



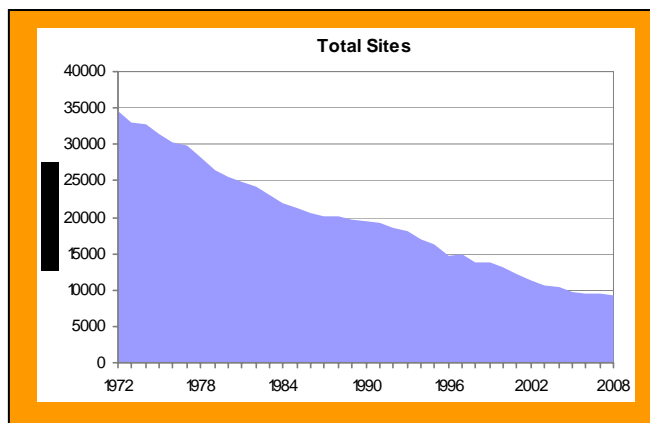
## Fuel Supply to Rural Filling Stations

- Fuel retailing in the UK is a very competitive business with pre-tax pump prices consistently amongst the cheapest in Europe
- In rural areas filling stations tend to have low throughputs of fuel requiring higher margins to cover operating costs
- Recently filling station closures have been averaging 450 each year, particularly smaller sites, due to a number of factors including strong competition between fuel retailers and the increasing costs of compliance with environmental regulations
- The pressures on rural filling stations mirror those of other rural services such as shops and post offices

### Background

Over the last sixteen years the number of filling stations in the UK has reduced dramatically from over 18,000 in 1992 to 9,264 at the end of 2008. Recently, around 450 filling stations on average have been closing each year (Figure 1). The pressures on rural filling stations mirror those of other rural services such as shops and post offices, but there are some specific features affecting the fuel sector.

Urban, main road and rural sites, whether oil company owned or independent, have all felt the impact of strong competition between fuel retailers and the increasing costs of compliance with environmental regulations.



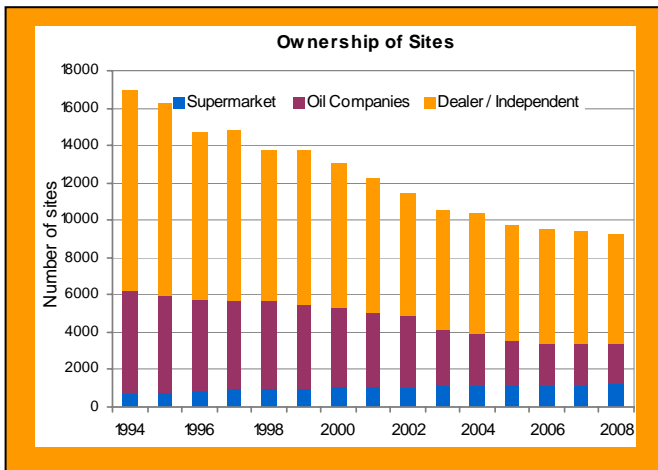
**Figure 1: UK Number of Total Sites, 1972 - 2008**  
 (Source: Catalyst 2006-2008- EI 1972-2005)

### Fuel Retailing in the UK

Fuel retailing in the UK is a high volume, low margin business, characterised by strong competition. These market conditions have hastened the closure of smaller, less well located sites, as retailers concentrate on higher volume sites capable of surviving in a lower margin environment.

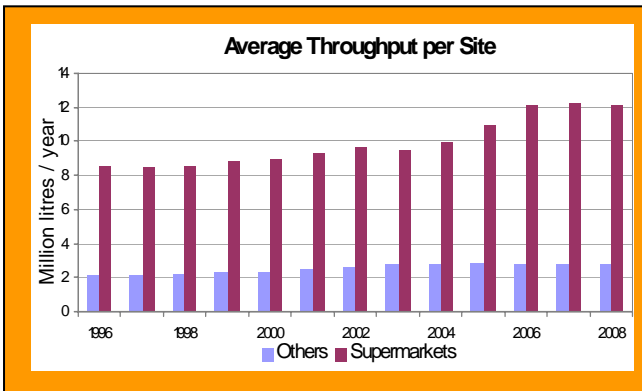
A fuel station's viability is influenced by a function of volume of fuel sold and the difference between the retail pump price and the ex-refinery cost price of the fuel.

This has favoured large service stations with lower overheads per litre sold, whilst many smaller filling stations, particularly in areas with lower population density, have been facing increasing challenges (or have become economically unviable). In recent years, whilst the number of filling stations owned and operated by both oil companies and independent retailers has declined, the number of supermarkets' sites has increased. Their share of the retail fuels' market has grown from 11% in 1992 to around 40% in 2008 (Figure 3), in an overall market which has seen little volume growth.



**Figure 2: Retail site closures, 1994-2008**  
(Source: Catalyst 2006-2008 – EI Retail Marketing Survey 1994-2005)

The supermarkets' growth in market share has coincided with a rapid expansion in the number of large out-of-town stores. The associated filling stations are able to sell large volumes of fuel (>12 million litres per year on average), particularly to people doing their weekly shopping, often cross-promoting a fuel discount to the amount spent in the main store. In comparison, the volume throughput of an average main road filling station may be around 4 million litres per year and that of a typical rural filling station may be less than 1-2 million litres a year (Figure 4).



**Figure 3: Average Throughput per Site, 1996-2008**  
(Source: DECC - EI - Catalyst)

Inevitably, the effect of strong competition together with low margins have come to represent one of the main causes for the closure of smaller or less well located filling stations, particularly in areas with lower population density.

### Influences on final pump prices

The UKPIA briefing paper 'Understanding Pump Prices' explains the market mechanisms affecting pump prices. Pre-tax pump prices in the UK are consistently amongst the cheapest in Europe. However, it is clear that final pump prices do vary and location and size are a significant influence.

	Unleaded Price Average 13/08/09	Diesel Price Average 13/08/09
<b>UK</b>	<b>104.1</b>	<b>104.6</b>
Scotland Region	103.8	104.7
Glasgow	103.0	103.4
Edinburgh	102.8	102.5
Rural Areas (Highland)	106.8	107.6
Wales Region	104.4	105.0
Cardiff	103.3	104.4
Newport	103.2	103.3
Rural Areas (Gwynedd)	106.6	106.8

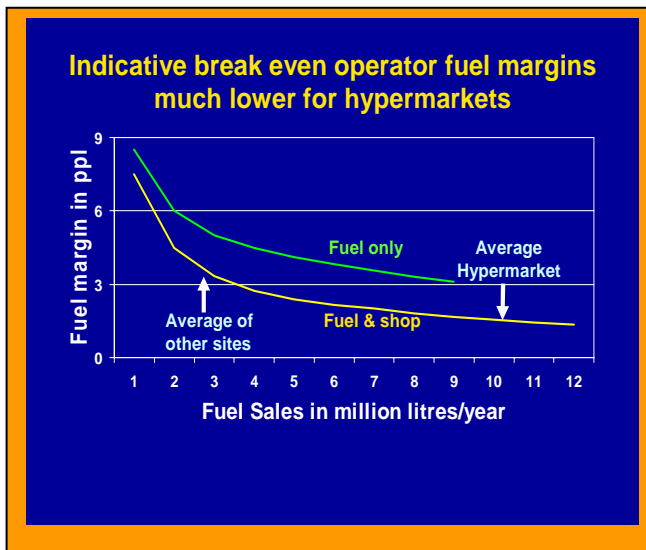
**Table 1: UK price comparisons with urban and rural areas in Scotland and Wales**  
(Source: Catalyst)

Price differentials between areas of dense population and rural locations will, in part, be due to the increased delivery costs associated with supplies to outlying service stations. Given that the volume of fuel sold by service stations in the extreme rural fringe will inevitably be low there is a cost penalty, due to distance from the refinery - or main terminal - and the requirement by low throughput sites to receive more frequent deliveries in less than full loads.

These higher costs along with other overheads such as fixed costs for staff, rent, rates, heat, light, water, maintenance and repair etc. must be factored into the final pence per litre pump price. However, rural sites are not alone in experiencing these economic dynamics. Service stations across the UK, below a viable volume throughput/shop turnover, are closing.

Obviously, the higher the throughput the lower the cost to the consumer will be. Figure 5 below sets out a graph of the pence per litre margin required to breakeven at varying fuel

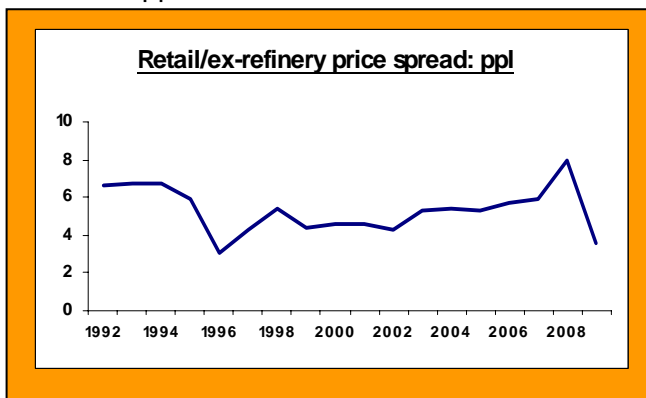
throughputs, based upon a typical site expense level.



**Figure 4: Indicative breakeven margins**  
(Sources: *Catalist, EKW, Coopers & Lybrand study*)

As can be seen, sites at the lower throughput ranges require higher margins per litre on fuel. Even with a reasonable shop turnover of £3,000 per week at about 25% margin, the fuel margin required is still considerable.

The retail/ex-refinery price spread, which has ranged between an average of 4-7 pence per litre (Figure 5) over the last four years, is not the final profit that the retailer makes; it is simply the difference between the cost of the wholesale price of fuel on the open market and the selling price on the forecourt. This has to cover fuel storage and delivery costs, the costs of running the filling station, as well as providing a return for the fuel supplier and retailer.



**Figure 5: Retail/ex-refinery spread, January 1992 - June 2009**  
(Source: *Wood Mackenzie*)

### Other Challenges

The increasing cost of compliance with environmental legislation – UK and EU - is also a challenge for smaller/rural sites. Indeed, changes or updates associated with infrastructure – tanks,

lines, pumps etc. – are often not viable for many sites. Whilst capital expenditure is easier to justify for larger retailers and supermarkets, as they sell enough volume, many smaller retailers struggle to justify the capital expenditure based on projected turnover and profitability levels.

Cost of product, as well as working capital, are also a challenge for the smaller/rural fuel retailer. The volatility of the retail price has a greater impact on retailers that sell lower volumes of fuel. For instance, in a declining market smaller retailers are often left with product bought some time ago at a high price. Whilst higher volume retailers might be able to sell at a lower price, the smaller retailer faces a loss or the possibility of keeping a higher market price with low sale volumes. On the other hand, when prices are higher the small retailer may struggle to finance a load of fuel.

Over the years, a number of studies have looked at the impact of rural filling stations' closures – economic, social and environmental – and at measures that could be implemented to slow the rate of decline of smaller sites. Amongst a number of options that have been examined are: fuel Duty and Vat differentials, above ground tanks/mobile petrol stations, unmanned stations and so on.

At present, rate relief is available to certain village shops and rural filling stations, along with Petrol Vapour Recovery Stage II derogations for existing sites with petrol sales of less than 3 million litres per annum. The Scottish Office also introduced the Rural Petrol Stations Grant Scheme in 1998 (assistance with capital works).

### Conclusions

There are a number of key factors that affect changes in the fuel retail market, such as competition, cost of product and working capital, along with the increasing cost of compliance with environmental legislation. These have particularly impacted smaller/rural filling stations in areas of lower population density. These factors are also reflected on the final pump price, which inevitably varies between areas of dense population and rural locations due to increased associated costs vs lower volumes of fuel sold.

Clearly, the economics of petrol sales alone are insufficient to ensure a sustainable future for rural sites. Also, provision of petrol retailing facilities in remote rural areas must be considered in the wider context of all consumer services to that sector of the population e.g. banking services, groceries, public transport, post office services etc.

In addition, the potential impact of these closures is to be seen in increased emissions associated with added drive-time to re-fuel, alongside the loss of service provisions to local communities.

A recent study by Experian Catalist on '*Road Fuel Supply in the Highlands and Islands*' published in April 2009, looks closely at the impact of rural sites' closures on local communities, with particular regard to less mobile individuals, tourism and increased drive-time.

## **Conclusions**

Intense competition in fuel retailing is the major influence on the viability of rural filling stations. Compliance with environmental legislation and equipment replacement costs can also be a deciding factor in the decision to close individual sites.

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