I.P.I.A.

Irish Petroleum
Industry Association

Sector Profile

February 2019

Contents

The Irish Petroleum Industry Association – IPIA – is the representative body of those companies in Ireland engaged in the importation, distribution and marketing of petroleum products. Its membership represents about 95% of the oil industry in the Republic of Ireland.

The IPIA promotes the interests and represents the views of the oil industry – particularly with regard to environmental, health and safety issues. The IPIA is recognised by Government as the representative body for the industry. The IPIA promotes the understanding by the public of the oil industry's contribution to economic, technological and social progress. The functions of the IPIA do not extend to any matters relating to the terms and conditions of sale of product.

The IPIA works alongside other European petroleum interests through FuelsEurope.

IPIA members are Applegreen, East Cork Oil, Emo, Inver, Irving Oil, LCC, Maxol, TOP, Circle K and Valero.

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Ireland's relationship with petroleum products is changing. That is obvious, irreversible and entirely necessary.

The IPIA, as the representative body of those companies in Ireland engaged in the importation, distribution and marketing of petroleum products, is determined to play our part in Ireland's transition to a low carbon, climate resilient and environmentally sustainable economy by 2050 – as targeted in the Government's National Mitigation Plan.

Successful transition requires a clear understanding of not only the destination but also the point of departure. To that end, IPIA has produced this sectoral review to inform debate on Ireland's current reliance on petroleum products for transport, heating and industry.

Petroleum products are still a key driver of Ireland's economy and our dependence on them is greater than in most European countries with 50% of our total energy consumption coming from oil. The absence of nuclear power from the Irish energy mix is a significant contributory factor, but demographic and infrastructural issues also have a major impact. 40% of Irish homes, for example, use oil for heating and for many (particularly in rural Ireland) it is the only realistic option. The current housing shortage causes many to live further from their workplace than they would prefer, and the lack of public transport options leads to heavy reliance on private cars.

Tax accounts for 56.5% of the pump price of diesel and 61.3% for petrol. The total tax take from oil products was just under **€3 billion** in 2017 – **6% of Ireland's total tax revenue**.

The addition of biofuels to petrol and diesel is one of the measures through which suppliers of petroleum products reduce carbon and GHG emissions. 5.2% of gasoline sold in Ireland is actually biofuel (up from 1.7 in 2010) and 4.7% of diesel (2.6% in 2010). These levels are expected to continue increasing. IPIA members continue to invest heavily in charging networks for electric vehicles to support zero carbon transport options.

IPIA members will continue to fuel Irish transport, heating and industry. We will continue to provide direct and indirect employment for thousands of workers. We will continue to collect billions of euro to fund government services and we will do all this while contributing to Ireland's evolution to a low carbon, climate resilient and environmentally sustainable economy.

Kevin McPartlan
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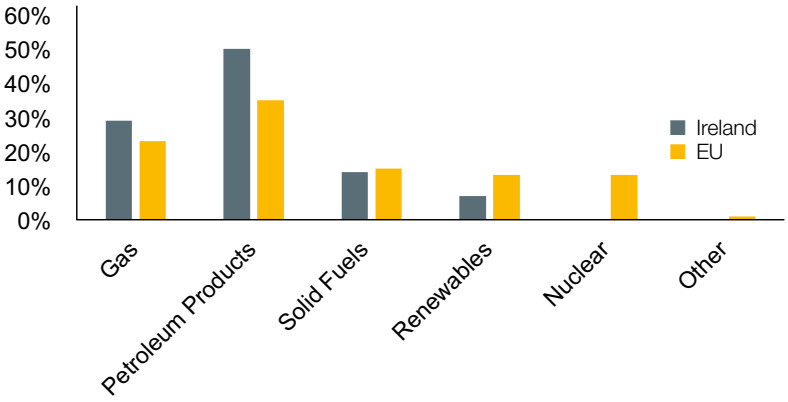
Energy Consumption by Fuel

In terms of the types of energy products consumed, Ireland has one of the highest dependencies on oil in the EU. Oil accounts for 50% of total energy consumption (including transformation) and 58% of final energy demand (excluding transformation). Only four EU countries have a higher share than Ireland (Cyprus, Malta, Luxembourg and Greece). Oil accounts for 35% of total energy consumption (including transformation) across the EU and 38% in the UK. Ireland is more dependent on oil because other countries rely on nuclear (13% of EU). Renewables also account for a larger share across the EU (13% in EU v 7.5% in Ireland). Renewable energy includes non-combustible (e.g. hydropower, wind and solar energy) and combustible renewables (e.g. biofuels).

Figure 1: Share of Gross Inland Energy Consumption

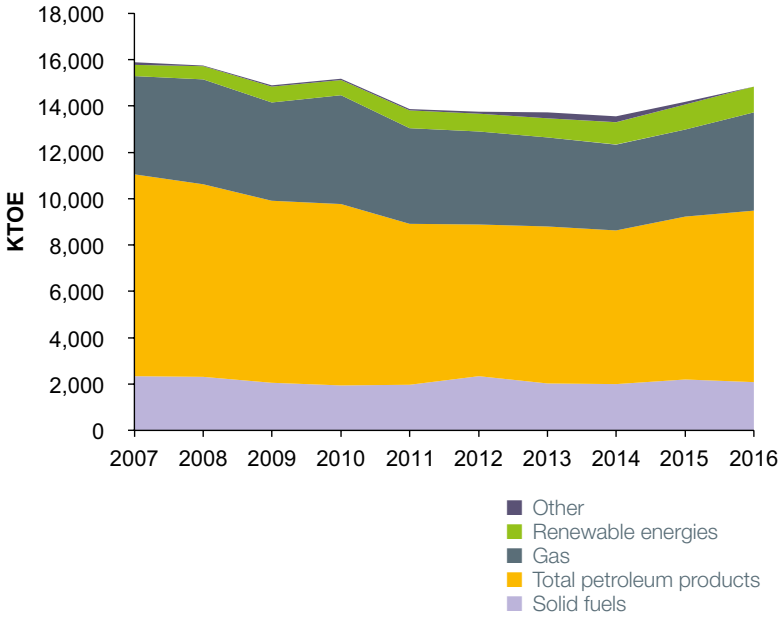


Source: Eurostat

Demand Over Time by Fuel Type

Total energy consumption tends to correlate with growth in the overall economy. This was seen when total energy consumption fell by 13% from 2007 to 2013. It has increased since, but in 2016 total gross inland energy consumption (which includes transformation) remained 6.5% lower than 2007 levels. Consumption of some fuels increased while consumption of other fuels fell. Most of the reduction in energy consumption was driven by petroleum products which are still 15% lower than in 2007. Consumption of solid fuels also fell but these products account for a much smaller proportion of total energy. Gas experienced no change and quantities consumed are roughly the same as 2007. By contrast, consumption of renewables has more than doubled since 2007 and now account for 7.5% of total energy consumption, up from 3% in 2007.

Figure 2: Gross Inland Energy Consumption Ireland

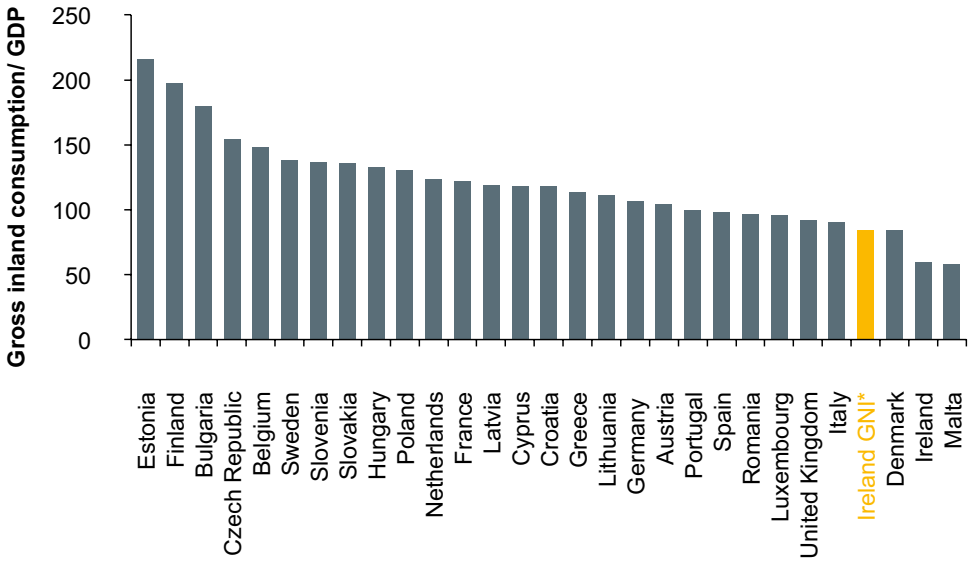


Source: Eurostat

Energy Intensity

Energy intensity is the ratio between gross inland consumption of energy and GDP. It can be used to estimate a country's energy efficiency as it shows how much energy is needed to produce one unit of economic output. There are a number of reasons why this varies across countries. For example, a country with a large services sector will be more energy efficient than one with a large manufacturing sector. It could also be the case that one country uses more energy efficient processes. Ireland has the second lowest energy intensity in the EU. However, Ireland's GDP numbers are heavily inflated by multinational activities such as importing IP and may depict a misleading picture. However, when taken as a proportion of Gross National Income (which corrects for these distortions) Ireland still has the third lowest energy intensity in the EU.

Figure 3: Energy Intensity

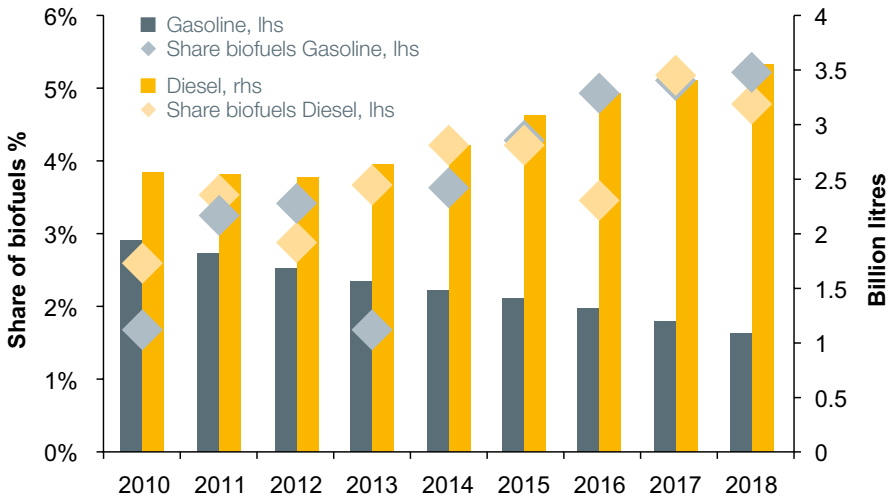


Source: Eurostat

Diesel and Gasoline Volumes

Last year, total diesel and gasoline volumes increased by 0.8%. This consisted of a reduction in the quantity of gasoline consumed (-9%), while diesel consumption increased by 4%. Overall gasoline and diesel consumption was 11% higher in 2018 than in 2011 with diesel volumes up 42% and petrol down 34%. Biofuels also account for a greater share of both petrol and diesel volumes. In 2018, biofuels accounted for 5.2% of gasoline sold (up from 1.7% in 2010) and biofuels accounted for 4.7% of diesel volumes (up from 2.6% in 2010).

Figure 4: Diesel and Gasoline Volumes

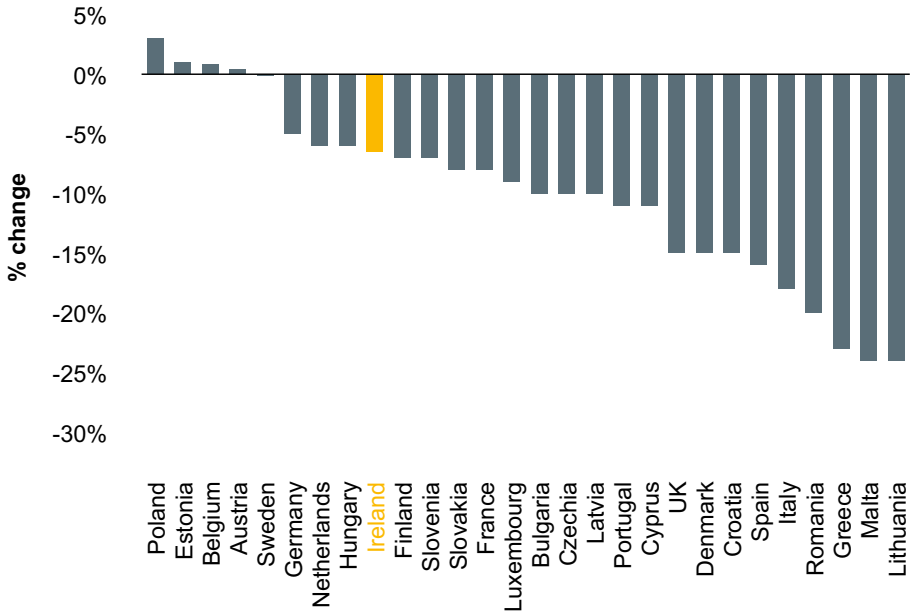


Source: NORA

EU Energy Consumption 2016 v 2007

The fall in energy consumption in Ireland has been a consistent trend across the EU. In 2016, total energy consumption across the EU was 9.4% lower than in 2007(compared to 6.5% in Ireland). From 2007-2014 Ireland experienced a larger reduction in consumption (-14.6% in Ireland v -11.1% in EU), however, from 2014-2016, Ireland has experienced a stronger recovery (growth of 9.5% v 2%). The fall since 2007 across the EU was largely driven by solid fuels (-27%), petroleum products (-14%), gas (-12%) and nuclear (-10%). Renewables grew by 56% and now account for 13% of total EU consumption.

Figure 5: Gross Inland Energy Consumption 2016 v 2007

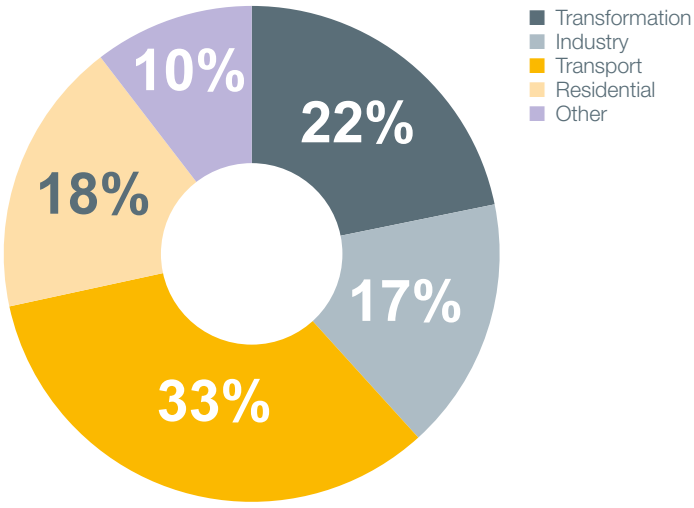


Source: Eurostat

Energy Use by Sector in Ireland

Figure 6 provides a breakdown of energy use by sector. Transport is the largest user of energy, accounting for one-third of all energy consumption. Road is the biggest contributor to this as it accounts for 26% of total energy consumption. The next largest is transformation which is energy used when converting primary sources into forms that can be used by the final consumer e.g. oil refining. The majority of energy used in transformation is accounted for by conventional thermal power stations. Industry accounts for 17% of energy consumption and the largest consumers within industry are non-ferrous metals (20%), food (19%) and non-metallic minerals (17%).

Figure 6: Energy Use in Ireland

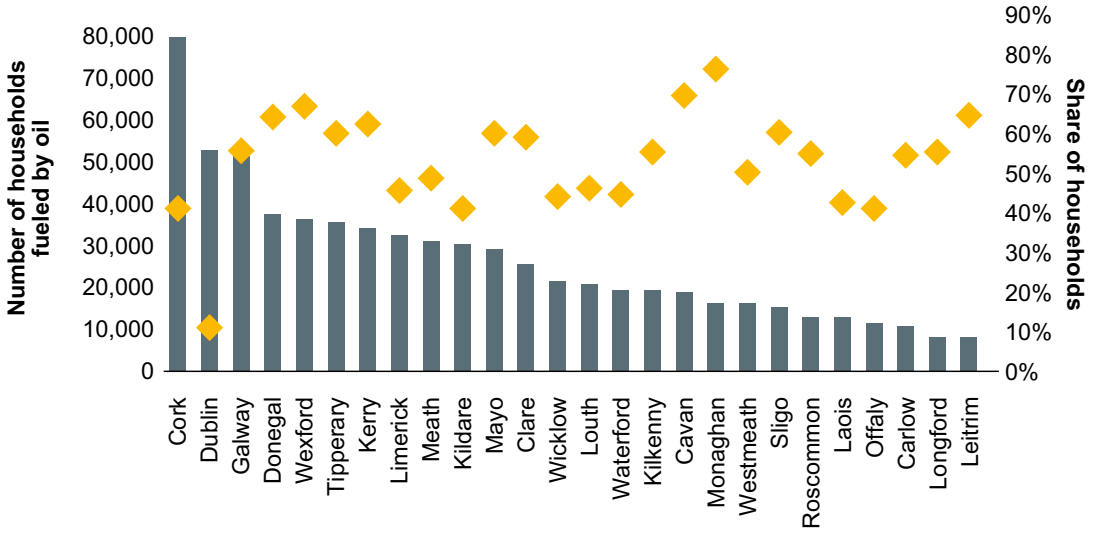


Source: Eurostat

Home Heating

In 2016, 40% of households in Ireland relied on oil to heat their homes, down from 43% in 2011. This share varied significantly by region, with rural areas more reliant. Roughly 26% of households located in towns relied on oil for central heating compared to 65% in rural areas. The counties with the highest share of households using oil for central heating were Monaghan (76%) and Cavan (70%). Only 11% of households in Dublin relied on it, the next lowest was Cork (41%). From 2011 to 2016, the share of homes fuelled by oil fell in every county ranging from 1 percentage point to 6 percentage points. Offaly saw the largest drop (-6 pp) as the share of homes fuelled by oil fell from 47% to 41%. The smallest reductions were in counties which already had a low share of houses fuelled by oil (Cork and Dublin).

Figure 7: Oil-fuelled Central Heating

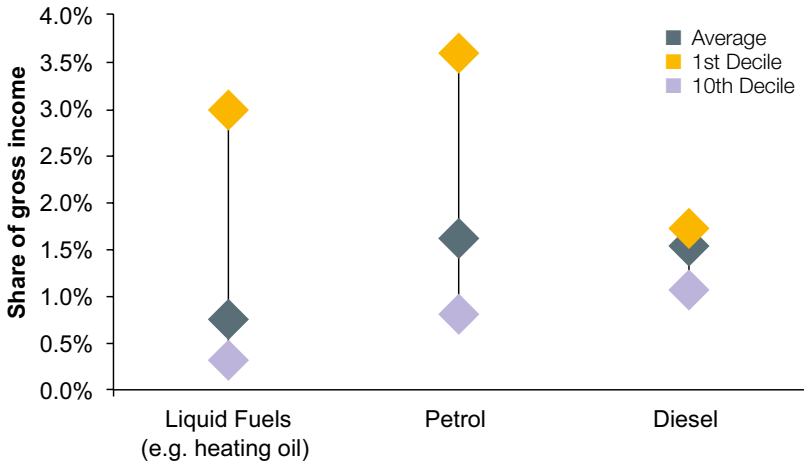


Source: CSO

Fuel Consumption by Income

Taxes on fuel products tend to be regressive as poorer households spend a larger proportion of their income on these products. The poorest 10% of households in Ireland spend 3% of their gross income on heating oils compared to 0.3% for the richest households. The same is true for petrol and diesel. The poorest households spend 3.6% of income on petrol and 1.7% on diesel. While the richest spend 0.8% and 1.1% of gross income on these products.

Figure 8: Spending on Fuels by Income



Source: CSO

Irish Petroleum Industry Association

At a glance

13,081

people employed in filling stations in 2016 – **up 14.7% since 2010**

Source: CSO

50%

of all energy consumption in Ireland against 35% across EU **Major reason – no nuclear power in Ireland**

Source: Eurostat

€600m VAT

€337m Carbon Tax

€2bn Excise

Tax revenue

€3bn in 2018

€2bn Excise
€337m Carbon Tax
€600m VAT
This accounts for **6% of total tax revenue**

Source: Revenue

Ireland has the second lowest energy intensity in the EU

– energy intensity is the ratio between gross inland consumption of energy and GDP

Source: Eurostat

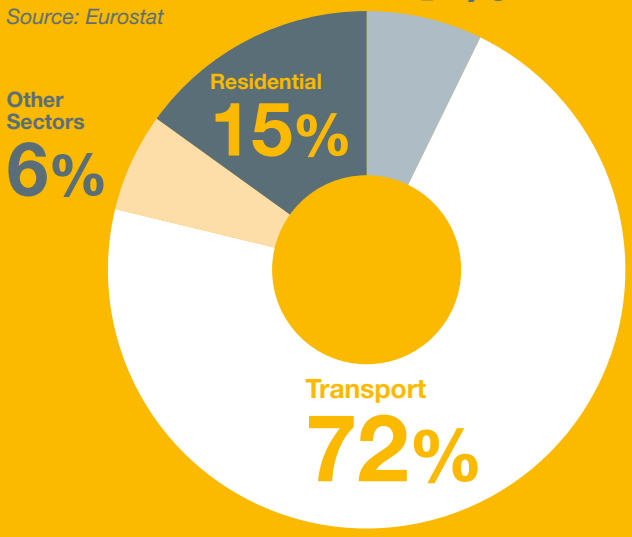
61.3%

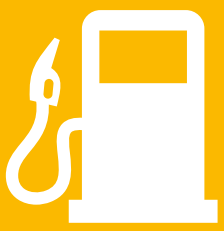
of the pump price of **petrol** is tax

Source: Revenue

Consumption of oil by sector

Source: Eurostat



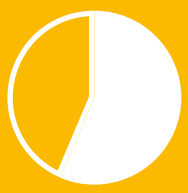


Diesel and gasoline consumption increased

by 11%

between 2011 and 2018 (petrol down **34%** and diesel up **42%**).

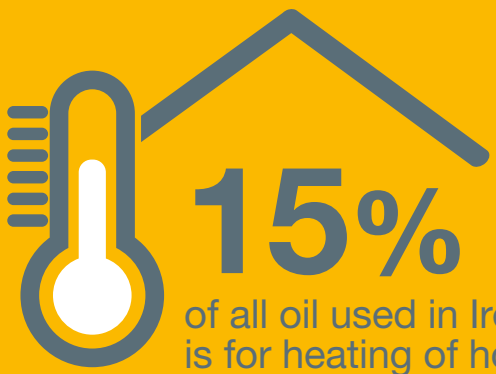
Source: National Oil Reserves Agency



56.5%

of the pump price of **diesel** is tax

Source: Revenue



15%

of all oil used in Ireland is for heating of homes – **twice the EU average**.

Source: Eurostat

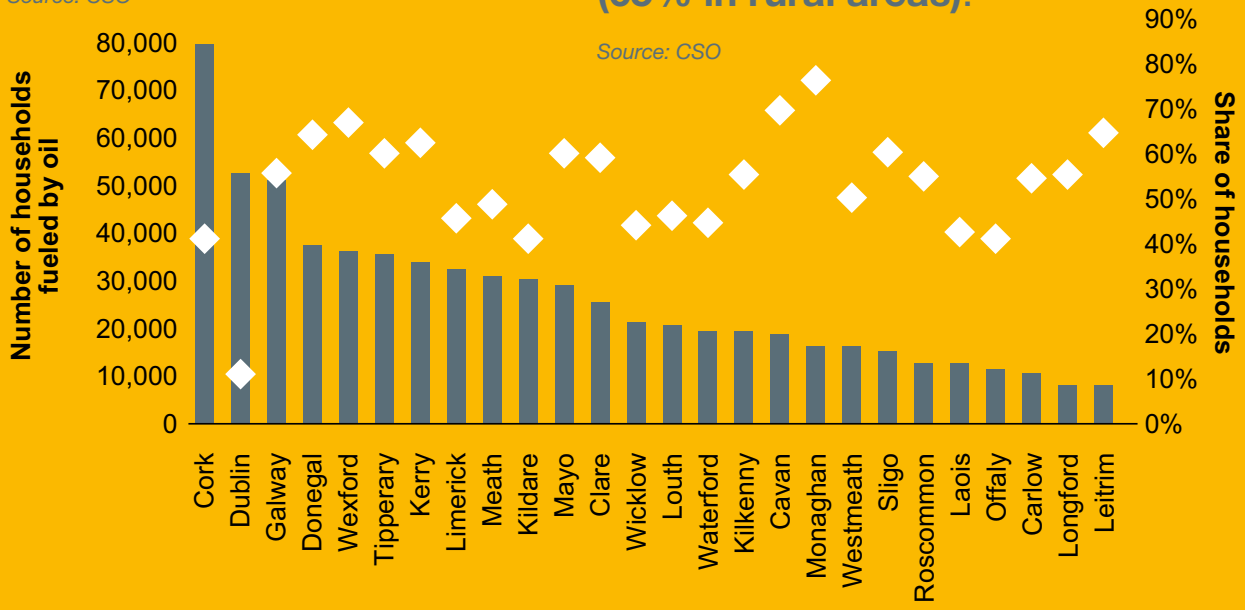
40%

of all homes in Ireland rely on home-heating oil **(65% in rural areas)**.

Source: CSO

Oil-fuelled Central Heating

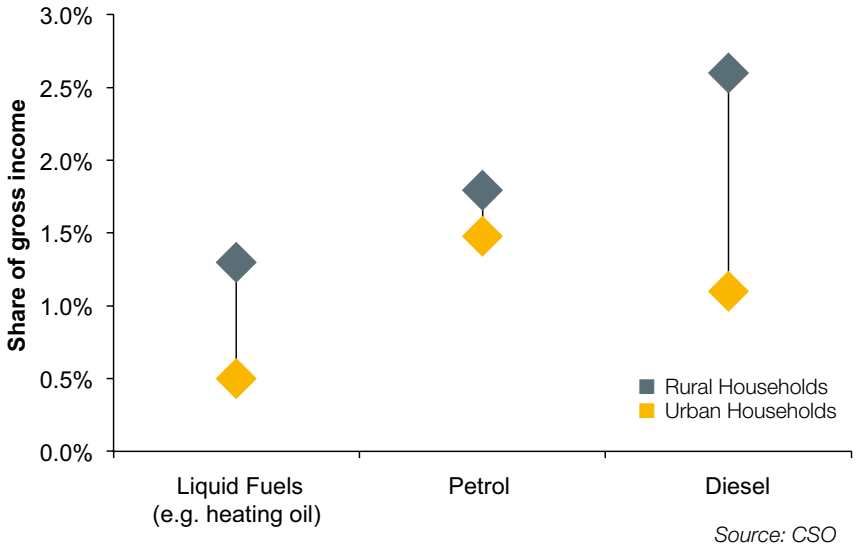
Source: CSO



Fuel Consumption by Region

Given the dispersed nature of Ireland's population spending on fuels also varies by region and there is an urban-rural divide. Rural households spend 1.3% of their income on heating oils, 1.8% on petrol and 2.6% on diesel. On the other hand, urban households spend 0.5% on heating oils, 1.5% on petrol and 1.1% on diesel.

Figure 9: Spending on Fuels by Income

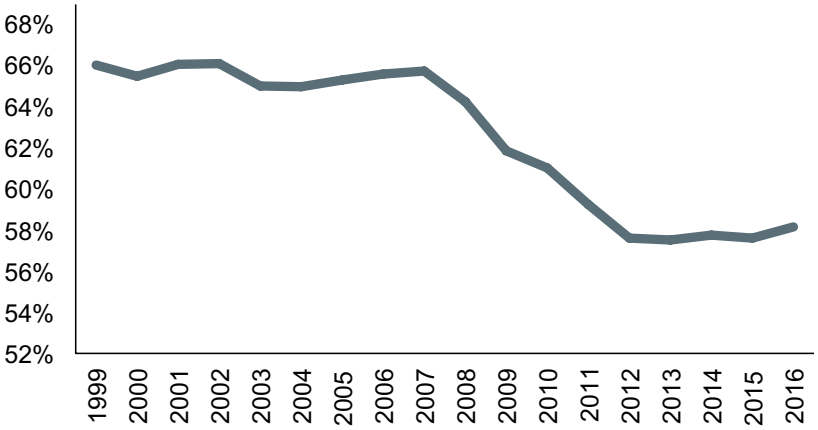


Source: CSO

Final Consumption of Oil

Ireland is one of the most oil-dependent countries in the EU. In 2016 oil accounted for 58% of total final energy consumption (excludes transformation) in Ireland. This was the fourth highest share in the EU. This share has fallen in recent years. In 2007, oil accounted for 66% of total consumption. At the same time, the share of all other products (excluding solid fuels) have increased.

Figure 10: Petroleum Share of Final Energy Consumption

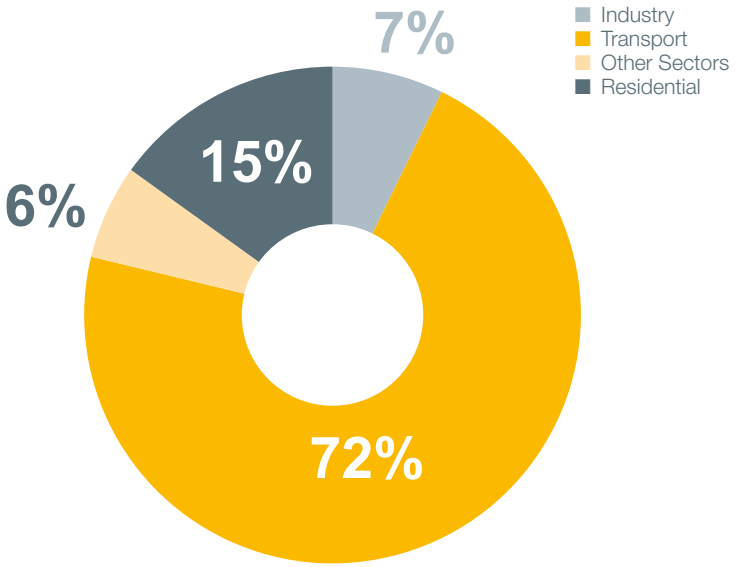


Source: Eurostat

Consumption of Oil by Sector

The transport sector accounts for 72% of total oil consumed in Ireland (excluding transformation). Roads account for 57% of total oil consumption in Ireland, and air travel 13%. Residential accounts for 15% of oil used in Ireland. This is a higher share than other EU countries as residential accounts for 7.6% of total oil consumed across the EU. This is because a higher proportion of households rely on heating oils for central heating in Ireland. Food manufacturing and agriculture account for 4.2% of all petroleum products consumed in Ireland. Petroleum products account for 76% of energy used in the agriculture sector and 26% of energy used in food manufacturing.

Figure 11: Final Oil Consumption by Sector

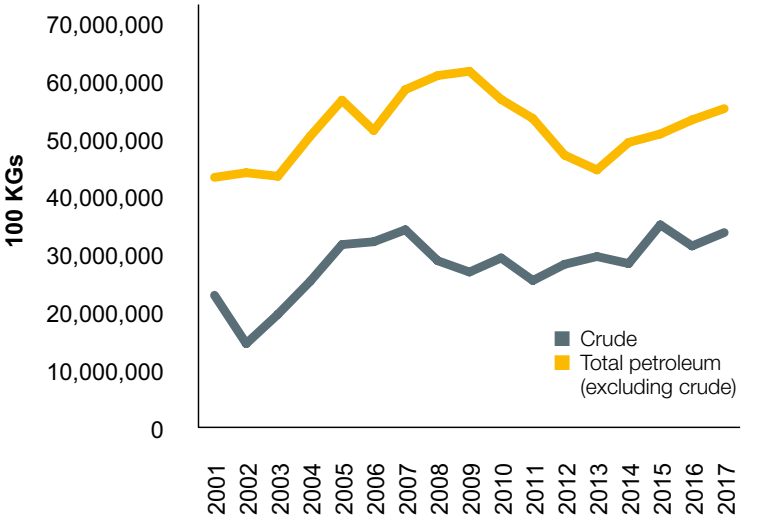


Source: Eurostat

Oil Imports

Oil imports have fallen since 2007 but this has mainly been driven by refined oil imports. Crude oil imports have remained relatively stable since 2005. The origin of these imports tends to vary. In 2017, Norway accounted for 57% of Ireland's crude oil imports, down from 84% in 2016. Over the same period, the UK's share increased from less than 1% to 21%. The other big crude oil exporters to Ireland were Nigeria and Algeria who accounted for 12% and 5% respectively. The UK accounted for 71% of refined oil imports, the US accounted for 10%, while Sweden and the Netherlands both accounted for 3%. As a significant proportion of these imports come from the UK, supply chains will experience significant disruptions in the event of a hard Brexit.

Figure 12: Oil Import Volumes

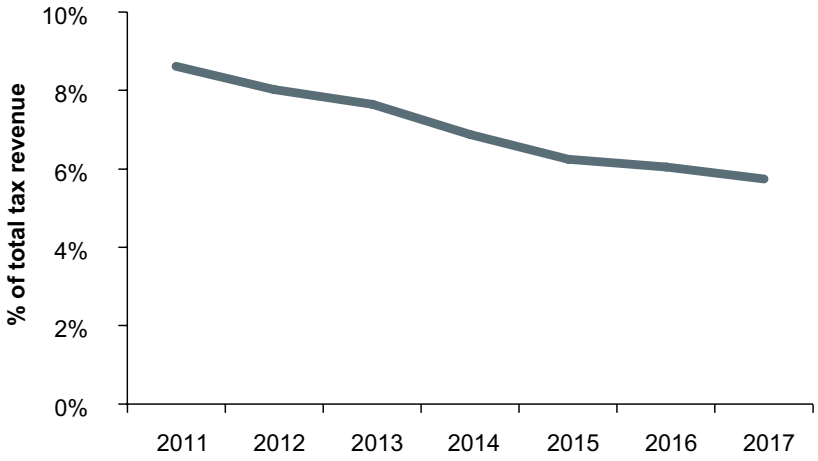


Source: Eurostat

Oil Tax Revenue

Last year oil brought in almost €3 billion worth of tax receipts. There are three main taxes on oil products. The first is excise duties which brought in just over €2 billion worth of revenue. Carbon tax on oil products generated €337 million worth of revenue. VAT accounted for the remainder. Overall, the tax generated from oil products has remained very stable since 2011, coming in at just under €3 billion every year. However, its share of total tax receipts has fallen. In 2011, oil products accounted for 9% of total tax revenue. Today it accounts for 6%. This share has fallen not because revenue fell but because other taxes grew at a faster rate (e.g. corporation tax).

Figure 13: Oil Share of Total Tax Revenue

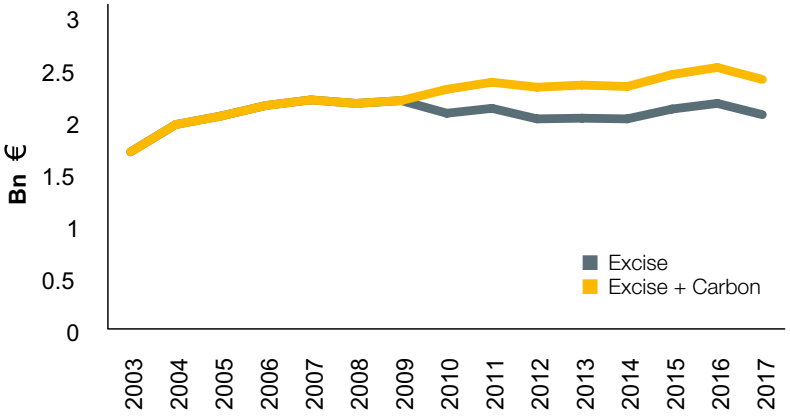


Source: Eurostat

Excise and Carbon Tax

Tax revenue generated from excise duties on oil products have remained relatively stable in recent years. In 2017, oil products generated just over €2bn in excise receipts which were 37% of total excise returns (excluding carbon tax). This was the largest contributor to excise returns as alcohol products accounted for 21% while cigarettes accounted for 25%. Diesel accounted for 53% of these receipts and petrol accounted for 16%, other oil products accounted for the remainder. Oil products also generated €337 million in additional receipts through the carbon tax. This accounted for 80% of total carbon tax receipts.

Figure 14: Excise and Carbon Tax

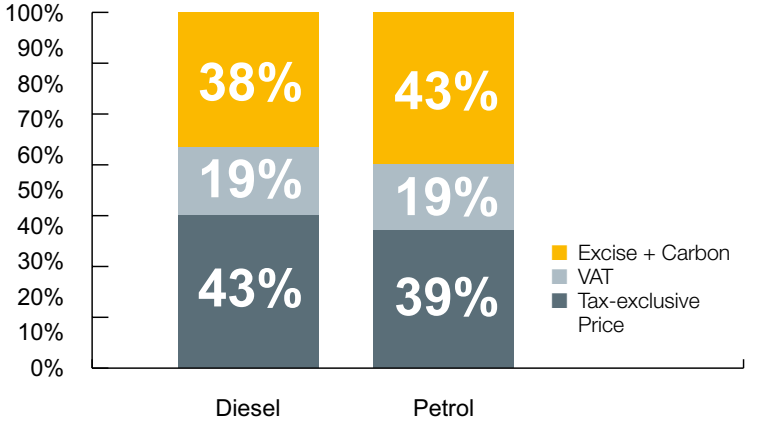


Source: Eurostat

Tax Incidence

In 2017, the tax incidence, which is the proportion of the final price that is paid in tax on 1 litre of diesel was 56.5%. The tax share on 1 litre of petrol was 61.3%. For diesel, 38% of the final price was excise and carbon tax, compared to 43% for petrol. VAT accounted for 19% of the final price for both products. Tax incidence changes over time depending on the price. In 2016, the tax incidence on diesel was 58.4% while petrol was 63.7%. The tax incidence is lower when the oil price is high, as excise is fixed and is based on quantities, unlike VAT. The tax incidence on these products is higher than a pint (30.6%), but lower than a packet of cigarettes (79.9%).

Figure 15: Breakdown of Diesel and Petrol Price

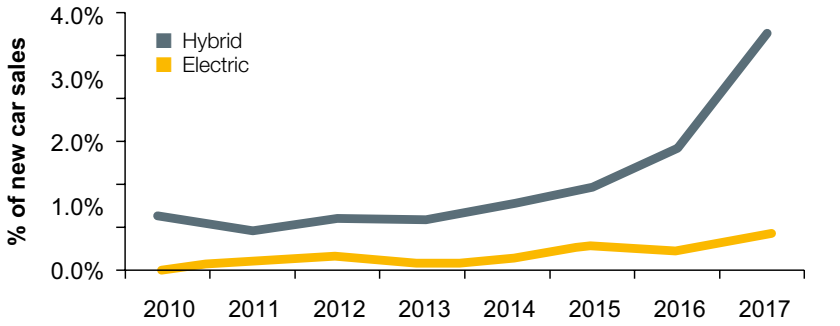


Source: Revenue

Electric and Hybrid Vehicles

Electric and hybrid vehicles have become more prominent in recent years but still account for a relatively small share of the market. In 2017, hybrid vehicles accounted for 4% of new car sales (4,539 cars), up from 1% in 2013. Electric vehicles account for a much smaller share of the market at 0.5% of new car sales, but have been growing. In 2017, 623 electric vehicles were sold, up from 23 in 2010. These trends look set to continue. In the first ten months of 2018, the number of electric and hybrid cars sold was 66% higher than the same period in 2017, accounting for 7.1% of new car sales in 2018.

Figure 16: Share of New Car Sales

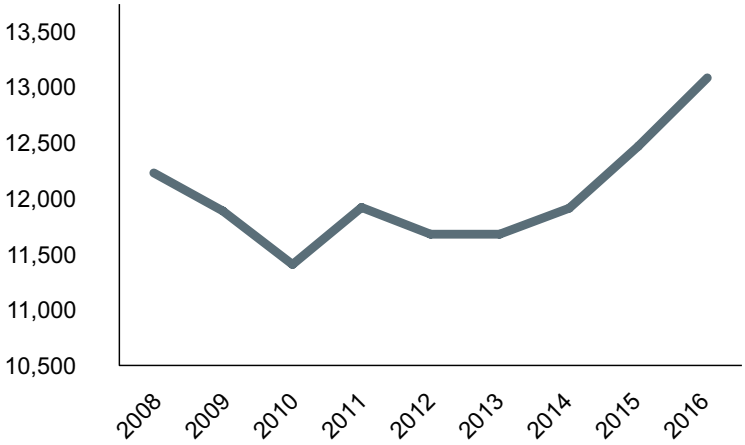


Source: CSO

Employment in Filling Stations

In 2016, there were 13,081 people employed in filling stations. This consisted of 12,608 employees and 473 owner-managers. Employment in filling stations fell by 6.7% from 2008 to 2010. Since that low point in 2010, employment has increased by 14.7%. In both 2015 and 2016 employment in filling stations increased by just under 5% and employment is now 7% higher than in 2008.Overall, filling stations accounted for 6% of total retail employment in 2016, up from 5% in 2008.

Figure 17: Employment in Filling Stations

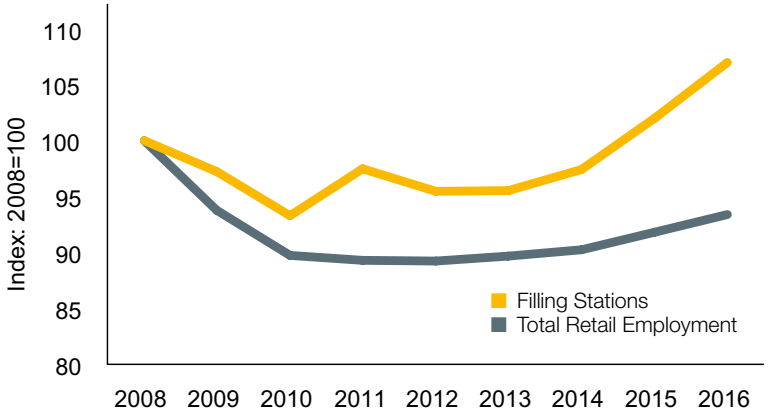


Source: CSO

Filling Stations v Total Retail

Employment in filling stations has had a stronger recovery than the rest of retail. Employment in the sector didn't fall to the same extent as the rest of retail from 2008 to 2010 and experienced a stronger recovery, particularly from 2014 to 2016. As a result, in 2016, employment in filling stations was 7% higher than in 2008. On the other hand, employment in retail was still 6.6% below 2008 levels. The primary reason for the stronger recovery is that certain retail categories, particularly books, electronics and clothes have faced greater competition in recent years due to online shopping.

Figure 18: Retail Employment



Source: CSO

Ownership Structure

There are almost 1,800 filling stations operating in the Republic of Ireland. The number of company-owned open sites is up from 421 last year, to 434 this year. However, this year also saw 17 closures of dealer-owned sites. The number of hypermarket sites has remained the same. The table shows how the Republic of Ireland market is divided according to ownership.

Figure 19: Number of Filling Stations by Ownership Structure

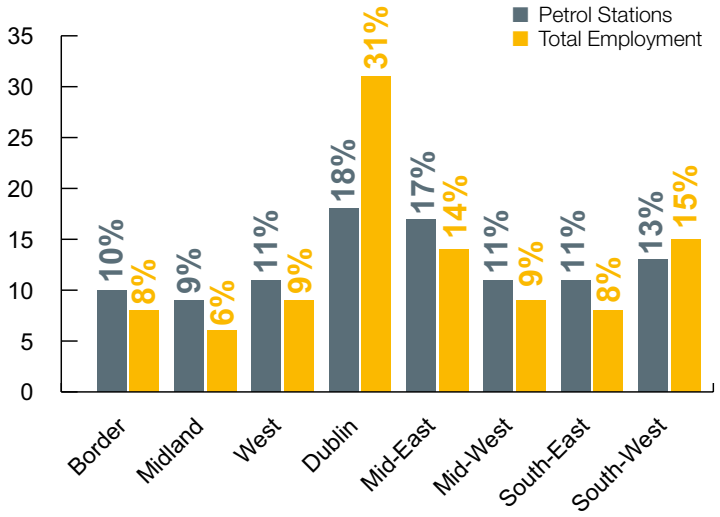
Ownership	Number of open sites	Average volume per site (kl p.a.)	% Market share MF volume	% Outlet share	Effectiveness
Company	434	2,702	40.2	24.3	1.66
Dealer	1,332	1,214	55.7	74.5	0.75
Hypermarket	21	5,679	4.1	1.2	3.50
TOTAL	**1,787**	**1,624**			

Source: IFCR / Experian Catalist.

Employment by Region

CSO census data provides a breakdown of employment in filling stations by region. Dublin accounts for 31% of total jobs in Ireland. However, filling stations have a better regional spread, as no region accounts for more than 20% of jobs in this sector. Overall, 82% of jobs in filling stations are located outside Dublin. It also has a greater regional spread than the overall retail sector, as 70% of retail jobs are located outside of Dublin. This is also much higher than in sectors such as ICT and financial services where less than 50% of jobs are outside the Dublin.

Figure 20: Breakdown of Employment by Region

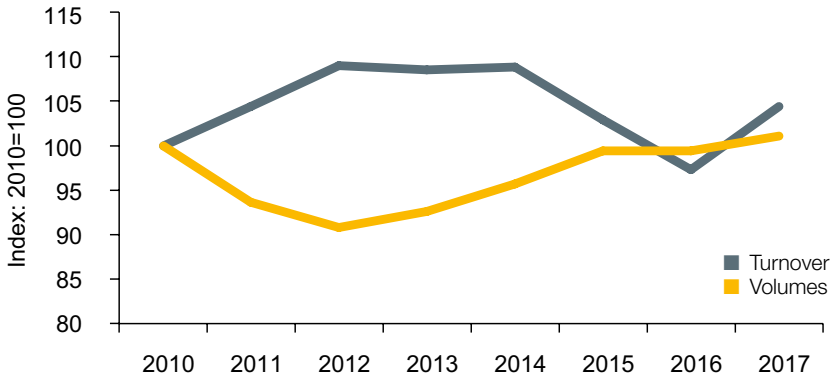


Source: CSO

Retail Sales in Filling Stations

Retail volumes in filling stations fell from 2010-2012, then recovered from 2012-2015 and since then have remained relatively flat. Overall volumes in filling stations are now the same as 2010, which is surprising given that many indicators point to more activity on the roads. Turnover in filling stations follows a different trend as it depends on global oil prices. From 2010-2012 while volumes fell, turnover increased by 9% due to rising oil prices. In 2017, turnover increased by 7.3% and overall turnover is now roughly the same as 2011.

Figure 21: Retail Sales in Filling Stations

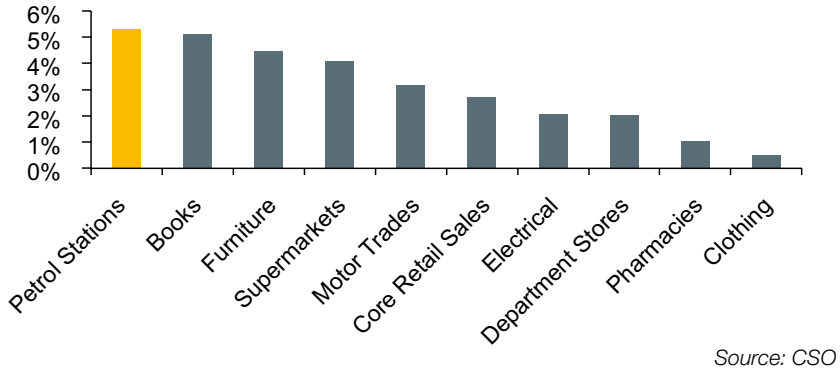


Source: CSO

Retail Turnover 2018 YTD

The global oil price has played a significant role in increasing turnover in filling stations in 2018. In the first nine months of 2018, turnover was 5.3% higher than the same period in 2017. This was the strongest growth for any retail category and almost twice as high as growth in core retail sales (which excludes cars and bars). This was largely driven by price effects and rising oil prices, as volumes only increased by 0.8% over the same period.

Figure 22: Retail Turnover Sep YTD 2018



Source: CSO

"IPIA members will continue to fuel Irish transport, heating and industry. We will continue to provide direct and indirect employment for thousands of workers. We will continue to collect billions of euro to fund government services and we will do all this while contributing to Ireland's evolution to a low carbon, climate resilient and environmentally sustainable economy."

Notes

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