

## Developing Road Freight Indexes for Thailand

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### Objectives

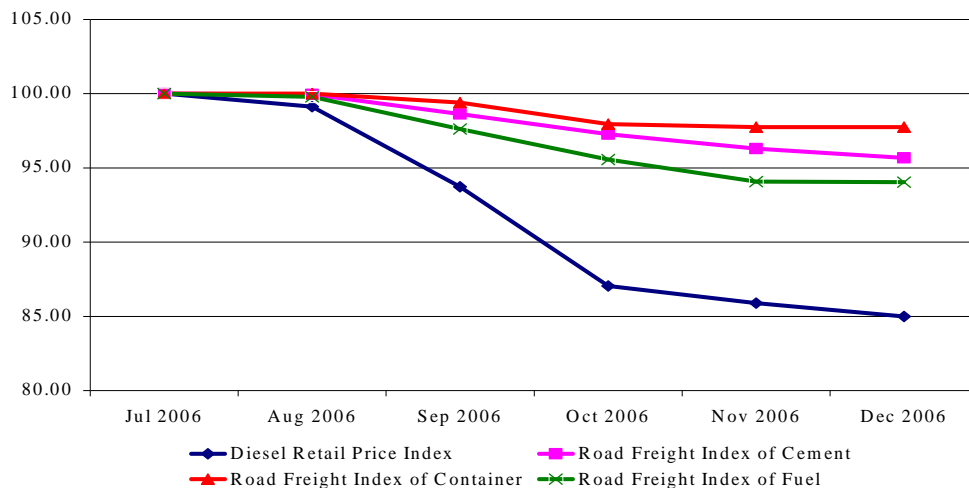
To develop road freight indexes models for Thailand. The main purpose of the research is to develop and calculate road freight indexes that can be used as reference in the provision of present and future freight charges.

### Methods

The literature was reviewed and combined with financial models used in established maritime transport freight indexes. This process led to the development of a financial model for road freight index in Thailand. Based on the financial model data requirement, a template questionnaire was created, pre-tested and utilised to collect data. Data was collected from key freight industry stakeholders.

### Results

From the data collected, three freight indexes were developed. Road freight indexes for cement, container and fuel transportation are presented for a 6 months period (between July to December 2006). These indexes are based on the respective commodities' main transportation routes.



The relationship between the diesel retail price index and the 3 freight indexes was explored and the following equations were derived to illustrate the relationship :

$$\begin{aligned}
 \text{Cement Road Freight Index} &= 0.268 \times \text{diesel retail price index} + 73.369 \\
 \text{Container Road Freight Index} &= 0.163 \times \text{diesel retail price index} + 83.868 \\
 \text{Fuel Road Freight Index} &= 0.396 \times \text{diesel retail price index} + 60.492
 \end{aligned}$$

## Conclusions

1. The Road Freight Indexes developed can be used to forecast future freight price for cement, container and fuel transportation in Thailand. However, more data is needed as the time period for data collection was too short.

2. The price elasticity of the 3 indexes compared to the diesel retail price index can be illustrated as:

$$\text{FUEL} > \text{CEMENT} > \text{CONTAINER}$$

**Keyword:** Road Freight Index, Freight Logistics, Reference Price, Transportation

## Selected Reference:

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