

DERIVING TRAFFIC FLOWS
&
ASSESSING RAIL ACCESSIBILITY

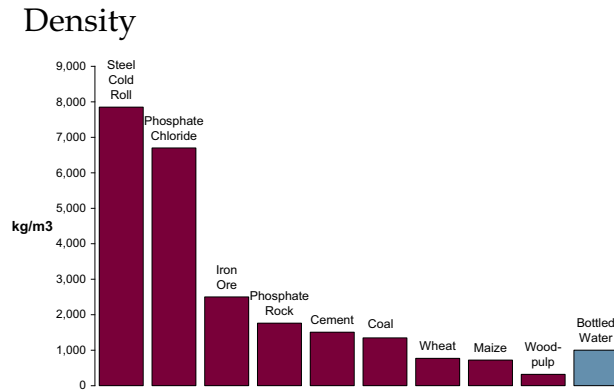
(EXAMPLE: BOTTLED WATER)

BACKGROUND

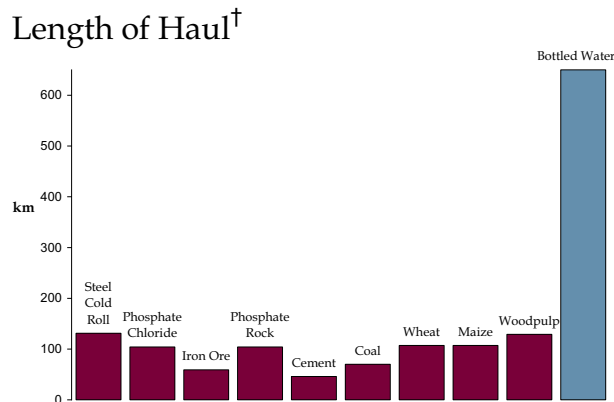
WHY BOTTLED WATER?

1. **Large Market.** Measured by Tonne-Kilometres, by 2009 the Bottled Water transportation market (all modes) is forecast to be a third of the current rail market for coal.

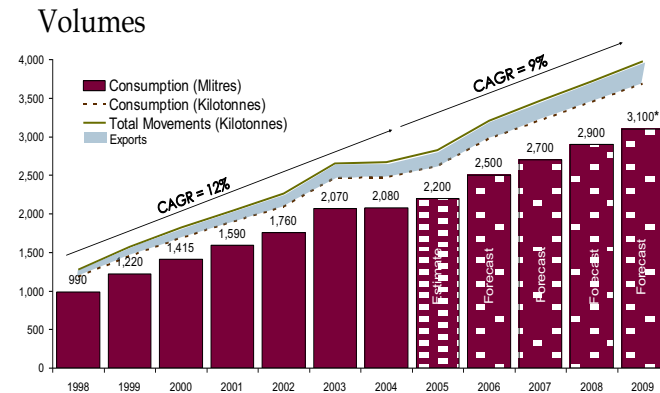
- A relatively high density (for a consumer good) ...



- ... combined with an average 650 km length of haul

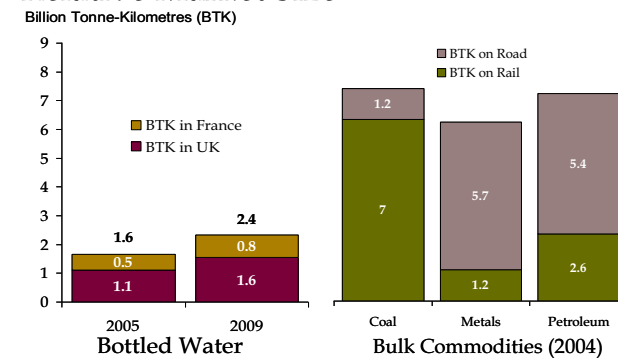


- ... and a rapid growth rate, result in significant tonnages



- ... and a proportionally large transportation market.

Relative Market Size



* On April 3, 2006, Zenith International stated that 2005 sales totalled 2,170 million litres and forecast a growth rate of "6-8% to almost 3,000 million litres by 2010."

† Apart from Bottled Water, distances are from road transport and are taken from commodity's parent category (e.g. Steel Cold Roll's parent is Iron & Steel Products)

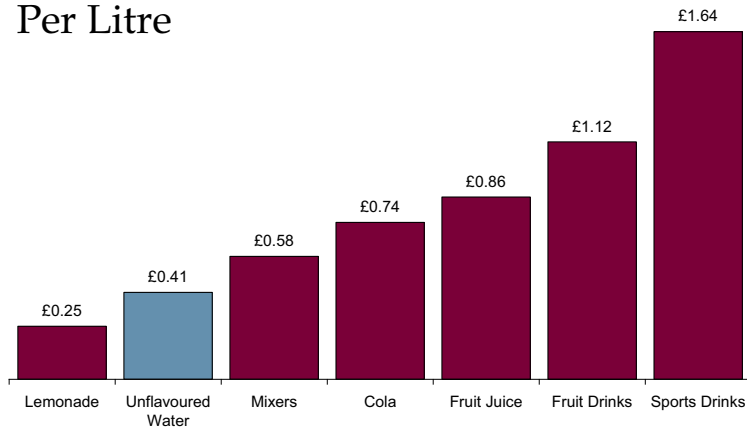
Sources: Simetric.co.uk; Transport Statistics Great Britain 2005; *A Guide to the UK Bottled Water Market from Highland Spring 2005*; Datamonitor Industry Market Research: Overview on Bottled Water, Feb 2004; team analysis

2. Transportation Costs Important. Freight cost is a significant proportion of product value for Bottled Water.

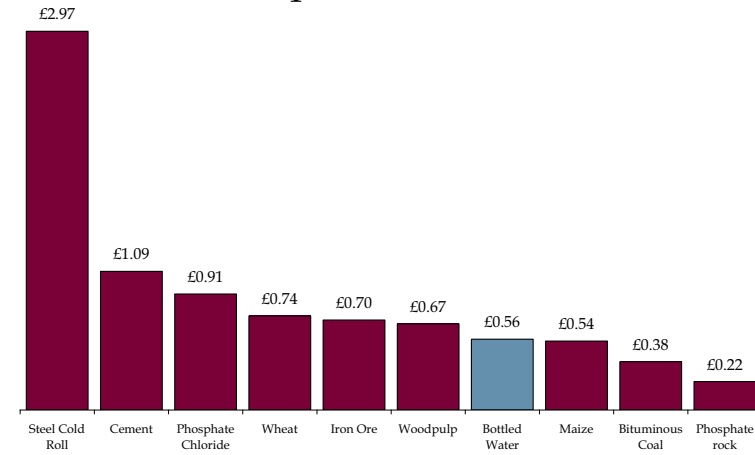
■ Relatively low value combined with a long LOH ...

■ ... results in a product value/tonne-kilometre lower than several bulk commodities.

Soft Drink Prices
Per Litre



Product Value per Tonne-Kilometre

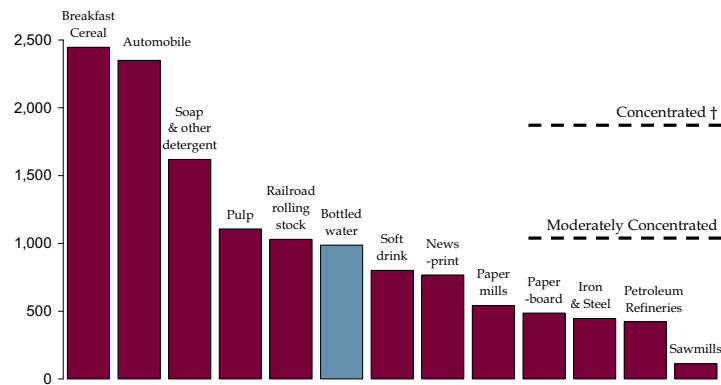


Sources: AC Nielsen Take Home JAN 2005; World Bank; team analysis

Industry and pack size concentration, together with long haul, imply both trainload and wagonload friendly traffic provided at least one end of each flow has a rail connection.

- As large natural springs are rare, industry concentration in Bottled Water is relatively high

Relative Industry Concentration Herfindahl Index

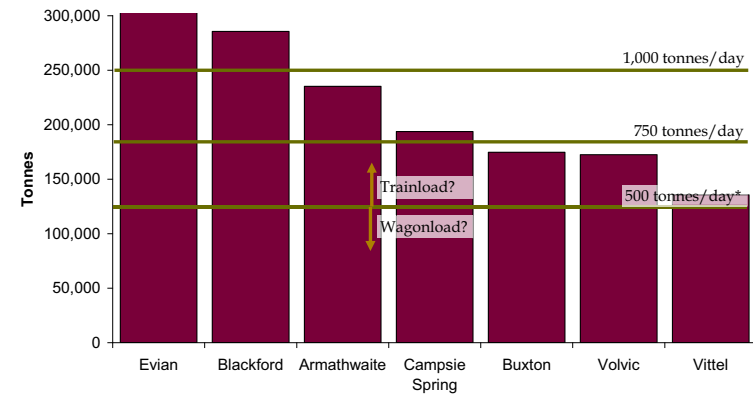


Note: Selected commodities, US Data; 1997 Manufacturing Census†

- ... with the result that top 7 production locations (accounting for 60% of total tonnes and 70% of tonne kilometres) ship more than 500 tonnes/day.

Total UK Bottled Water Movements

Top 7 Origins

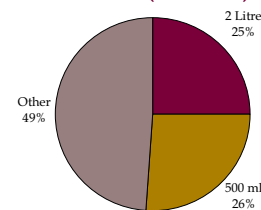


Note: Assumes 250 shipping days/year

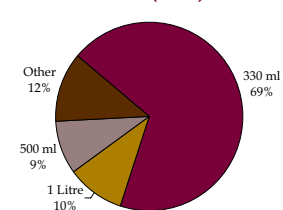
KEY PACKAGE SIZES

- Anecdotal evidence suggests that pack sizes are also concentrated, making a high proportion of homogeneous pallet shipments likely for these major producers.

Retail (Ireland)



Pubs (UK)



* GBFM suggests 500 tonnes/day as divider between wagonload and trainload traffic given at least one rail connection

† Levels considered by US Department of Justice for antitrust purposes; transactions that increase Herfindahl by more than 100 points presumptively raise antitrust concerns.

Sources: *A Guide to the UK Bottled Water Market from Highland Spring 2005*; Zenith International; flavourhouseireland.com; team analysis

APPENDIX 1

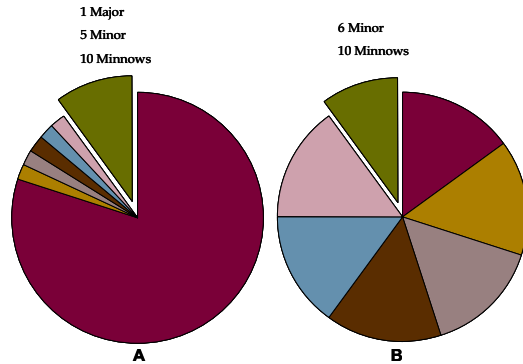
HERFINDAHL INDEX

The Herfindahl Index is a preferable measure of industry (or product) concentration than the combined market share of top firms (or products).

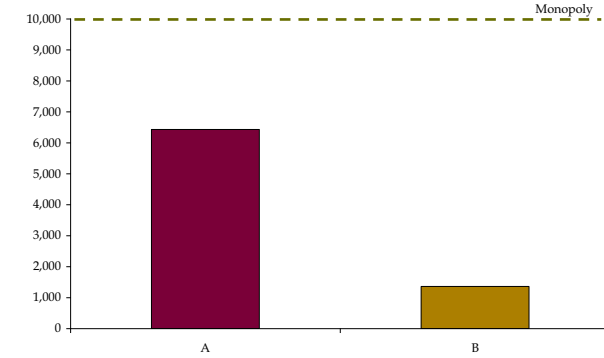
- Comparing 2 situations in which the top six firms both have a combined 90% market share...

- ...shows a much higher Herfindahl Index for the situation in which one firm is dominant.

Market Share Distribution



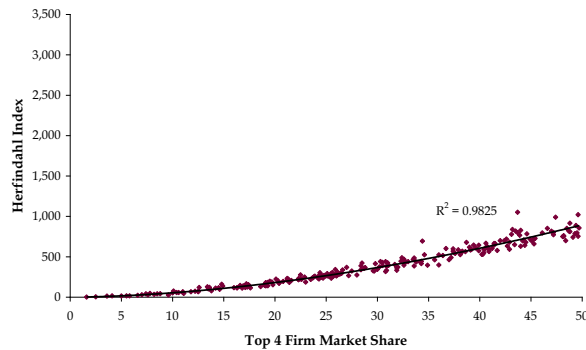
Herfindahl Index*



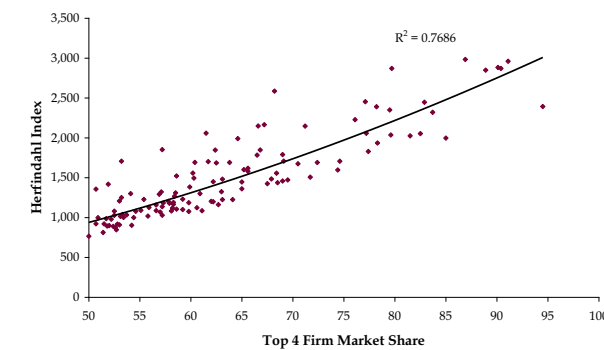
- For relatively low industry concentration, top firm market share is a satisfactory measure.

- However, as industry concentration increases combined market share can become misleading.

Correlation: Herfindahl Index to Market Share



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* Herfindahl = sum of squares of market shares; e.g. if there are two firms each with 50% market share, Herfindahl = $50^2 + 50^2 = 5000$

Sources: United States 1997 Manufacturing Census; team analysis