

Cost factor: Fuel The Floating Model

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How the development of fuel prices impacts overall costs – how the Floating Model works and how its calculations are determined

A cost analysis conducted by Schenker Deutschland AG determined that fuel costs account for 12 percent of all costs in the general cargo / network transport segment (as of Q4 2005).

This percentage was actually much higher in the part-load and full-load transport segments, namely between 25% and 30%.

In order to accurately take increasing fuel costs into account in its pricing, Schenker Deutschland AG uses for its price calculations the Index for Diesel Fuel Sales to Major Consumers published by Germany's Federal Statistical Office. This index offers all market participants a neutral and thus generally recognized point of reference for the so-called Floating Model. In accordance with this model, the diesel surcharge for general cargo / network transport should rise or fall by 0.5 percentage points each time the diesel price index rises or falls by 4 percent. Due to the fuel cost share in the total costs being twice too high, the base value for cargo transactions (LTL/FTL) changes by +/-1.0% points per +/-4% change in the index.

An example for general cargo / network transport for clarity:

- If fuel (diesel) accounts for 12 per cent of all costs associated with freight-forwarding / logistics operations, that means that €12 out of every €100 spent for operations is spent on diesel fuel. If the price for diesel rises by 4 percent, the resulting additional cost would be €0.48 (4 percent of €12 = €0.48 Euro). Fuel costs that have now risen to €12.48 increase total costs to €100.48, which corresponds to a 0.5 percent increase (rounded off) in total costs.

Naturally, the percent change in the diesel index is identical to the percent change in real diesel prices, which is why the index offers a legitimate basis for price calculations.



For Schenker Deutschland AG, the following formula therefore applies:

- Assuming the aforementioned 12 percent share of fuel prices in relation to total costs (general cargo / network transport segment), a 4-percent increase in the diesel index will increase total costs by 0.5 percent and the diesel surcharge by 0.5 percentage points.
- If the diesel index falls by at least 4 percent, total costs for general cargo / network transport will decrease by 0.5 percent and the diesel surcharge will decrease by 0.5 percentage points. Due to the fuel cost share in the total costs being twice too high, the base value for cargo transactions (LTL/FTL) changes by +/-1.0% points per +/-4% change in the index.
- The measurement basis for the Floating Model is the average level of the diesel index from the 4th quarter of 2005 (index = 100.8 base year 2015) resp. the average value of the diesel price from the 4th quarter of 2005. Both values correlate.

	average index (base year 2015)	average index (base year 2021)	average price EUR per 100l
4th quarter 2005	100,8	Not available yet	92,00

- The surcharge was 4 percent when the Floating Model was introduced.

Changes of 0.5 percentage points in general cargo / network transport segment and 1 percentage point in the cargo transactions (LTL/FTL) are only made to the surcharge if a difference of at least 4 percent from the base value is reached (plus or minus). Fluctuations up to and including 3.9 percent have no effect on the level of the surcharge.

Efficiency gains accomplish a lot – but are not enough by themselves

Companies cannot influence the development of energy prices – but they can take measures to reduce their energy consumption.

Schenker Deutschland AG has been making a major effort in this regard for years now. Examples include:

- Increased use of large-volume trains
- Implementation of driver training courses that focus on "economic driving."
- Control of transports via central hubs (avoidance of empty runs, better exploitation of truck capacity, optimization of transport processes)

These and many other efficiency enhancement measures have reduced energy consumption. Nevertheless, they cannot completely compensate for the rise in diesel prices.