

FOREWORD

The diverse nature, location and size of the various agricultural value chains along the roads from farm gate to consumers present a highly complex transport matrix. Transport and logistical costs account for a substantial portion of the overall cost of food. Furthermore, there is a perception that food prices are driven up by high fuel prices but never come down when fuel prices drop. Cognisance should be taken that there are also other cost drivers affecting transport and logistical costs.

This report will address (i) selected vehicle cost over time, (ii) the diesel price over time, and (iii) the composition of the diesel price.

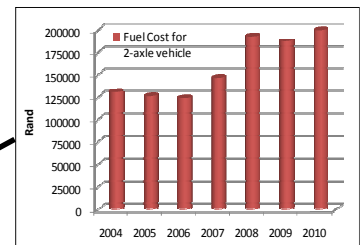
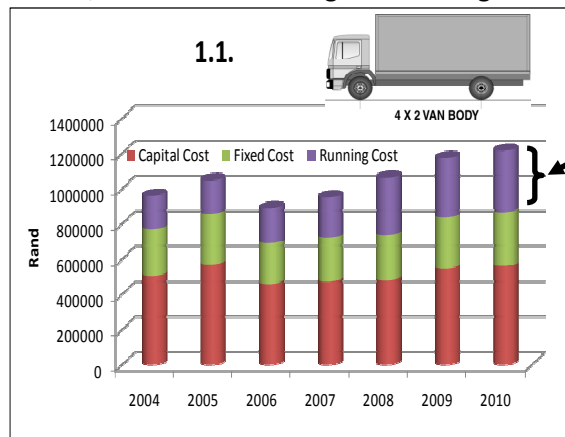
1. Vehicle cost over time

A wide range of vehicle configurations are used to meet the diversified transport needs of agricultural logistics. This is so regardless of whether such vehicles are owned and operated by farmers, producers, processors, manufacturers, distributors or providers of transport services. With a few exceptions, vehicles in standard execution (specification) readily available in a variety of sizes and configurations are employed to fulfil the many post harvest, distribution and delivery transport needs of agricultural value chains. Non-standard and abnormal load vehicles are exceptions that represent a small percentage of the overall transport requirements in agricultural logistics. Cattle Carriers and bulk flour tankers are examples of such specialised vehicles.

Based on the National Freight Database (NFD), three vehicle categories were chosen to represent vehicles typically used to transport agricultural products and livestock. The NFD categorises vehicles by their number of axles; this method is similar to that applied in the calculation of toll road fees.

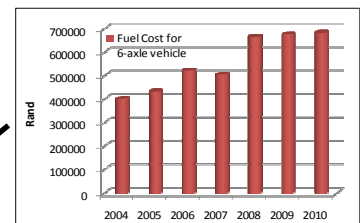
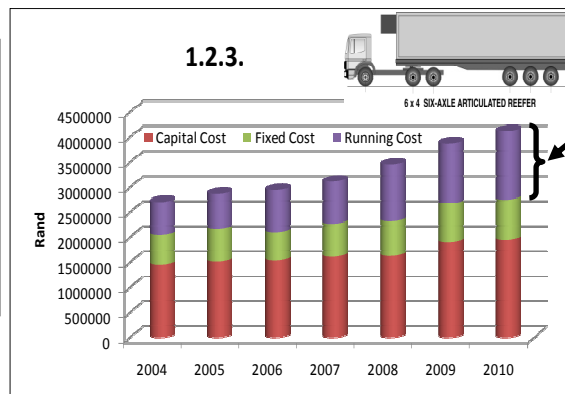
Figure 1 illustrates the vehicle cost composition over time for different sized vehicles¹. Fixed cost includes depreciation, cost of capital, licence, insurance and wages. Running cost includes fuel, oil, maintenance, tyres and incidental cost. The sum of fixed and running cost is total operational cost.

Cost increases for 2-axle vehicles from 2004 to 2010:
Capital cost: 10.7 %
Fixed cost: 16.3 %
Running cost: 81.9 %



Fuel's contribution to operating cost increased from 28.6 % in 2004 to 30.5 % in 2010. Fuel's contribution to running cost is 57.4 % in 2010.

Cost increases for 6-axle vehicles from 2004 to 2010:
Capital cost: 33.9 %
Fixed cost: 36.7 %
Running cost: 105.8 %



Fuel's contribution to operating cost remained at 31.9 % in 2004 and 2010. Fuel's contribution to running cost is 50.1 % in 2010.

¹ Assumptions: 1.1. – 85,000 km per annum, 260 work days, 8-ton payload and est. economical life of 8 years.
1.2.3. – 180,000 km per annum, 286 work days, 28-ton payload and est. economical life of 5 years.
1.2.2.2. – 200,000 km per annum, 286 work days, 36-ton payload and est. economical life of 4 years.

Cost increases for 7-axle vehicles from 2004 to 2010:

Capital cost: 31.4 %
 Fixed cost: 30.8 %
 Running cost: 117.9 %

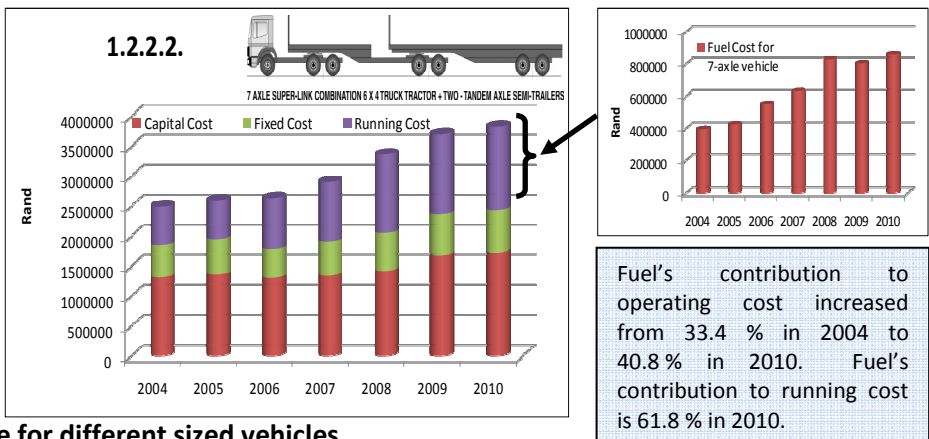


Figure 1: Vehicle cost over time for different sized vehicles

Note: The headings refer to the number of axles of each vehicle illustrated; 1.1 represents 2-axle vehicles etc.
 Data for 2010 is up to April.
 Source: Max Braun Consulting Services, 2010

2. The diesel price over time

Figure 2 illustrates the 0.05 % sulphur diesel price in Gauteng and at the coast. Variation in the diesel price is affected by the international oil price, the R/US\$ exchange rate and changes in taxes and levies. The diesel price peaked in July 2008, achieving an average rate of R11.36, with R11.43 in Gauteng and R11.30 at the coast. Since then, the average price has decreased significantly by 34.4 % to date. It is evident from the graph that the diesel price follows the international oil price with a slight lag time.

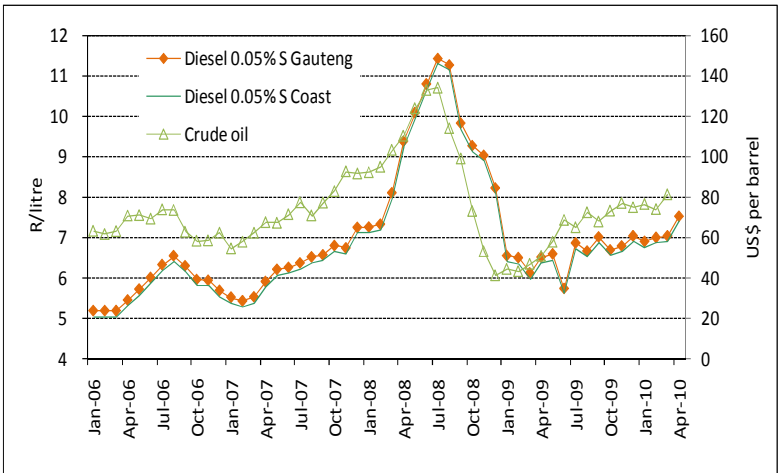


Figure 2: Diesel price in Gauteng and at the coast

Source: South African Petroleum Industry Association (SAPIA), 2010

The composition of the diesel price

Figure 3 illustrates the composition of the wholesale price of 0.05 % sulphur diesel in Gauteng, which is currently 751.95 cents per litre.

The Basic Fuel price (BFP) is the sum of the FOB value, freight, demurrage, insurance, ocean loss, cargo dues, coastal storage and stock financing. The BFP is currently 444.63 c/ltr or 59 % of the wholesale price. Other items listed in Figure 3 are levies and taxes that currently amount to 307.32 c/ltr or 41 % of the wholesale price. A detailed description of all the items making up the diesel price can be obtained from the: [Department of Minerals and Energy](#).

Cognisance should be taken that primary agricultural producers qualify for a rebate. This is 80 % of the sum of the Road Accident Fund (RAF) levy and 40 % of the fuel levy.

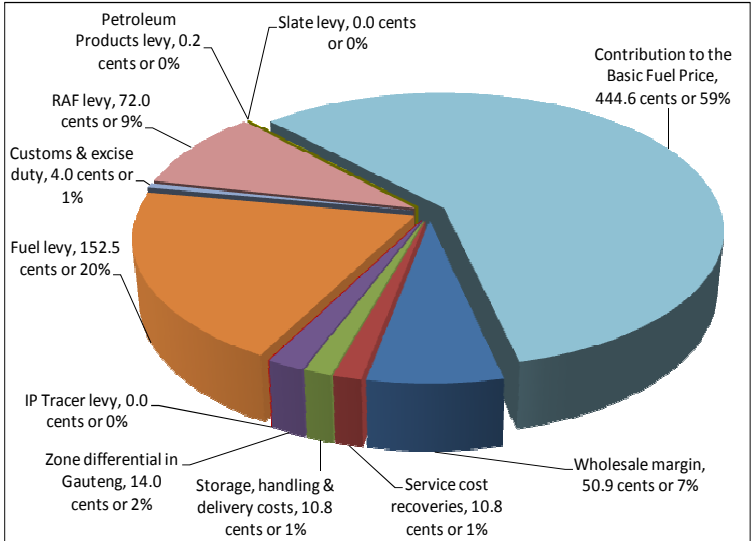


Figure 3: Composition of the wholesale price for diesel in Gauteng for the period 07/04/2010 to 04/05/2010

Source: SAPIA, 2010

3. Conclusion

The diesel price has risen 8.95 % since the beginning of the year (2010). Fuel once again represents more than 40 % of typical transport operating costs (excluding overhead expenses and toll fees) for large payload, long distance vehicles. As the second quarter begins, virtually all other transport cost drivers, with the exception of the interest rate (that declined by 500 basis points in late March), are following an upward trend. Since the beginning of the year, there have been increases in vehicle and equipment prices (by around 2 % to 3 %), drivers' wages in line with the industry wage agreement (by an average of 9 % to 9.5 %, depending on the job), and tyres, replacement parts and labour rates. The price of steel, rubber, aluminium, resins and timber are under pressure and are likely to rise in the next quarter, along with energy and other infrastructure cost increases.

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