Statistics Canada
www.statcan.gc.ca

SPPI for Mainline Freight Rail Transportation Services in Canada

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Definition of the service (1)

- By industry - NAICS 2007
  - 48211 Rail Transportation
    - 482112 Short-Haul Freight Rail Transportation US
    - 482113 Mainline Freight Rail Transportation CAN
    - 482114 Passenger Rail Passenger CAN

Definition of the service (2)

Table 1: NAPCS for Rail Freight Transportation

482002	Rail freight transportation services
482002.1	Transportation of bulk liquids and bulk gases in intermodal tank containers by rail
482002.2	Transportation of bulk liquids and bulk gases, except in intermodal tank containers, by rail
482002.3	Transportation of dry bulk, except in intermodal containers, by rail
482002.4	Transportation of climate-controlled boxed, palletized and other packed goods, except in intermodal containers, by rail
482002.5	Transportation of boxed, palletized and other packed goods, not climate-controlled, not in intermodal containers, by rail
482002.6	Transportation of climate-controlled intermodal containers, n.e.c., by rail
482002.7	Transportation of intermodal containers, not climate-controlled, n.e.c., by rail
482002.8	Transportation of automobiles and light-duty trucks by rail
482002.9	Transportation of livestock by rail
482002.1	Transportation of waste by rail
482002.11	Transportation of other goods by rail
482002.11.1	Transportation of truck trailers by rail
482002.11.2	Transportation of all other goods by rail

Pricing Unit of Measure (1)

- ***a) Type of Service***
  - *Carload*
  - *Inter-modal*

- ***b) Type of Equipment***
  - *Box car*
  - *Container*
  - *Flat car*
  - *Gondola*
  - *Hopper*
  - *Refrigerated car*
  - *Tank car*
  - *Trailer*
  - *Other freight car (as specified)*

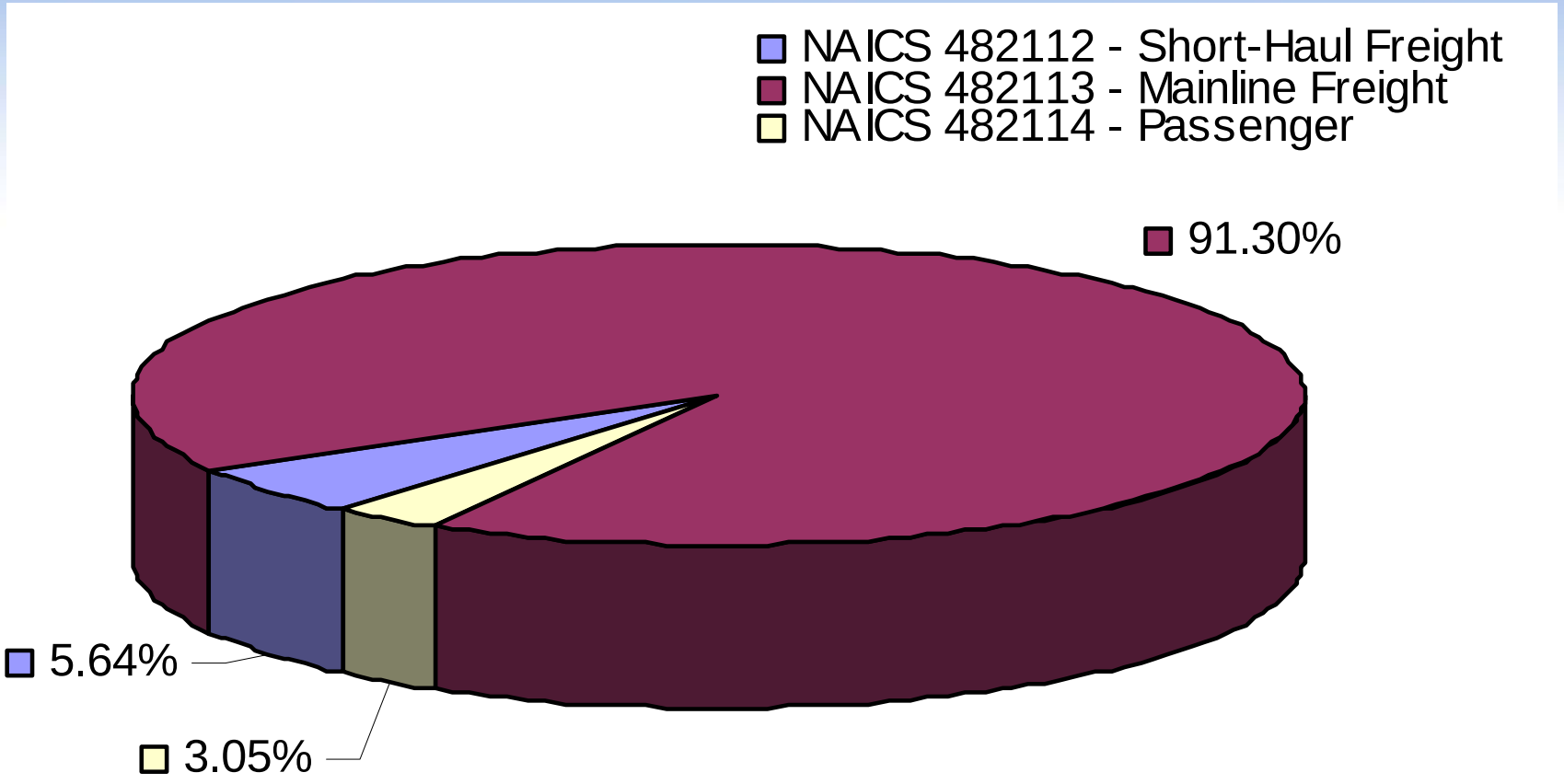
- ***c) Service Identification***
  - *Commodity by carload (i.e. assumed to be single carloads unless otherwise stated; differs for contract transactions)*
  - *Shipment weight and dimensions*
  - *Origin and destination of shipment*
  - *Route (direct or indirect)*

Market conditions (1)

- Total operating revenues for the Canadian railway industry rose 0.8% to $10.5 billion in 2007, the 9th consecutive year an increase has occurred.

- Rail transport of freight was $9.4 billion (90.0%) of the industry's total operating revenues.

Market conditions (2)
Revenue breakdown



Market Conditions (3)

- 2 main carriers; Canadian National (CN) and Canadian Pacific (CP).

- In 2006, the revenue share of the rail freight carrier market held by CN was 53.92% and the share held by CP was 40.26%, while all other carriers contributed only 5.82%.

Record keeping practices

- CN and CP both maintain online public tariff publishing system
- Updated regularly
- Provides detailed descriptions and pricing information for all commodities
- Information on fuel and other surcharges also available

Standard classification structure and product detail levels

Price determining characteristics,

- Commodity
- Shipment/STCC code
- Route
- Origin/destination
- Type of equipment
- Description of car

Evaluation of standard vs. definition and market conditions

Table 3: Top 10 Commodities Moved By Rail

SCTG Code	Commodity	2006	Percent of Total Tonnage
		tonnes	*percent (%)*
15	Coal	31,971,009	11.30
42	Mixed loads or unidentified freight	25,422,961	8.99
02	Wheat	21,774,627	7.70
14	Iron ores and concentrates	20,476,705	7.24
26	Lumber	14,850,395	5.25
22	Potash	13,593,163	4.81
20	Other basic chemicals	10,719,670	3.79
27	Wood pulp	9,351,638	3.31
13	Sulphur	7,849,352	2.78
26	Other wood products (plywood, veneer)	7,670,458	2.71
	Total of the top ten commodities	163,679,978	57.88
	Other commodities	119,124,849	42.12
	Total tonnage of all rail commodities	282,804,827	100.00

Source: Statistics Canada. *Rail in Canada 2007*

National Account Concepts and Measurement Issues

- Real output is estimated indirectly. Using monthly GDP data, changes in constant price output are used as indicators of the growth rates in constant price value added.

- Constant price revenue is computed by using the base year revenues of one ton of freight through a distance of one kilometre, by commodity (note: this method differs from that used for rail passenger transportation).

GDP estimates – I/O tables by commodity

- Rail freight transportation industry is treated as a margin industry SNA

- Total operating revenues for this industry are distributed across all commodities based on results obtained from the RTS, RCODS, MRC.

- Transportation charges for a good form part of the eventual purchaser price concept - prior to other types of margins (i.e. wholesale, retail, etc.).

Pricing Methods and Criteria
Step 1 – What commodities?

CN	CP
Forest Products	Forest Products
Intermodal	Intermodal
Grains and Fertilizers	Grains
Petroleum and Chemicals	Industrial and Consumer Products
Metals and Minerals	Sulphur and Fertilizers
Automotive	Automotive
Coal	Coal

Pricing Methods and Criteria
Step 2 – Source for prices

- Company's website:
  - Offer/list prices - not transaction prices but movement is similar (2nd best option)
  - Very low response burden for an already heavily regulated sector

Pricing Methods and Criteria
Step 3 – Representative prices

- A concordance was created between each company's own commodity groupings and the SCTG classification.
- A set of origins and destinations was constructed according to the amount of tonnage (i.e. the busiest corridors) for a particular calendar year for each commodity (i.e. by SCTG).
- For each origin/destination route, well-known, larger cities which offered the specified commodity were then chosen.

Quality Adjustment and Methodology

Control for:

- The type of shipments (intermodal, commodity)
- The origin/destination of the shipment
- The terms of the shipment
- The type of price (contract, list/tariff, private quote, public/open quote, or other)

Comparability of turnover/output data with price indexes

- Identical samples for both turnover and SPPI (CN and CP)
- Activity data collected from the turnover surveys (operating revenues, tonnage, type of commodity transported and corridors) is being used to refine the sampling and price selection methodology for the SPPI.
- As a result, the turnover/output data and the SPPI series will be directly comparable.
- Main difference in periodicity (SPPI = monthly, Turnover in $ annual)

Questions?