climbed more the 340 per cent between 1990 and 1998, reflecting solid increases

within easy range of the coast or on islands may be best carried by ship or barge.

Typical truck cargoes are less easily defined because road transport is flexible enough to move almost any kind of product. Truck carriers can ship long or short distances; can carry loads that are heavy or light, large or small. They can reach any point accessible by road, and can sometimes adjust their routes and schedules as circumstances require.

These are advantages that point to a bright future for trucking in the new economy. Paul Landry, President of the British Columbia Trucking Association, feels that the flexibility of trucking allows his industry to offer the higher levels of service that are coming to be expected in modern business. 'Customers today will pay a premium for service that includes delivery to their

services with guaranteed 48 hour or 72 hour deliveries.

Mr. Landry feels that the advantages offered by truck transport over rail or sea transport are becoming more important as international trade expands to include a greater variety of goods, shipped in smaller quantities, to more destinations.

**Wider Range of Products
Moved By Truck Transport**

(per cent of 1998 B.C. exports to U.S. by product type)

| | by Road | by Rail | by Water | by Air | by * Other |
|--------------------------|---------|---------|----------|--------|------------|
| Wood Products | 32% | 68% | 37% | 0% | 0% |
| Pulp & Paper | 10% | 19% | 29% | 0% | 0% |
| Agri-food | 9% | 0% | 0% | 1% | 0% |
| Fish Products | 5% | 0% | 1% | 6% | 0% |
| Metallic Minerals | 1% | 9% | 0% | 1% | 0% |
| Energy Products | 0% | 0% | 11% | 0% | 83% |
| Machinery/Equip. | 26% | 0% | 5% | 75% | 0% |
| Plastics | 3% | 0% | 0% | 1% | 0% |
| Apparel | 2% | 0% | 0% | 2% | 0% |
| other | 13% | 3% | 17% | 14% | 17% |
| Total | 100% | 100% | 100% | 100% | 100% |

* other =pipelines, powerlines, and shipments for which mode of transport is not recorded.

He is also encouraged that British Columbia's exports are becoming more processed or 'value added', noting that this works in favour of truck transport because the higher weight/distance charges associated with trucking, relative to rail and sea transport, become less significant when the unit value of the product being shipped is higher.

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own premises on a particular day,' he says, underlining truckers' ability to meet 'just in time' delivery requirements.

Questioned as to whether the fast rising use of air freight poses a threat to the trucking industry, Mr. Landry replies that 'air shipping is not a factor,' pointing out that its expensive rates restrict it to a limited variety of high value products.

He believes that new shipping business being generated through the rapid rise of E-commerce transactions will benefit both air carriers and truckers, adding that the companies to benefit most will be those offering integrated (truck and air) delivery

New Export Products to United States Moving Mainly By Truck

Many of British Columbia's new high value export products fit into the broad category of machinery and equipment. Shipments in this category increased from 9 per cent of all exports to the United States in 1990, to 16 per cent in 1998. Most moved by truck. The truck transported component of machinery and equipment going to the United States has ranged between 93 per cent and 83 per cent during this decade. It was 85 per cent in 1998 - \$2,166 million out of \$2,552 million machinery and equipment exports travelling by all modes of transport.

Truck transport is also the principal mode of transport for most other categories of fast growing exports to the United States. For example, 100 per cent (\$117 million) of vegetable products were shipped from British Columbia to the United States by truck in 1998, as were 98 per cent (\$266 million) of plastic products, and 87 per cent (\$178 million) of apparel products.

The forestry industry has been making greater use of truck transport as it has been expanding the value added component of its exports to the United States.

In general, the chances that a forestry product will travel by road to the United States increase with its value added con-

tent. For example, the 1998 portion of miscellaneous value added solid wood products shipped by road was 78 per cent, while the portion for plain lumber was 33 per cent.

Similarly with pulp and paper exports, finished goods are far more likely to be shipped by road than by rail or by sea. Exports to the United States of miscellaneous and mainly value added paper products (boxes, envelopes, etc.) went almost entirely by road (94 per cent). For fine papers the portion was 58 per cent; for newsprint it was 34 per cent; but for pulp was only 18 per cent.

| Many of the Fastest Growing Export Categories Are Shipped Mainly By Truck | | | | | |
|--|----------------------------------|---|----------------|-----------------|---------------|
| | 1990-98 | (% of 1998 B.C. exports to U.S.) | | | |
| | Export Growth to U.S. | by Road | by Rail | by Water | by Air |
| plywood | 611% | 62% | 37% | 1% | 0% |
| selected value added wood | 236% | 78% | 0% | 0% | 0% |
| paper (exc. Newsprint) | 348% | 58% | 36% | 6% | 0% |
| vegetables | 764% | 100% | 0% | 0% | 0% |
| Machinery/Equip. | 296% | 85% | 1% | 2% | 12% |
| Plastics | 458% | 98% | 1% | 0% | 1% |
| Apparel | 428% | 87% | 7% | 1% | 5% |
| <i>all other export products</i> | 99% | 40% | 37% | 9% | 1% |

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