

THE SCALE OF "FUEL TOURISM" ACROSS THE IRISH BORDER

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INTRODUCTION

Mainly due to differing tax rates, the retail prices of motor fuels in the Republic of Ireland are generally lower than in Northern Ireland. This leads to “fuel tourism”, whereby many Northern Ireland consumers buy fuel in the south. It would be useful to know how much fuel is sold to these cross-border consumers. Fuel sales make an important contribution to tax revenues, and a shift in relative tax rates across the border could lead to significant changes in tax receipts arising from cross-border sales. Also, European climate policy makes each country responsible for the greenhouse gas emissions from fuels sold to retail customers within its borders, regardless of where the fuel is ultimately used or whether the user resides abroad. The level of cross-border fuel sales thus has implications for the policies used to reduce greenhouse gas emissions from transport.

This research estimates the quantity of petrol and diesel fuel sold by forecourt retailers (i.e. petrol stations) in the Republic of Ireland to consumers in Northern Ireland during the 2013-2015 period. Statistical methods are applied to monthly data on fuels sales by individual retailers in the border counties. The key assumption is that petrol stations nearer to the border should enjoy higher cross-border sales than otherwise similar petrol stations that are further away. Analysing the geographical pattern of sales allows us to infer how much fuel is purchased by customers from Northern Ireland.

DATA AND METHODS

Since 2013 Ireland’s Office of the Revenue Commissioners has collected detailed information on monthly sales of petrol and diesel by individual enterprises, including petrol stations. This sales information can be linked to local information

¹ This Bulletin summarises the findings from: Kennedy, S., S. Lyons, E.L.W. Morgenroth, K. Walsh, 2018, Assessing the Level of Cross-Border Fuel Tourism, *Irish Journal of Social, Economic and Environmental Sustainability* 1 (2), 4-22. Available online: http://ijsees.ie/s/IJSEE_Volume_1_2.pdf The views expressed in this paper are strictly those of the authors. They do not necessarily reflect the views of the Office of the Revenue Commissioners.

² Office of the Revenue Commissioners and Irish Government Economic and Evaluation Service (“IGEES”).

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on population density, number of competitors and other market characteristics, but importantly also to the distance from each petrol station to the border with Northern Ireland.

Using statistical methods we estimate how much each factor contributed to a given petrol station's sales of petrol and diesel fuels. These results are then used to simulate how much petrol stations near the border would have sold if the border effect did not exist (or if the station was the same in all respects apart from being located far from the border). The difference between the predicted sales with and without the border effect provides an estimate of the sales from fuel tourism.

RESULTS

As expected, petrol stations near the border sell more petrol and diesel than would be expected given their characteristics. Other factors affect sales as expected; for example, fuel sales are higher for stations with more people living nearby, near a major road or with few competitors in their vicinity.

The set of stations near the border sells an average of 54% more diesel and 15% more petrol than equivalent stations far from the border, taking their other characteristics into account. This implies that fuel tourism contributed tax receipts of about €28 million from petrol and €202 million from diesel at 2015 rates, taking VAT into account along with excise and carbon taxes. Greater levels of fuel tourism for diesel may partly be attributable to heavy goods and other vehicles which avail of cheaper prices near the border before making long distance journeys on to the Continent.

Fuel tourism generated about 1.17 million tonnes of CO₂ emissions in 2015, or just under 2% of Ireland's total greenhouse gas emissions that year.

POLICY IMPLICATIONS

The extent of Ireland's fuel tourism estimated in this paper is lower than most previous estimates made using other methods. We estimate that 13% of diesel sales were to cross-border consumers during 2013-15, compared to estimates of 15-25% in previous studies. Our estimated cross-border share of petrol sales is 2.4%, compared to their range of 5-18%. Exchange rate changes since 2016 have led to a further narrowing of price differentials. Nevertheless, the scale of cross-border activity is significant in terms of the tax revenue associated with it and the share of Ireland's national greenhouse gas emissions it represents.

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