

THE LAFFER CURVE IN ACTION

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Summary

- The Laffer curve illustrates the basic principle that while a tax rate of 0% will raise no revenue, after a certain point, an increase in a tax rate will cease to increase revenue and instead lead to a reduction in revenue. This is known as the prohibitive range. This paper examines three areas in which UK tax rates seem to have been pushed into the prohibitive range: alcohol duty, tobacco duty and landfill tax.
- In August 2023, the UK government introduced reforms to alcohol duty which increased the duty paid on spirits and many still wines. While the Office for Budget Responsibility (OBR) forecast an increase in revenue from alcohol duty, in reality it fell from £13.2 billion in 2021/22 to £12.4 billion in 2025/26 despite significant inflation in the intervening years.
- Many countries have used taxation as a means of reducing cigarette sales and smoking rates. However, in some countries high rates of tax have driven smokers towards illicit tobacco. In Australia, where tax per cigarette increased from \$0.26 in 2009 to \$1.40 in 2023, there has been a significant expansion in the illicit tobacco market, which the Australian Bureau of Statistics estimates now accounts for 80% of all tobacco consumed in the country.
- In the UK, real-terms revenue raised from tobacco duty fell by 40% between 2021 and 2025, with the OBR acknowledging that ‘the duty rate for cigarettes is beyond the peak of the “Laffer curve”’. Some of this is accounted for by a 20% drop in the number of adult smokers between 2021 and 2024, but a significant factor is high tax making illicit tobacco more

appealing. The number of smokers who bought tobacco on the black market doubled between 2023 and 2025 alone, and according to a study conducted by KPMG, almost a third of cigarettes consumed in Britain are now illicit.

- The UK introduced a landfill tax in 1996. Initially set at £7 per tonne, it had increased to £126.15 per tonne by 2025. Despite increases in the rate, revenue from the tax has been declining since 2013 and it now raises half as much in real terms as it did at its peak. Some of this gap may be explained by increased incineration of waste, but the number of recorded fly-tipping incidents also rose by 31% between 2018/19 and 2024/25, reaching an all-time high of 1.26 million incidents in England.
- Pushing taxes ever further into the prohibitive zone of the Laffer curve risks not only losing the government tax revenue, but also provides huge opportunities for those willing to engage in criminal activity. The cost of dealing with this falls on the public.

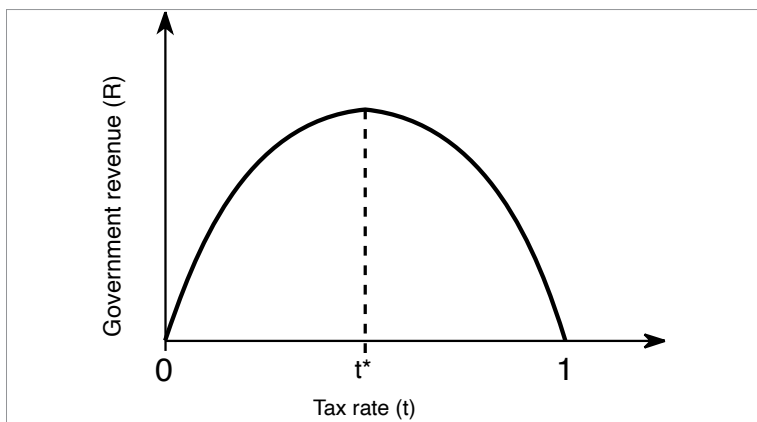
‘High taxes, sometimes by diminishing the consumption of the taxed commodities, and sometimes by encouraging smuggling, frequently afford a smaller revenue to government than what might be drawn from more moderate taxes.’

- Adam Smith, *Wealth of Nations*, Book V, Chapter II

The Laffer curve

In 1974 the economist Arthur Laffer drew a graph on a napkin to illustrate a point about taxation which had been known for centuries, although not by everyone. A tax rate of 0% yields no revenue, for obvious reasons. A tax rate of 100% also yields no revenue since no one would produce whatever was being taxed. Somewhere between these two extremes, there must be a revenue-maximising rate, and if this rate is less than 100%, it follows that there must be a point at which increasing the tax rate yields less revenue. Beyond this point, the incentives to avoid the tax become too great. Methods of tax avoidance take many forms but include ceasing to work, emigrating, making staff redundant, buying from illicit channels and outright tax evasion.

Figure 1: The Laffer curve



Laffer's curve (Figure 1) was symmetrical and implied a revenue-maximising rate of 50%, but this was purely illustrative. In

practice, the curve may be skewed, with tax revenues rapidly increasing at the early stages and rapidly diminishing after a certain tax rate is reached. The true shape of the curve can only be established through experience, and different taxes will produce different results. The graph drawn by Laffer was only intended to establish the basic principle.

In Britain, HMRC has shown that it is well aware of the pitfalls of excessive tax rates. In its 2025 modelling, it concluded that a 1% increase in tax generally led to an increase in tax revenue, but this was not always the case. The model suggested that a 1% increase in the rate of petrol duty and wine duty would not increase revenues and that a 1% increase in the higher rate of capital gains tax would lead to a decline in revenue (HMRC 2025).

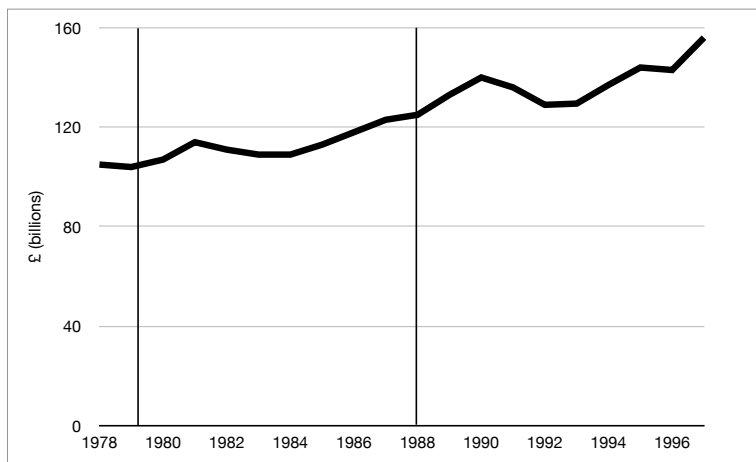
For an idea that seems inarguable in theory, the Laffer curve has been surprisingly controversial in practice. While only a few of its critics deny that higher tax rates could lead to lower revenues in theory, some have claimed that this has no practical implications, because governments keep rates below the revenue-maximising level in practice (e.g. Feininger 2024). This is not true, as we shall see, but if left-wing critics are too quick to deny that tax rates are sometimes in what Laffer called the ‘prohibitive range’ (i.e. above the revenue-maximising point), it should be acknowledged that some right-wingers are too quick to assume that the prohibitive range has already been reached. The idea that lowering tax rates will lead to more revenue is so appealing that it can lead to wishful thinking.

Fortunately, it is a theory that can be tested through empirical research. Corporation tax is often associated with the Laffer curve. Brill and Hassett (2007) found ‘strong statistical evidence of a Laffer curve in the international corporate tax data’, which they attribute to capital mobility. A striking example of this

is Ireland, which slashed its corporation tax rate from 32% to 12.5% between 1999 and 2003. This had a dramatic effect on corporation tax revenues, which grew from the equivalent of €2.6 billion in 1998 to €23.8 billion in 2023. In real terms, this was a fivefold increase.

The Laffer curve has been identified in some countries with regard to income tax, but Goolsbee (1999) concluded that such examples are quite rare. It has been argued that Scotland lost £22 million when its top rate was increased to 48% although this is in comparison to a counterfactual; income tax revenue rose overall albeit by less than the rest of the UK (Neidle 2026). The impact of Ronald Reagan's income tax reforms of 1986 continue to be hotly debated, but cuts to the top rate of income tax in the UK in the 1980s certainly did not lead to less tax revenue and may have increased it. The top rate was cut from 83% to 60% in 1979 and then to 40% in 1988. The basic rate was also cut, from 33% to 30% (1979), from 30% to 27% (1987) and then from 27% to 25% (1988). In Figure 2, with lines showing the two major cuts to the top rate, it can be seen that the recessions of the early 1980s and early 1990s suppressed income tax revenues, but that the cuts to income tax rates were followed by increases in revenue.

Figure 2: Income tax revenues in the UK 1978/79 to 1997/98 (in 2026 £s)



There should be no dispute over whether tax rates can enter a prohibitive range and nor can it be denied that there are real-world examples of revenues falling when tax rates increase and vice versa. Moreover, there is evidence of positive second-order effects on economic growth which lead to revenues from other taxes rising when another tax rate declines (e.g. Minford and Meenagh 2020). The real debate pertains to specific tax rates in the here and now and the question of whether they are at or over the revenue-maximising point.

At its core, the issue is about tax elasticity: the extent to which behaviour changes in response to changing tax rates. In Britain, it is often the case that increasing a tax rate raises less money than the Office for Budget Responsibility (OBR) expects, but it remains unusual for such tax rises to lead to a fall in revenue from that tax, at least in the short term. As the tax burden grows, one might expect to see more examples of the Laffer curve in action as a result of more tax rates entering the prohibitive range. The tax burden has certainly grown in the UK in recent years.

In 2025/26, public sector current receipts amounted to 40.2% of GDP, up from 36.5% in 2019/20. In 2026/27, it is projected to be 41.2%, the highest since 1969/70. And in 2027/28 it is projected to be 42%, the highest since 1951/52 (OBR 2026a).

This huge increase in the size of the state has been largely achieved through fiscal drag and by increasing the rates of corporation tax, employers' National Insurance and capital gains tax. Quite obviously, this did not lead to a reduction in overall revenue and we might therefore conclude that the Laffer curve is of no relevance at a macroeconomic level, but dig deeper into the data and it becomes clear that there are several taxes which now appear to be in the prohibitive range. This paper will examine three of them.

Alcohol duty

Between 2012 and 2014, the government of Estonia increased taxes on alcohol by 5% per year. It raised these taxes by a further 15% in 2015 and by another 15% in 2016. It expected alcohol revenues to rise from €251 million in 2016 to €276 million in 2017. Instead, they fell to €229 million. In 2018 alcohol revenues were 30% lower than expected, losing the treasury €101 million. Chastened by this experience, the government abandoned plans for further tax rises and slashed alcohol duty by 25% across the board in 2019.

In the UK, the government froze duty on wine and spirits between 2017 and 2022, leading to these tax rates falling by more than 20% in real terms (see Figures 3 and 4).

Figure 3: Wine duty per hectolitre (on 14.5% ABV wine)

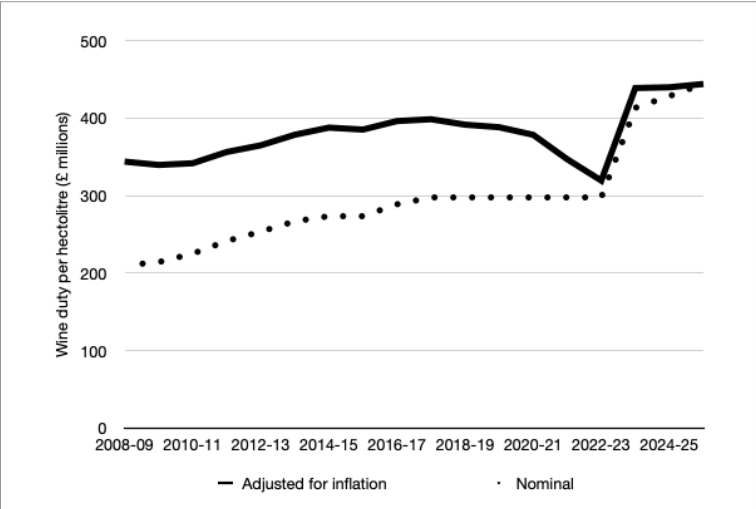
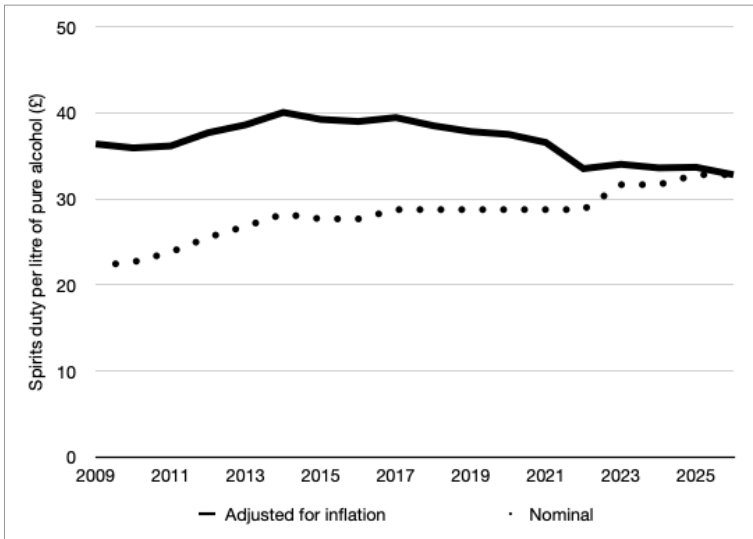
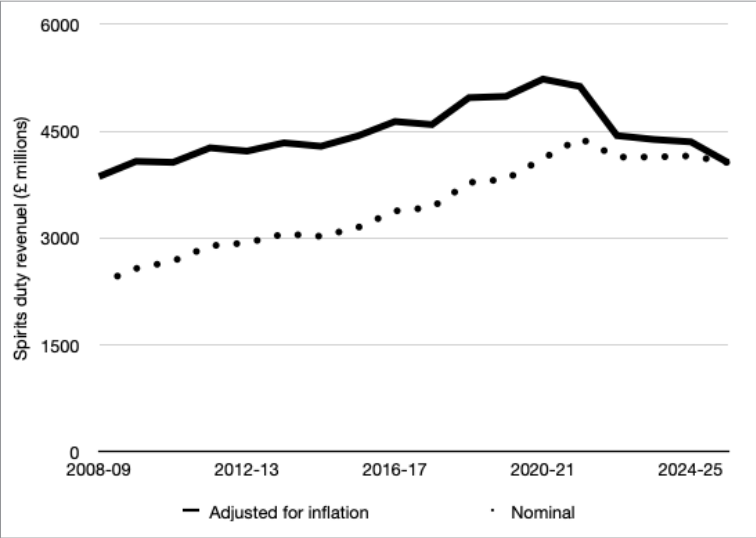


Figure 4: Spirits duty per litre of pure alcohol

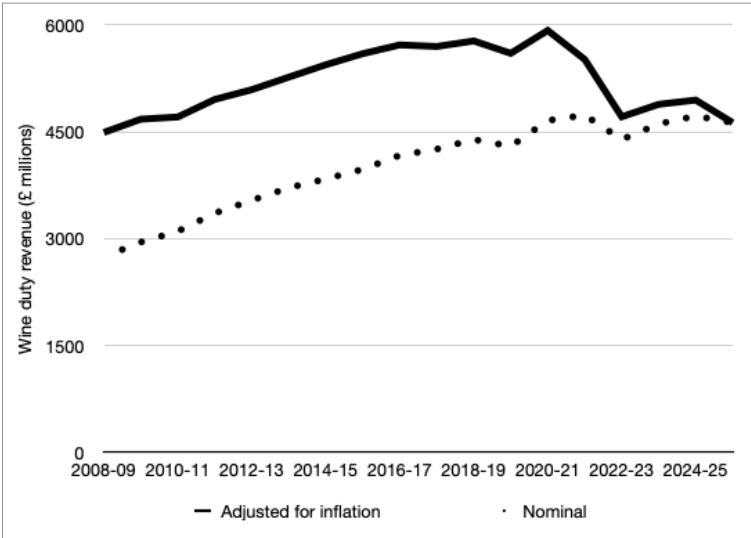
Despite the rate being frozen in nominal terms and reduced in real terms, revenues from wine and spirits duty rose in both real and nominal terms for most of this period and, although revenues fell in real terms in 2022/23, they were still higher than they had been five years earlier. In August 2023, the government increased spirits duty from £28.74 per litre of pure alcohol (equivalent to £11.50 on a typical bottle of whisky) to £31.64 per litre of pure alcohol (equivalent to £12.66 on a typical bottle of whisky). The expectation was that revenues would increase. In fact, they fell. A further tax rise on spirits – to £32.79 per litre of pure alcohol – came into effect in February 2025 and revenues fell again. Between 2023/24 and 2025/26, spirits duty revenue fell from £4,137 million to £4,059 million. Spirits duty revenue in nominal and real terms is shown in Figure 5.

Figure 5: Spirits duty revenue from 2008/09 to 2025/26



August 2023 also saw a major overhaul of the wine duty system, with a greater emphasis on taxing alcohol by the unit. This system produced winners and losers. Consumers of sparkling wine and low-alcohol wine tended to benefit, but most drinkers faced tax rises. Between 2022 and 2026, the tax on a 14.5% ABV litre of still wine rose from £2.98 to £4.44. Again, it was expected that wine duty receipts would rise, but, as can be seen in Figure 6, they fell in real terms.

Figure 6: Wine duty revenue from 2008/09 to 2025/26



In November 2022, the OBR forecast that alcohol duty receipts would rise from £13.2 billion in 2021/22 to £14.2 billion in 2024/25, largely as a result of the higher tax rates (OBR 2022: 60). In fact, despite significant inflation in the intervening years, they dropped to £12.6 billion in 2024/25 and, despite further duty increases in February 2025, fell to £12.4 billion in 2025/26.

The Estonian tax hikes encouraged drinkers to travel to neighbouring Latvia, where alcohol was around 40% cheaper (Stoppel et al. 2023). It is possible that the UK tax rises led to an increase in duty-free shopping for spirits (the personal allowance was increased to four litres in 2021), but it may simply be that higher taxes dampened demand. Whatever the reason, the result was the opposite of that expected by the government.

It was also contrary to what many anti-alcohol groups would have predicted. The World Health Organization encourages every

country to increase alcohol duty, claiming that ‘when taxes form a larger share of the final retail price of alcohol, governments consistently collect more revenue – *even when people drink less*’¹ (my emphasis).

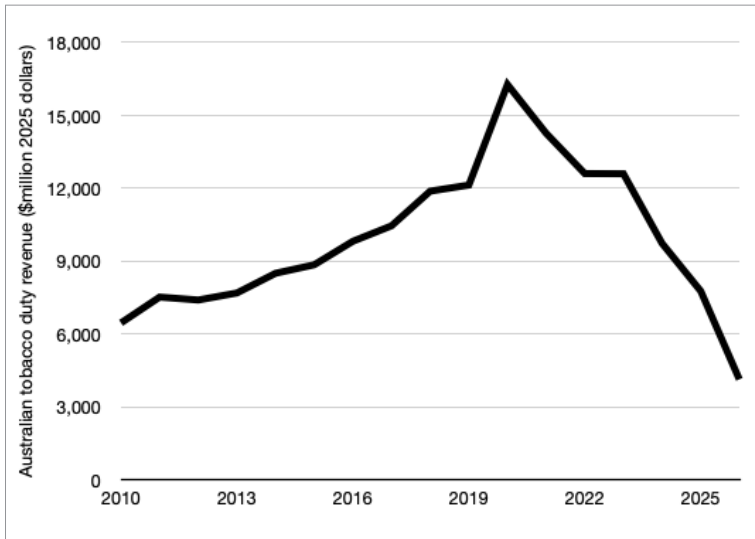
¹ <https://www.who.int/europe/activities/raising-taxes-on-alcohol-to-save-lives-and-protect-public-health>

Tobacco duty

Many countries have used taxation as a means of reducing cigarette sales and smoking rates. Through incremental increases, governments have been able to increase total tobacco duty revenues despite significant reductions in smoking prevalence. There are limits to this strategy, however. Several countries have recently seen a sharp decline in revenue that cannot be explained by the decline in the number of smokers. The most dramatic example is Australia, shown in Figure 7.² Starting with a 25% increase in tobacco duty in 2010, the Australian government increased the tax on tobacco sharply, taking the tax on each cigarette from \$0.26 in 2009 to \$1.40 in 2023. Between 2013 and 2020 there were annual tax rises of 12.5%. These tax rises were sufficient for tobacco duty revenue to grow despite the smoking rate falling from 16.1% to 11.1%, but there has been a steep decline in revenues since 2023 as a result of smokers switching to illicit sources. In 2026 the Australian Bureau of Statistics estimated that 80% of the tobacco consumed in the country was illicit.

2 The figure for 2026 is an Australian government projection.

Figure 7: Tobacco duty revenues in Australia (2010–26) in 2025 AUD



A similar story has been playing out in the UK and Ireland, where tobacco taxes have grown close to Australian levels. In Ireland, the Office of Revenue Commissioners were alert to the Laffer curve as early as 2011 when they published a report which stated:

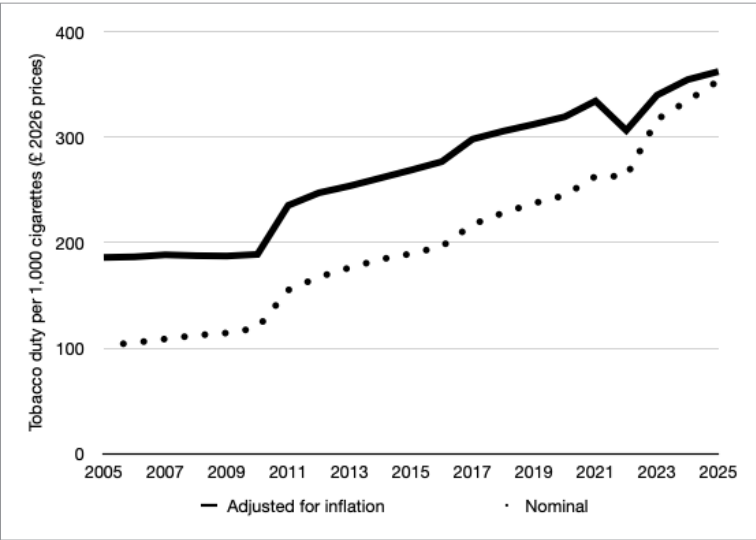
It seems likely that a Laffer type effect exists in the cigarette market in Ireland and the current level of taxation may be beyond the optimum. Therefore higher tax rates (higher prices) will lead to lower tax revenue. (Reidy and Walsh 2011: 26)

These researchers found that the price elasticity for cigarettes had reached -3.6 in Ireland, implying that a 10% increase in price led to a 36% decline in consumption (Reidy and Walsh: 24). This was much higher than previous estimates in Ireland of between -0.5 and -1 and surprisingly high for a notoriously addictive product. The explanation for this discrepancy was that the officials were only able to study demand for cigarettes sold

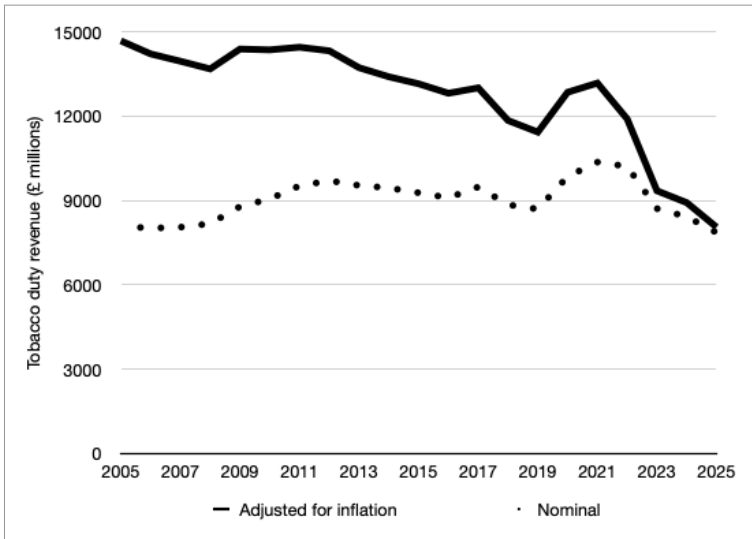
legally. Demand for legal cigarettes was indeed quite elastic but only because consumers were switching to illegal cigarettes or buying cigarettes abroad. The researchers noted that Ireland's cigarette prices were more than double the EU average (Reidy and Walsh: 25). Figures were not available for 2024 or 2025 at the time of writing, but tobacco duty revenue fell from €1,318 million in 2021 to €1,005 million in 2023, despite the tax on a pack of cigarettes rising by €1 (Irish Tax and Customs 2024).

The UK appears to be heading the way of Australia. As shown in Figure 8, excise duty on cigarettes has increased enormously since 2010. The figures shown here understate the tax burden on smokers since there is also a 16.5% *ad valorem* tax on top of the duty and a minimum excise tax. The legal minimum tax on 1,000 cigarettes is currently £471.93 (£9.44 per pack), and this is set to rise to £518.75 (£10.38 per pack) in October 2026.

Figure 8: Tobacco duty rates per 1,000 cigarettes



As shown in Figure 9, tobacco duty revenues held steady in nominal terms at around £9 billion per year throughout the 2010s until rising somewhat during the pandemic and falling thereafter. But after adjusting for inflation, we can see that revenues have been on a downward trajectory since 2012 and have been in free fall since 2022. In real terms, they fell from £13.2 billion in 2021 to £8 billion in 2025, a decline of 40%, despite successive above-inflation increases in duty. Overall, the sale of cigarettes (including hand-rolling tobacco) fell by 52% in this period (HMRC 2026a).

Figure 9: Tobacco duty revenues in the UK

One of the stated aims of raising tobacco taxes is to encourage smokers to quit, but that is not the main reason for the collapse in legal tobacco sales. Figures were not available for 2025 at the time of writing, but between 2021 and 2024 the number of adult smokers in the UK fell by 20%, according to the Office for National Statistics (ONS 2025), while the number of cigarettes sold legally fell by 46%. Moreover, the ONS estimates that smokers have increased their daily consumption of cigarettes somewhat since 2021 (ONS 2025).

As in Australia, smokers in the UK have increasingly abandoned legal cigarettes for illicit alternatives. The number of smokers who bought tobacco on the black market doubled between 2023 and 2025 (Jackson et al. 2026). A long-running study of discarded cigarette packs carried out by KPMG on behalf of Philip Morris International as part of an agreement with the European Commission shows that the proportion of cigarettes

bought illicitly grew steadily in the 2010s and began to soar after 2021 (see Figure 10) (KPMG 2026). The Irish government has found similar results from its annual survey in which smokers’ cigarette packs are examined. In 2025 it found that 28% of cigarette packs were illegal and a further 10% had been bought legally outside of Ireland (Irish Tax and Customs 2026). Figure 11 shows the trend for illegal packs.

Figure 10: Share of manufactured cigarettes that are contraband or counterfeit (UK)

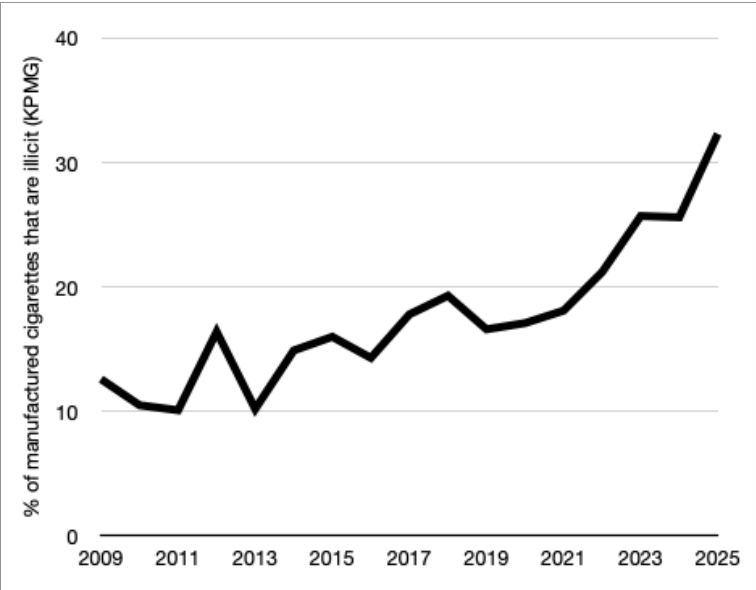
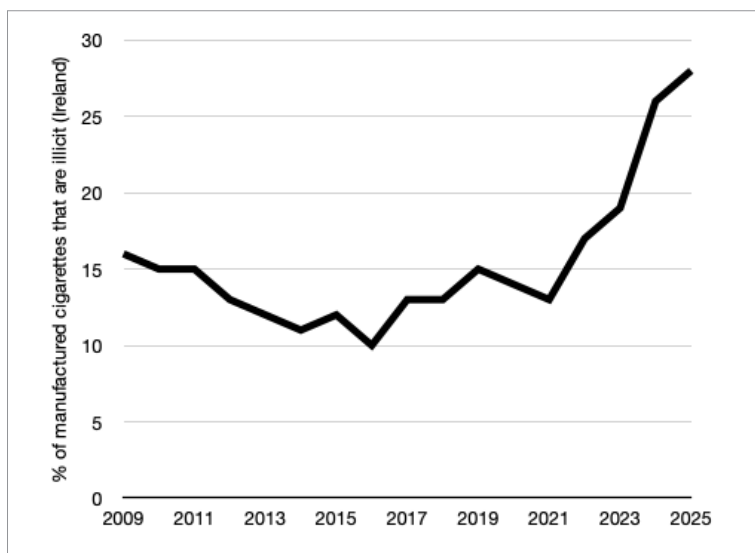


Figure 11: Share of manufactured cigarettes that are contraband or counterfeit (Ireland)



As of 2025, 32.3% of manufactured cigarettes in the UK were counterfeit or contraband. This does not include hand-rolling tobacco, which is even more likely to be bought illicitly or abroad. Since there was no increase in the smoking rate in 2020 or 2021, it is very likely that the little spike in tobacco duty revenue in these two years was due to smokers being less able to access illicit and duty-free tobacco during the pandemic.

Although the OBR acknowledged in 2023 that ‘the evidence suggests that the duty rate for cigarettes is beyond the peak of the “Laffer curve”’ (OBR 2023), it did not expect to see tobacco duty revenue decline, let alone fall so rapidly. Its projections in November 2022 forecast that receipts would rise from £10.2 billion in 2021/22 to £10.7 billion in 2022/23 and then to £11.4 billion in 2023/24 (OBR 2022: 60). In fact, they fell to £8.8 billion in 2023/24 and have since fallen below £8 billion.

The landfill tax

England and Northern Ireland have had a landfill tax since 1996. As shown in Figure 12, the standard tax rate on a tonne of waste has grown enormously since it was introduced, from £7 in 1996 to £126.15 in 2025. There was a particularly steep increase between 2006 and 2014 when it nearly quadrupled from £21 to £80, but while revenues increased in this period, the increase was by no means commensurate with the increase in the tax rate, and as the tax rate continued to rise well above the rate of inflation, revenues began to fall sharply, as shown in Figure 13. At its peak in 2013 it was raising £1.2 billion, but today it is barely yielding half of that. Despite another big increase in the tax in 2025, the government was making less revenue in 2025 (in real terms) than it had in 1998.

Figure 12: Landfill tax rates

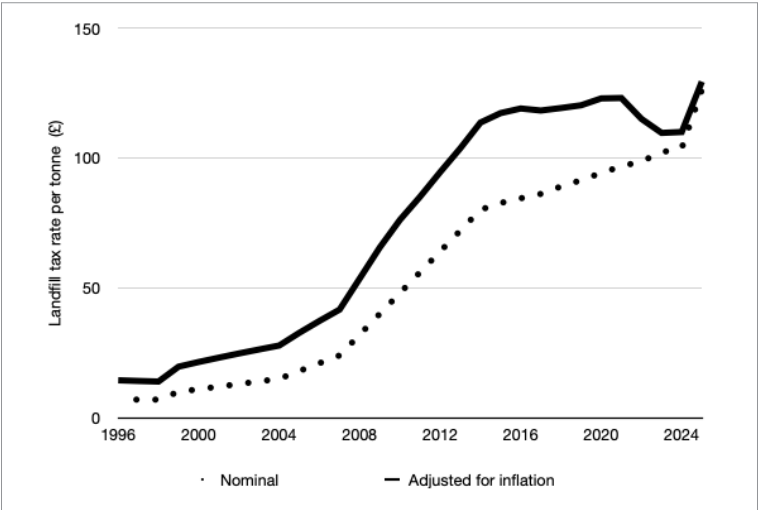
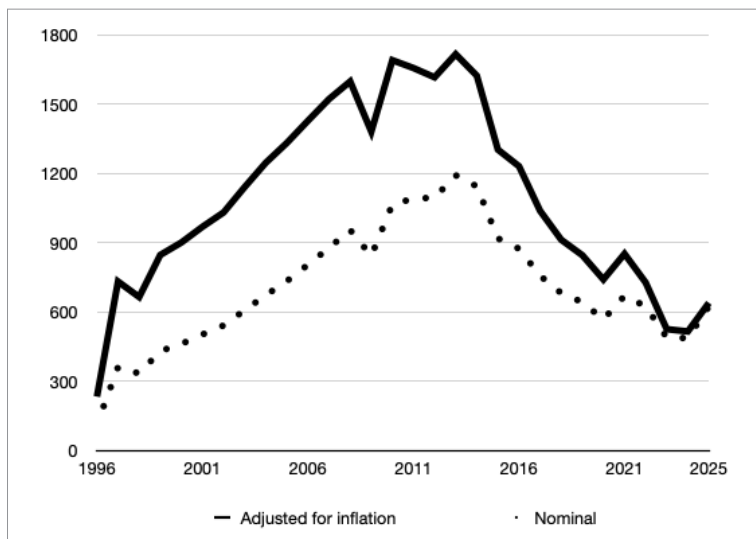


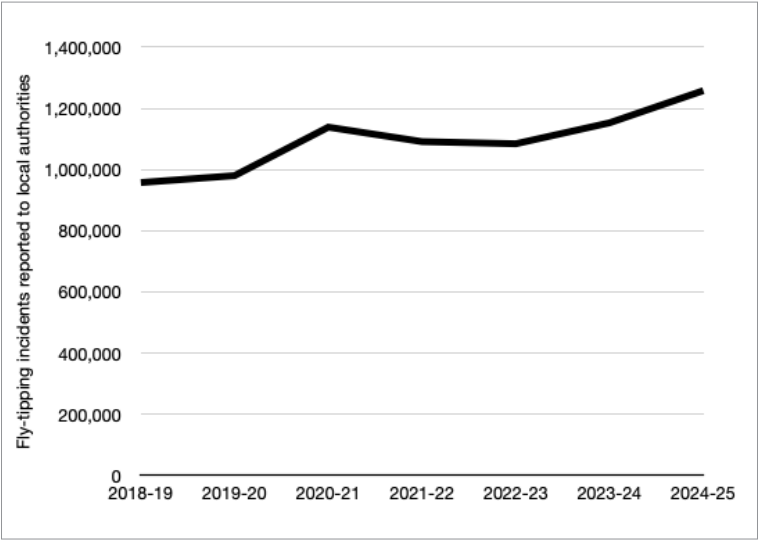
Figure 13: Landfill tax revenue

Once again, this caught the OBR by surprise. In its forecast of December 2014, it expected landfill tax revenues to be £1.2 billion in 2019/20. In the event, they came in at £730 million (OBR 2026b).

As with tobacco duty, justifications for the landfill tax include changing behaviour and internalising external costs. But, also like tobacco duty, high tax rates have led to unintended consequences. Acknowledging that landfill tax receipts have ‘fallen short of many of our previous forecasts’, the OBR (2026b) explains that this is partly due to increased levels of incineration. It is far from clear whether incineration is preferable to landfill from an environmental point of view, but the OBR does not mention another reason why landfill tax receipts have been falling: hundreds of thousands of tonnes of waste are being dumped illegally.

Comparable figures are only available from 2018/19, but they show a steady increase in the number of fly-tipping incidents reported to local authorities (see Figure 14). In seven years, the number of recorded fly-tipping incidents rose by 31% and reached an all-time high of 1.26 million in England in 2024/25. These figures do not include most cases of fly-tipping on private land, nor large incidents dealt with by the Environment Agency.

Figure 14: Fly-tipping incidents reported to local authorities from 2018/19 to 2024/25



The charity Clean Up Britain has called fly-tipping a ‘national epidemic’³. In 2025, 21,000 tonnes of rubbish were dumped in a single field in Oxfordshire. The clean-up operation was expected to take six months and cost £7.3 million. A few months earlier, 30,000 tonnes of household and construction waste had been

3 <https://cleanupbritain.org/clean-up-britain-comments-on-defras-2024-5-fly-tipping-statistics>

dumped 15 feet high in a field in Kent. These high-profile incidents followed 52,000 large-scale fly-tipping cases involving tipper lorries or similar vehicles reported to local authorities in 2024/25 (DEFRA 2026).

As the government acknowledged in its 2017 Litter Strategy for England: ‘Businesses caught fly-tipping have cited the reason for doing so as including lack of funds to pay legitimate waste disposal charges’ (HM Government 2017: 52). The cost of disposing 30,000 tonnes of waste legally is £3.8 million. The tax system is incentivising industrial-scale fly-tipping. While central government receives hundreds of millions of pounds in landfill tax revenue, the cost of cleaning up fly-tipped waste is passed on to the local authorities, the Environment Agency and private landowners.

Cause and effect?

In this paper, we have seen three examples of tax revenues declining after tax rates rise, with supporting evidence of similar effects in Estonia (alcohol), Ireland (tobacco) and Australia (tobacco). To what extent did the tax rises cause the declines in revenue? One criticism of early research that was cited to support the Laffer curve is that it implicitly assumed that the tax rate was the only relevant exogenous variable (Mirowski 1982). Economies are dynamic and contain many moving parts. Tax revenues may decline because the economy has gone into recession. Governments may increase the tax rate on a product that is becoming less popular in order to squeeze (relatively) more money out of a shrinking tax base. As we have seen, unusual events such as the COVID-19 pandemic can create unusual consumption patterns.

Correlation does not equal causation. The existence of a Laffer curve cannot be proven; it can only be deduced. The impact of income tax cuts in the US and UK in the 1980s continues to be hotly debated, with critics of the Laffer curve arguing that income tax revenue rose not because of the tax cuts but because of fiscal drag or other economic reforms that took place concurrently. Supporters of Laffer would agree that those reforms were important while arguing that there are many ways in which tax cuts can directly and indirectly stimulate the economy, thereby increasing tax revenue, but that it is difficult to isolate the effects of each of them, let alone prove causation.

Of the examples in this paper, the decline in wine and spirits duty revenue following the rise in taxes is perhaps most susceptible

to exogenous variables. For spirits, the tax only rose in line with inflation, albeit in a year when the Retail Price Index was 10.1%⁴.

There had been a long-running trend towards moderate drinking and total abstinence, particularly among the young. There was also a tendency towards ‘premiumisation’, with consumers buying more expensive brands but less alcohol overall. And the picture is complicated by the effects of COVID-19 lockdowns of 2020 and 2021, which led to a shift from beer and cider to wine and spirits and caused tax revenues for the latter to be unusually high in those years. It is also possible that lower wine and spirits revenues in 2022/23 – which preceded the tax rises – were partly the result of consumers drinking alcohol they had stockpiled during the pandemic.

All of these factors could help explain the decline in alcohol duty revenues from 2022 onwards. Nevertheless, the decline in wine duty revenue, in particular, jumps off the page and was as sudden and dramatic as the increase in wine duty. It is also notable that wine and spirits duty revenues generally rose year on year when the duty was frozen and therefore falling in real terms. This looks like a classic Laffer effect of lower tax rates (in real terms) and higher tax revenue followed by higher tax rates and lower tax revenue.

The case of tobacco duty seems more clear-cut. The precedent of Australia is unambiguous, and the evidence of a growing black

4 Throughout this paper, I have shown tax rates in both nominal and real terms. For economists, it is only the inflation-adjusted rate that matters, but for consumers in a time of high inflation, sharp price rises in nominal terms may have a significant psychological effect even if they are negligible in real terms. Moreover, in the short run, average earnings did not keep pace with inflation. With all prices rising sharply, the decline in alcohol consumption may have been a reflection of general cost-of-living pressures.

market in the UK, although not fully recognised by HMRC, is strong⁵. Alternative explanations for the rapid decline in tobacco duty revenues since 2021, such as increased vaping and lower cigarette consumption per smoker, can be ruled out. Some smokers have quit, and many of them have switched to e-cigarettes, but this cannot explain the scale of the decline in legal tobacco sales.

Illegal activity also seems to have played a part in the decline in landfill tax revenues. There are legitimate reasons why revenues from this tax could decline: the amount of waste fit for landfill may have fallen sharply as a result of less waste being created and more waste may have been recycled or incinerated. These factors have certainly contributed in the UK, but so have various forms of tax evasion. HMRC estimates that the landfill tax gap was 33.2% of theoretical liabilities in 2024/25, amounting to £240 million (HMRC 2026b). The scale of fly-tipping is not easy to measure, but the evidence suggests that is widespread, has become more common over time and is at least partly driven by the high cost of legal waste disposal. Despite, or perhaps because of, steadily rising rates of landfill tax, revenues have more than halved in real terms since 2013.

Fly-tipping cannot be the sole explanation, however. Although it is believed that hundreds of thousands of tonnes of waste, possibly more than a million, are illegally dumped each year, the standard rate of landfill tax was paid on around 4 million tonnes of waste in 2024/25 and the lower rate was paid on around 8 million tonnes. Fly-tipped waste therefore makes up a relatively small proportion of the total, but fly-tipping is only one illegal

5 HMRC estimates that the tobacco tax gap was 'only' 14% in 2024 / 25. This is less than half the size of other estimates and there are several reasons to think that HMRC's methodology is flawed (see Snowdon 2026).

response to high taxes. Companies can also evade the landfill tax by fraudulently claiming the much lower rate for inert waste (currently £4.05 per tonne) and under-reporting the weight of the waste they dispose of. As the tax rate increases, incentives to use such tricks become stronger.

Conclusion

One of the stated objectives of tobacco duty and the landfill tax – and, to some extent, alcohol duty – is to reduce the consumption and production of ‘demerit’ goods. To some extent this has worked: the number of smokers has declined and the amount of recycling has increased. But these taxes also aim to increase tax revenue, and, to repeat, it was fully expected that increased tax revenue would be the outcome in all three of these case studies. Until quite recently, higher tax rates compensated for the shrinking tax base. Tobacco duty revenues were broadly maintained in real terms until 2013 when they began to drop gradually and then, after 2021, rapidly. Landfill tax revenues rose until 2013, after which they went into steep decline despite the tax rate doubling. In both cases, there is strong evidence of a growth in tax evasion. In the case of alcohol, duties on wine and spirits appear to have been at their revenue-maximising point by the early 2020s after inflation had reduced them in real terms. Sharp tax hikes from 2023 failed to draw more revenue.

Whatever intentions lay behind these tax rises, it is clear that the government expected them to raise more money. The OBR consistently predicted significant increases in revenue, but in all three cases, revenues shrank significantly. The OBR forecast that by 2024/25, alcohol duty would yield £14.2 billion, tobacco duty would yield £11.2 billion and the landfill tax would yield £740 million, an overall increase of £2.1 billion compared with 2021/22. In reality, these duties yielded £12.4 billion, £7.9 billion and £590 million respectively, an overall loss of £3.2 billion compared with 2021/22 and £5.2 billion less than projected.

Economic forecasting is as much an art as a science, and there are factors other than tax rates that influence consumption, but a shortfall of £5.2 billion from three taxes – of which just two taxes were responsible for £5.1 billion – is not a trivial ‘black hole’ in the budget. It is a serious failure of modelling which suggests an over-reliance on static models and an under-appreciation of the behavioural changes that can be caused by excessive taxation. Some of those behavioural changes may be intended and expected (e.g. lower smoking rates and more recycling). Other behavioural changes, such as smokers switching to illicit tobacco and construction firms turning to fly-tipping, are unintentional and were apparently not expected – but they should have been.

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