The Oil Market in Ireland – An Update 2017

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The Oil Market in Ireland – An Update 2017

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Executive Summary

In 2016, €2.9 billion in Excise Duties, VAT and Carbon Tax on oils were paid to the Exchequer. Transport fuels, petrol and auto-diesel in particular, remain consistently important sources of tax receipts.

This paper presents an update on trends in receipts and clearances in oils in recent years as well as reviewing a number of compliance outcomes in relation to fuels.

Diesel clearances have recovered from the recession and are continuing to grow quickly, indicating increased consumption as transport demand (personal, commuters and hauliers) grows. A consistent pattern over recent years is the reduction in petrol consumption, largely from drivers switching from petrol to diesel. Despite the varied changes, combined tax and duty receipts from oils are relatively stable at just under €3 billion per annum since 2011.

Following concerns about the laundering of diesel and other compliance risks, since 2011 Revenue's strategy in the oil market has included the tightening of the fuel licensing regime, introduction of a supply chain reporting and monitoring system, introduction of a reckless trading provision, the strengthening of Revenue powers to refuse or revoke licences and, in April 2015, the introduction of a new fuel marker (Accutrace) jointly with the UK. All of the above is backed up by robust enforcement action.

In terms of compliance outcomes, seizures of oil, closures of stations and convictions for the most part show peaks around 2012 and 2013. As Revenue's efforts have not diminished in the years since, the reductions probably reflect improvements in underlying compliance behaviour.

Almost no laundries have been discovered in the Republic since 2014, verified through continuing high levels of enforcement. Nationwide random sampling programmes in 2016 and 2017 show the near elimination of selling of laundered product at retail level.

Analysis suggests an uplift in tax receipts from diesel of up to €35 million in 2016 from greater compliance, controlling for other factors (including underlying growth in demand).

All of the evidence indicates that Revenue's comprehensive strategy to address the illegal trade in oils is working and continuing to yield benefits to the Irish Exchequer and to compliant businesses through the reduction in unfair competition.

1 Introduction

In 2016, €2.9 billion in Excise Duties, VAT and Carbon Tax on oils were paid to the Exchequer. Transport fuels, petrol and auto-diesel in particular, have remained consistently important sources of tax receipts throughout the economic downturn and in the recovery.

In recent years, and particularly since 2011, Revenue's strategy in the oil market has included the tightening of the fuel licensing regime, introduction of a supply chain reporting and monitoring system, introduction of a reckless trading provision, the strengthening of Revenue powers to refuse or revoke licences and, in April 2015, the introduction of a new fuel marker (Accutrace S10™) jointly with the UK. All of the above was backed up by robust enforcement action.

The oil market has been subject to significant analysis. Revenue published a research report on trends in the market from 2013 to 2014 that shows the early positive impacts of Revenue's recent compliance measures.[1] A random sampling programme on nearly one in ten fuel traders was conducted in 2016 and found no traces of laundering (an updated sampling programme is reported in this paper).[2] The Comptroller & Auditor General examined Revenue's strategies to tackle laundering in 2016.[3]

This paper presents an update on trends in receipts and clearances in oils since the 2014 analysis as well as reviewing a number of compliance outcomes in relation to fuels.

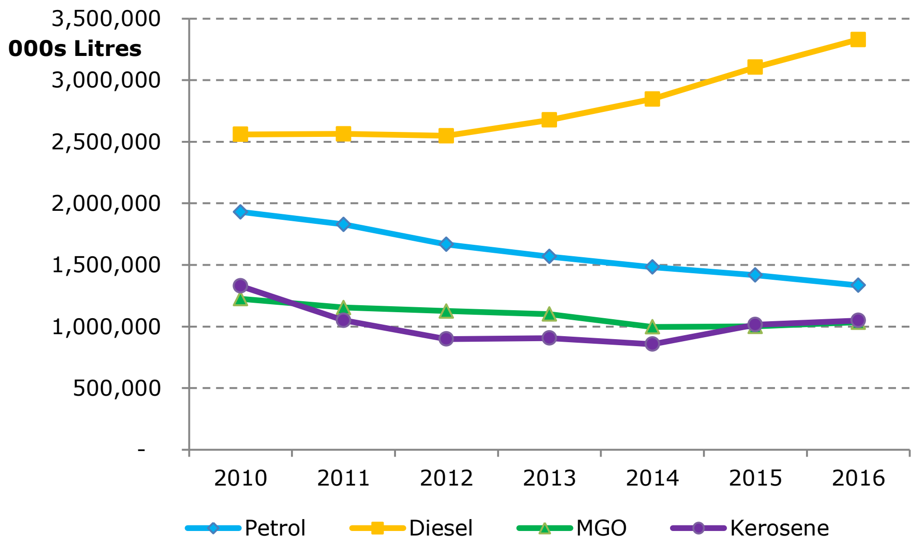
[1] http://www.revenue.ie/en/about/publications/oil-market-analysis.pdf (December 2014).
[2] http://www.revenue.ie/en/about/publications/national-random-sampling-programme.pdf (February 2016).
[3] http://www.audgen.gov.ie/documents/annualreports/2015/report/en/Chapter12.pdf (September 2016).

2 Oil Market Trends

2.1 Clearances

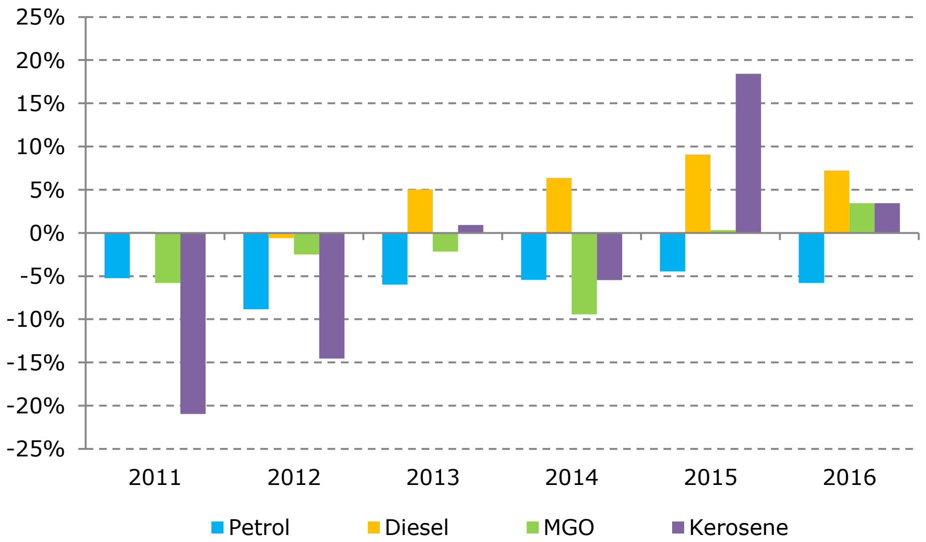
Figure 1 shows oil clearances (the duty paid amounts of oil removed from tax warehouses) since 2010 for the main fuel categories: petrol (and some other light oils), diesel, kerosene and marked gas oil (MGO).[4] Figure 2 shows their growth rates.

Figure 1 – Volumes of Oil Clearances



Source: Revenue data. Notes: 2016 data are provisional; smaller fuel categories not included.

Figure 2 – Year-on-Year Growth Rates of Clearances



Source: Revenue data. Notes: 2016 data are provisional; smaller fuel categories not included.

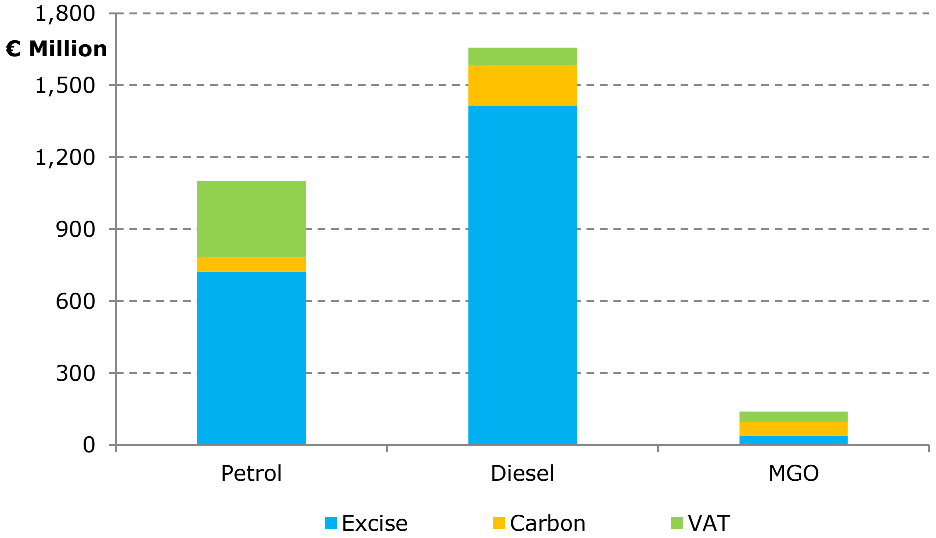
[4] MGO, intended for use in agriculture, construction or certain non-road activities, sometimes referred to as green diesel (after the green dye added), now includes a fiscal marker (Accutrace) that is resistant to laundering.

Several trends are clear from the above figures. Diesel clearances have recovered from the recession and are continuing to grow quickly, indicating increased consumption as transport demand (personal, commuters and hauliers) grows. Together with growth in diesel demand, a consistent pattern over recent years is the reduction in petrol consumption. It appears the switch from petrol to diesel cars is of greater impact on clearances of petrol than increased demand arising from the recovering economy. The last two years have also seen growth in MGO and kerosene, albeit from smaller bases.

2.2 Receipts

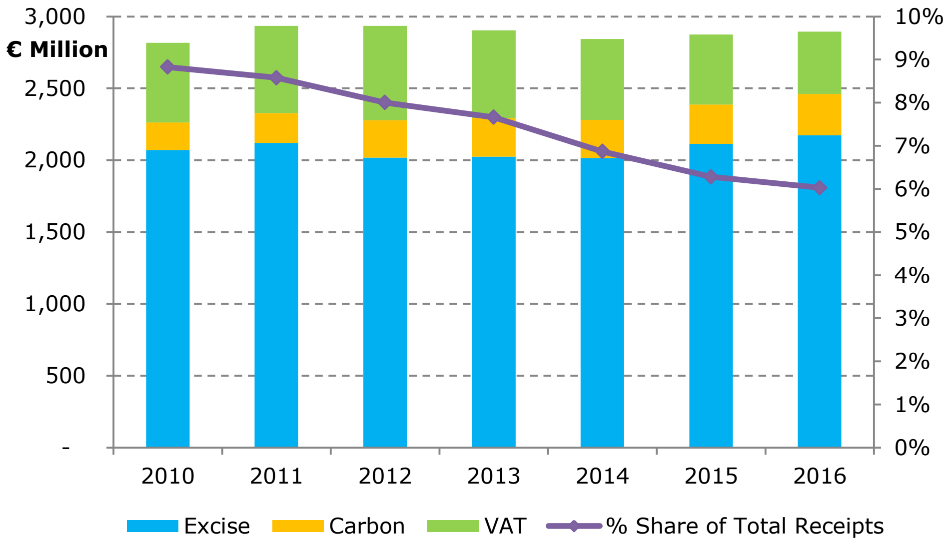
Figure 3 shows Excise (Mineral Oil Tax), Carbon Duty and VAT receipts from petrol, diesel and MGO in 2016. Diesel and petrol account for most of the receipts, MGO receipts are lower due to the reduced tax rates applicable. Figure 4 shows these receipts over the period since 2010 and the share of oils receipts in total tax receipts paid over to the Exchequer. Combined Excise and VAT receipts from oils are relatively stable at just under €3 billion per annum over the period. Given increases in overall receipts in recent years, the share of oils in total receipts has reduced. As noted in Section 2.1, the stability of oil receipts disguises significant variations between petrol and diesel.

Figure 3 – Receipts from Oils by Tax or Duty 2016



Source: Revenue data. Note: 2016 data are provisional; smaller fuel categories not included.

Figure 4 – Receipts from Oils

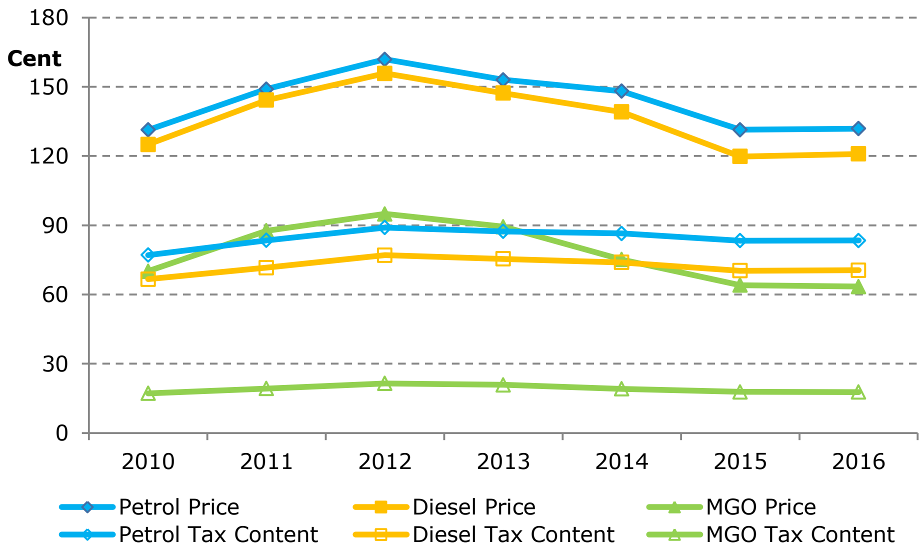


Source: Revenue data. Note: 2016 data are provisional; smaller fuel categories not included.

2.3 Prices and Incidence

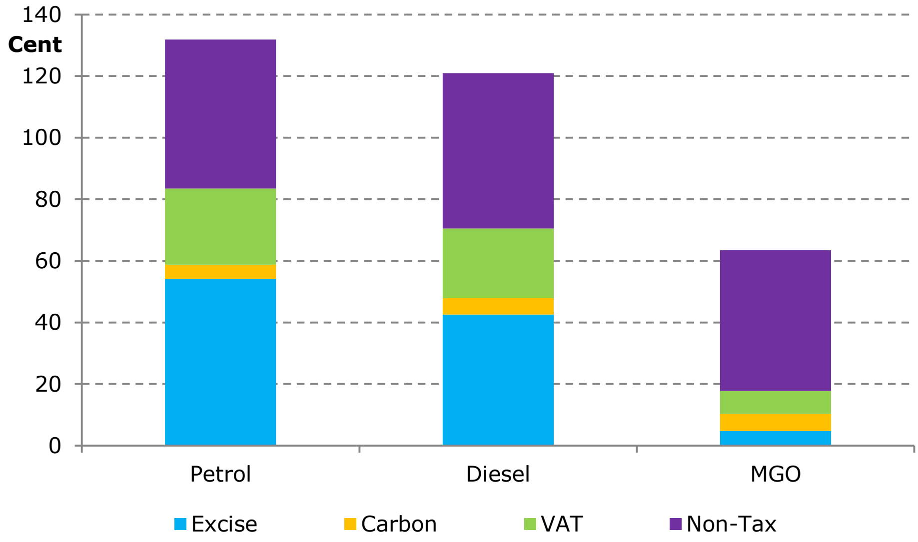
Figure 5 shows average prices of petrol, diesel and MGO since 2010, and the tax content of these. As Figure 6 indicates, the tax on fuel is a combination of Excise, Carbon Duty and VAT and these taxes are a mix of ad valorem and specific charges. While prices have fallen since peaks of 2012, this is driven by changes in oil prices and other non-tax elements for the most part.

Figure 5 – Average Prices and Tax Content



Source: Revenue analysis based on various sources. Note: 2016 data are provisional.

Figure 6 – Incidence of Taxation 2016



Source: Revenue analysis based on various sources.

2.4 Fuel Tourism

Due to differences in exchange rates, tax rates and other reasons, petrol and diesel prices are consistently cheaper in Ireland compared to Northern Ireland.[5] With the open border and longstanding links between the two jurisdictions, there is a history of cross border shopping for fuel by Northern Irish residents in Ireland.

Recent joint research between Revenue and the Economic & Social Research Institute (ESRI) estimates the scale of fuel tourism.[6] The combined Excise, Carbon Tax and VAT contribution to the Irish Exchequer associated with fuel tourism is estimated at €202 million for diesel and €28 million for petrol based on 2015 figures as shown in Table 1. These equate to approximately 13 per cent of national diesel sales and 3 per cent of national petrol sales.

Table 1 – Fuel Tourism Estimates 2015

	Diesel	Petrol
Fuel Tourism (Kilolitres)	407,686	33,697
Excise (€)	171,646,999	18,282,530
Carbon (€)	20,759,647	1,482,604
VAT (€)	9,661,822	8,663,133
Total Tax (€)	**202,068,468**	**28,428,266**

Source: Revenue and ESRI analysis.

[5] Revenue's cross border surveys document these differences back to 2007: http://www.revenue.ie/en/about/publications/cross-border-surveys/index.html.
[6] https://mpra.ub.uni-muenchen.de/76961/1/MPRA_paper_76961.pdf (February 2017).

3 Compliance Outcomes

Following concerns about the laundering of diesel[7] and other compliance risks in the oil market, since 2011 Revenue has implemented a comprehensive strategy to address the illegal trade in mineral oils.[8] This strategy is backed up robust enforcement actions. These initiatives are summarised in the Introduction and further documented in the links therein. This Section reviews the compliance outcomes in the market that have followed from Revenue activities in recent years.

3.1 Seizures and Convictions

Revenue's strategy for mineral oils and the interventions that follow have outcomes that can be seen across multiple areas. The most direct outputs from these programmes are where actions lead to seizures of oil, closures of stations and convictions. The numbers of these are shown in Table 2.

Table 2 – Oil Related Seizures and Convictions

	2010	2011	2012	2013	2014	2015	2016
Illicit Mineral Oil seizures (number)	44	88	86	67	32	47	42
Illicit Mineral Oil seizures (000s litres)	289	718	914	771	151	215	371
Filling stations shut down	-	32	57	30	15	15	9
Oil laundries (number)	4	9	11	9	2	0	1
Oil laundries (000s litres)	n/a	327	199	570	50	-	28
Summary Criminal Convictions	223	224	211	228	283	310	185

Source: Revenue data. Note: Summary criminal convictions includes commercial oil and marked mineral oil.

The trends shown in Table 2 vary, as would be expected given the nature of the activities, but for the most part they show peaks around 2012 and 2013. This is consistent with these being the initial years following the new mineral oils strategy and new initiatives being introduced. As Revenue's efforts have not diminished in the years since, the reductions seen in some measures probably reflect improvements in underlying compliance behaviour.

3.2 Receipts and Budget 2016 Measures

As shown in Section 2.2, tax and duty receipts from fuels have been relatively stable in recent years but this masks significant changes in underlying factors. In addition to changes in demand for different fuels, another factor leading to higher receipts is likely to be greater levels of compliant behaviour.

[7] Laundering involves the removal of the green dye from MGO but Accutrace is resistant to conventional dye-washing laundering methods.
[8] Revenue's Strategy For Combating the Illegal Trade in Mineral Oils (2011-2013) is published at: www.revenue.ie/en/tax/excise/mineral-oil-traders/mineral-oil-strategy.pdf.

As previously noted, a new marker (Accutrace) to prevent laundering of MGO was introduced in April 2015. This initiative was complemented with new and extended compliance interventions in targeted areas. With the new marker and the availability of enhanced data sources, Revenue committed as part of Budget 2016 that improved compliance in the sector would deliver additional taxes and duties of €10 million in 2016. Analysis of 2016 data suggests that this target has been exceeded.

Diesel clearances (volumes) rose 7 per cent in 2016 (compared to 2015), associated Excise receipts were €106 million (8 per cent) higher year on year. It is not possible to say conclusively what share of this increase may be due to Revenue's compliance initiatives. But there are reasonable grounds to assume these initiatives underpin the increase.

The increase in diesel clearances in 2016 is approximately 225 million litres. A portion of this likely reflects growth in underlying activity that has increased demand for diesel. Central Statistics Office (CSO) retail sales index figures show a 2 per cent increase in the sale of automotive fuel in volume terms (the index shows a decrease in value terms). This would equate to around 62 million litres in diesel compared to 2015 levels.

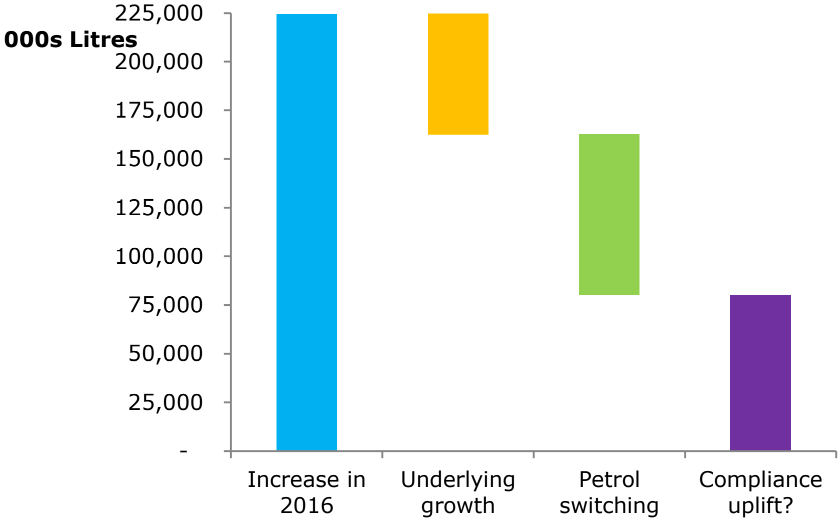
This suggested underlying growth of 2 per cent is supported by the fact that clearances of MGO show a similar increase in 2016. As shown in earlier Revenue research (referenced in Section 1), MGO clearances fluctuated significantly in the years around the introduction of the Return of Oil Movements system[9] and the new marker. Analysis suggests this may have been in part driven by diversion of product for laundering, which is now closed off due to Revenue's closer monitoring of the supply chain and other successes. MGO clearances increased by 3 per cent in 2016, after being stable in 2015, this suggests legitimate growth in demand is driving the increase.

A second factor behind the increase in diesel clearances is the ongoing switch in driver preferences from petrol to diesel. Petrol clearances were 82 million litres lower in 2016 compared to 2015. A conservative assumption (due to fuel efficiency differences) would be to assume that this translated to a one-to-one increase in diesel clearances.

As summarised in Figure 7, this leaves an increase of around 80 million litres of diesel that may reflect an uplift from Revenue compliance activities. This amount represents an additional yield to the Exchequer of around €35 million in Excise and other taxes. It is important to note that this is based on analysis of 2016 data, as similar trends appear in earlier years it is likely that additional yield arose in those years too.

[9] Known as the ROM1, these returns track the supply chain of oil from warehouse release to sale.

Figure 7 – Estimated Components of Diesel Clearance Growth (2016)



Source: Revenue analysis.

The analysis above is simplistic, it takes no detailed account of behavioural changes or other elasticity effects, but it is reasonable to assume a substantial proportion of the increase in diesel clearances is likely due to the continued successful implementation of Revenue's compliance strategy in oils. Despite the caveats, the Revenue compliance initiatives, at the very least, coincided with these significant changes in the oil market and a causal relationship is likely. Even if only a portion of the €35 million uplift is directly linked to Revenue activities, it would still exceed the €10 million target in Budget 2016.

3.3 Random Sampling and Retail Outlets

Illicit activities are, by their very nature, difficult to observe. Revenue cannot simply measure the level of laundering and illegal trade in the oil market. However, random sampling offers a snapshot view that can be extrapolated out.

In January 2016, Revenue conducted a national random sampling programme with a view to quantifying the extent to which illicit fuel (i.e., laundered road diesel) is evidenced among licensed fuel outlets. The programme entails taking samples of road diesel from a randomly selected group of Auto Fuel Trader Licence holders (mostly forecourt retailers and fuel distributors) and testing each for the presence of the marker (Accutrace).

The results of the January 2016 sampling exercise found no evidence of Accutrace in any of the traders' samples. In January 2017, Revenue repeated the exercise with another randomly selected sample of licenced fuel outlets. The results again found no evidence of Accutrace in any of the traders' samples.

The results from 2016 and 2017 programmes are summarised in Table 3. The methodology and results of the January 2016 sampling programme are fully documented in a report on the Revenue website.[10] The January 2017 programme followed the same methodology exactly and a summary is shown in the Appendix.

Table 3 – Random Sampling Programmes

	Traders Tested 2016	Evidence of Accutrace 2016	Traders Tested 2017	Evidence of Accutrace 2017
Border, Midlands & West	75	0%	85	0%
Dublin	17	0%	18	0%
East & South East	58	0%	68	0%
South West	47	0%	41	0%
Total	**197**	**0%**	**212**	**0%**

Source: Revenue analysis.

These random sampling exercises, conducted on a national level over a short time period, provide a powerful and robust measurement of the scale of the selling of laundered fuel in the State. The samples, nearly one in ten traders each year, are significantly larger than required to provide robust statistical results that can be extrapolated to the full population.

The findings represent a further, authoritative confirmation of the effectiveness of the various measures introduced by Revenue in recent years to enhance compliance in the fuel trade. While the results of the random sampling programmes do not signify the complete elimination of the illicit trade in fuel, they do demonstrate that systematic selling of laundered fuel through retail outlets is negligible and close to being fully eliminated.

[10] See http://www.revenue.ie/en/about/publications/national-random-sampling-programme.pdf.

4 Conclusion

Revenue's strategy for the illegal trade in mineral oils has closed off the options for non-compliance. Increased cooperation with the UK HMRC (including the joint introduction of the new marker) reduces opportunities for cross border illicit supply. Leakage from the legitimate supply chain of product for laundering is now identified through the ROM1 system. Strengthened provisions and powers mean greater penalties for those that do engage in illicit activities.

Almost no laundries have been discovered in the Republic since 2014, verified through continuing high levels of enforcement. The sampling programmes in 2016 and 2017 show the near elimination of selling of laundered product at retail level. Analysis suggests a compliance uplift in tax receipts from diesel of up to €35 million per annum in 2016.

All of the evidence indicates that Revenue's comprehensive strategy to address the illegal trade in oils is working and continuing to yield benefits to the Irish Exchequer and to compliant businesses through the reduction in unfair competition.

Appendix – Random Sampling Programme 2017

Sampling

Any trader that produces, sells, deals in, or keeps for sale or delivery road diesel is legally obliged to hold an Auto Fuel Trader Licence (AFTL). The total population of AFTL holders at the outset of the programme (i.e., those holding a valid licence) was 2,567. Of these, 230 were selected for sampling (9 per cent of the overall population). A breakdown of the sample population is outlined in Table A1 based on Revenue operational Region. Selection was based on a random-selection algorithm and there was no post-selection refinement of the sample.

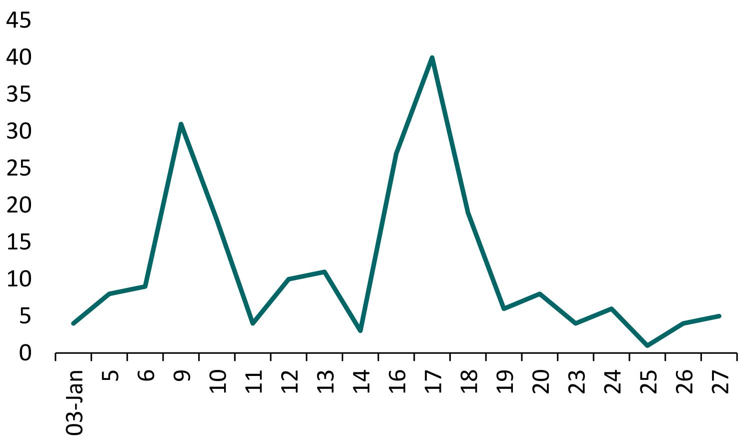
Table A1 – Auto Fuel Trader License Sample and Population

Revenue Region	AFTL Population	% AFTL Population	AFTL Random Sample	% AFTL Random Sample
Border, Midlands & West	995	39%	93	40%
Dublin	497	19%	44	19%
East & South East	384	15%	34	15%
South West	691	27%	59	26%
Total	**2,567**	**100%**	**230**	**100%**

Source: Revenue Analysis.

Revenue enforcement teams tested for the presence of the marker, Accutrace S10™ by taking samples of auto diesel in the storage tanks of the randomly selected traders. Nearly all sampling took place in January 2017 (a small number of cases were sampled in February). Figure A1 shows the timing of the sampling in more detail.

Figure A1 – Date of Sampling



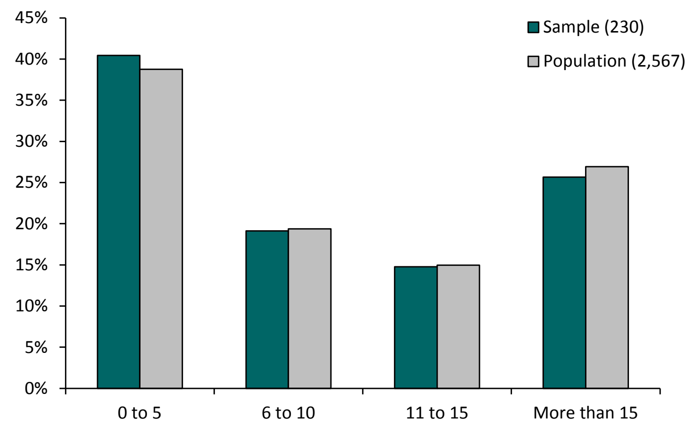
Source: Revenue Analysis.

Representativeness

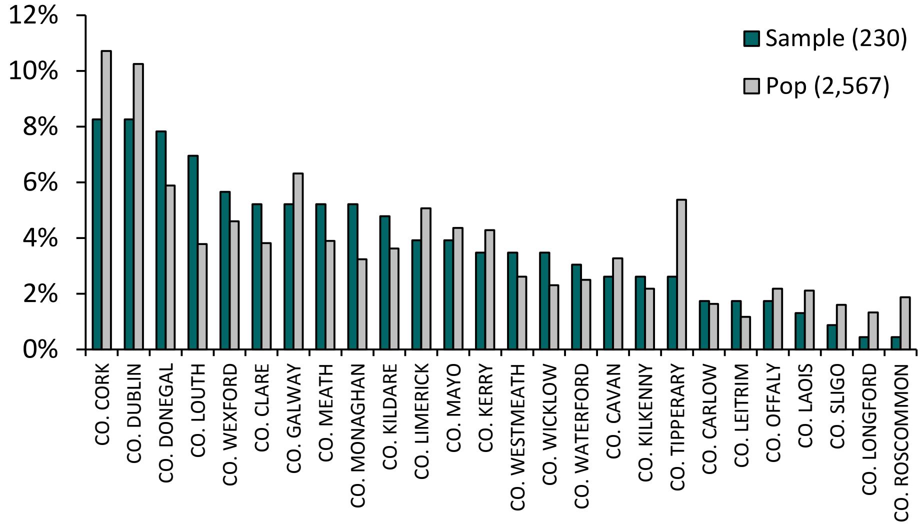
The purpose of randomly sampling a large number of traders is to ensure representativeness of all national fuel traders in the sample. There are a number of ways to test representativeness, including by comparing distributions of selected characteristics in the sample and the population. For the purpose of this exercise, geographical location (Revenue Regions and Districts) and the number of years the trader is in operation are examined, as shown in Figure A2. On the basis of these distributional comparisons, the results show a close match, which provides confidence that the sample is likely to be representative of all AFTL holders in Ireland.

Figure A2 – Sample Representativeness

A. Years in Operation



B. Geographic Breakdown



Source: Revenue Analysis.

Results

Of the random sample of 230, 18 cases were unavailable for testing for a number of reasons, including the trader not being involved in selling road diesel or having gone out of business. This results in an effective sample of 212. On this basis, the margin of error around the sample results is 5.4 per cent.[11] No evidence of Accutrace was found in any of the 212 traders sampled.

Table A2 – Results

Revenue Region	Random Sample	Unavailable for Test	Tested	Evidence of Accutrace S10™
Border, Midlands & West	93	8	85	0%
Dublin	19	1	18	0%
East & South East	71	3	68	0%
South West	47	6	41	0%
Total	**230**	**18**	**212**	**0%**

Source: Revenue Analysis.

Discussion

Following the previous 2016 random sampling programme, which also found no evidence of Accutrace in any sample cases, the 2017 findings represent a further, authoritative confirmation of the effectiveness of the various measures introduced by Revenue in recent years to enhance compliance in the fuel trade.

It is fully recognised by Revenue that while the results of the random sampling programme do not signify the complete elimination of the illicit trade in fuel, they do demonstrate that the retail selling of laundered fuel is negligible and close to being fully eliminated. This conclusion is supported by previous research and trends discussed in the main body of this report.

[11] Margin of error based on sample of 212 and a population of 2,567, is 5.4%.