SIKA Report
Summary

2005:6

The development of Swedish transport through to 2020

Swedish Institute for Transport and Communications Analysis

About SIKA

Swedish Institute for Transport and Communications, SIKA, is an agency working in the transport and communications sector. Our main tasks are to make analyses, descriptions of the current situation and other reports for the Government, to develop forecast and planning methods and to be responsible for the official statistics.

The reports are published in the series *SIKA Rapport* and *SIKA PM*. The statistics are published in the series *SIKA Statistik,* in the journal *SIKA Kommunikationer* and in the *Transport and Communications* yearbook. All publications are available on SIKA's website www.sika-institute.se.

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Background

SIKA has been commissioned by the Swedish Government to produce forecasts for the development of transport in Sweden through to 2020 in consultation with and with the help of the National Rail Administration, the National Road Administration, the Swedish Maritime Administration and the Civil Aviation Administration.

The reports on the commission include the publications *Global Environmental Conditions for Transport Forecasts* (SIKA Report 2005:7), *Forecast for Passenger Transport 2020* (SIKA Report 2005:8), *Forecast for Goods Transport 2020* (SIKA Report 2005:9) and this report, which is a summary of the above three.

Conditions

The purpose of this report is to present national forecasts for goods and passenger transport in Sweden through to 2020. Producing forecasts for transport requires information on infrastructure, traffic operation, transport and costs, and also factors outside the sphere of transport. These global environmental conditions include data on economic development, population, employment, incomes, industry, foreign trade etc.

The forecasts have been produced for two macroeconomic global environmental scenarios, a main scenario and an alternative scenario In addition to this, a number of sensitivity analyses have been made to illustrate how certain external factors affect the forecasts.

Other important calculation conditions include:

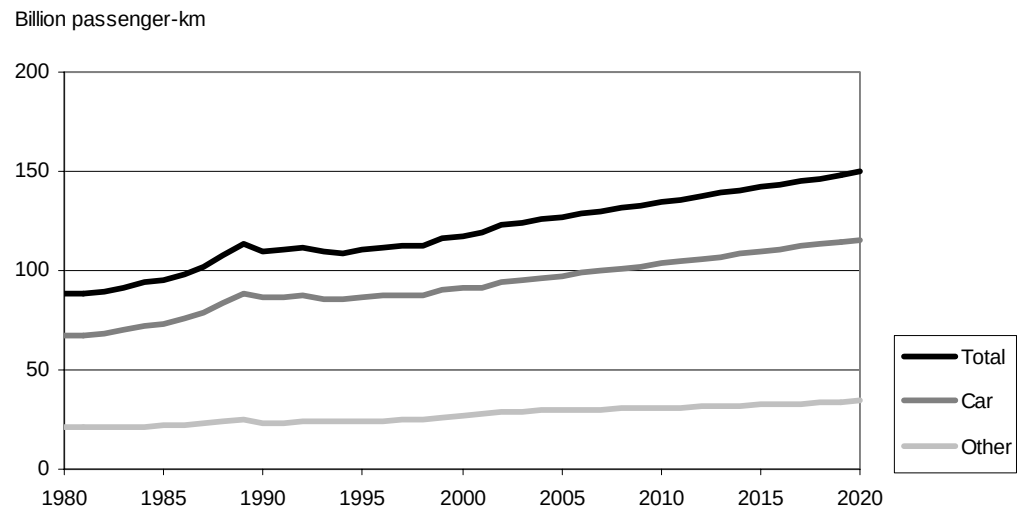
- Infrastructure development according to current plans.
- Unchanged ticket and fuel prices in real terms.
- Reduced fuel consumption for cars (17 per cent between 2001 and 2020).

Forecast for passenger transport in 2020

The forecast for passenger transport shows a continuing increase in transport, a trend we have seen for a large number of successive years. We are making more journeys and each journey is faster and longer. Private leisure travel continues to increase at a greater rate than travel for other purposes. The car is now by far the dominant form of passenger transport and in terms of the conditions on which the forecast is based, it will retain this special position at least over the next fifteen years. Air and rail travel are experiencing a much more rapid development, while bus travel, walking and cycling are increasing more slowly than the average trend.

Passenger transport is expected during the forecast period and according to the main scenario to increase by approximately 32 billion passenger kilometres, which corresponds to an increase of 27 per cent. The growth in car travel is expected to account for the largest absolute increase, while the growth in air travel is expected to see the greatest increase from a relative point of view.

The development of passenger transport is greatly affected by the price of travel. A sensitivity analysis has been carried out on the basis of high ticket prices for public transport and high fuel prices. The other forecast conditions are the same as in the main scenario. The result of the analysis shows a considerably lower development of travel during the forecast period, 17 per cent against 27 per cent in the main scenario. Car travel, long-distance rail travel and short-distance public transport are most affected by the increased prices and see a substantially reduced development. Pedestrian and cycle journeys increase their proportion of the travel at the cost of short-distance public transport.



Passenger transport performance in Sweden 2001–2020, billion passenger-kilometres.

Forecast for goods transport in 2020

Through to 2020 goods transport of heavy raw materials is expected to decrease in importance, relatively speaking, while goods that have a high value (SEK) in relation to their weight (tonnes) are expected to increase. Goods transport flows to, from and through Sweden are expected to grow more rapidly than flows of domestic goods transport.

Goods transport during the forecast period is expected, according to the main scenario, to increase by about 21 billion tonne-kilometres, corresponding to an increase of 21 per cent. Growth on the roads is expected to increase by 31 per cent through to 2020, on the railways by 16 per cent and by sea by 12 per cent.

A sensitivity analysis has been carried out for goods in which goods trains are given priority over passenger trains, i.e. the whole capacity in 2020 can be used for goods traffic. The result of the analysis indicates a fairly substantial redistribution from road to rail. The result shows that the distribution of capacity increases in the railway infrastructure may be of considerable importance in terms of the distribution of the transport performance between road and rail.

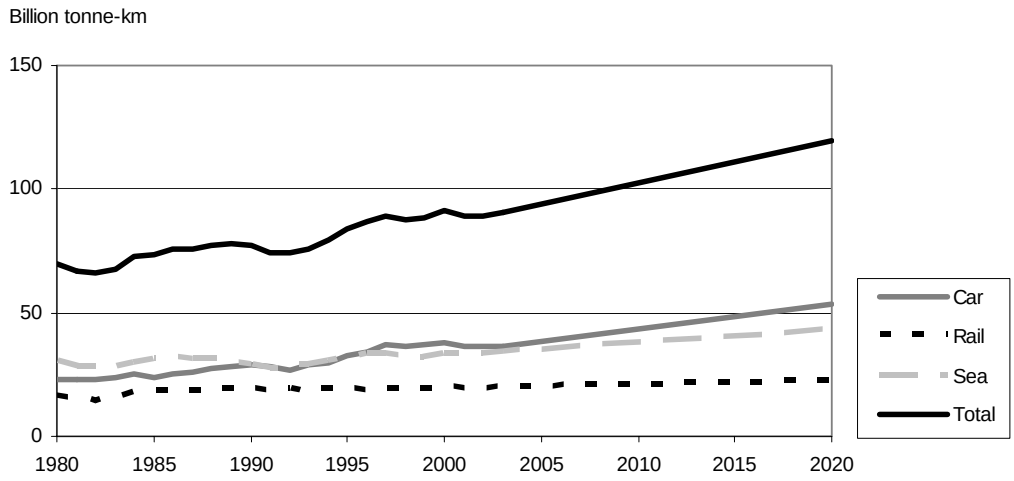
In order to show the importance of fuel costs for transport development sensitivity analyses have been carried out, both for goods transport and passenger transport, based on an assumption of higher crude oil prices in the forecast year. In this report sensitivity analyses have been carried out based on the assumption of a crude oil price of 50 dollars per barrel in 2020[1].

The results of the analyses for passenger transport show that the development of the total result through to 2020 is affected to a relatively minor degree but that

[1] A separate analysis with even higher crude oil prices has been carried out and reported in SIKA PM 2005:19 *(only available in Swedish).*

travel by different means of transport is affected more tangibly. Compared with the main scenario, travel by rail and bus increases more in the analysis with a higher crude oil price, while car travel sees a lower increase.

The results of the analyses for goods transport show that the goods transport performance decreases most for goods transport by road and that there is a substantial redistribution from road and sea transport to rail.



Goods transport performance in Sweden 1980–2020, billion tonne-km.