Landfill Tax in the United Kingdom[i]

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Brief summary of the case

The UK landfill tax was introduced in 1996 in order to better reflect the environmental costs of landfilling. The aim was therefore both to reduce the overall levels of waste produced and to send less waste to landfill. The tax has two bandings: inert waste, currently levied at GBP 2.65 (EUR 2.96) per tonne, and non-inert waste, currently levied at GBP 84.40 (EUR 94.21) per tonne, originally at GBP 7 per tonne.[1] When the tax was first introduced, it received wide-spread support from industry, local authorities and NGOs. This was a result of the original intention for the tax to be revenue-neutral by offsetting a reduction in national Insurance Contributions. Furthermore, operators of landfill sites can offset up to 6% of their annual tax by contributing to environmental bodies under the Landfill Communities Fund. Annual revenues have risen from GBP 400 million in 1997/98 to a peak of GBP 1.2 billion in 2013/14, while revenues in 2015/16 were GBP 900 million (EUR 1 billion). The tax has had a significant impact on the quantity of waste sent to landfill: in 2001/02, 50 million tonnes annually were sent to landfill. In 2015/16, the same figure was around 12 million tonnes.

A consultation exercise with industry was conducted ahead of the introduction of the tax. A key outcome of this consultation was the banding of the tax into inert and non-inert wastes and the change from an ad valorem structure to a weight-based tax. A survey of waste management companies, carried out in order to evaluate the effectiveness of the tax, found that the low level of the tax was one of several barriers to higher effectiveness. This study informed the decision to raise the level of the tax in 1998/99, as well as the introduction of the duty escalator. There are no planned reforms to the tax, but it is believed that the tax could have been more effective with the introduction of a third band for stabilised waste (outputs from mechanical biological treatment plants) and extending the tax to other residual waste disposal, e.g. incineration.

1 Description of the design, scope and effectiveness of the instrument

1.1 Design of the instrument

The design of the tax was preceded by an attempt by the Royal Commission on Environmental Pollution (RCEP) in 1993 to measure the externalities associated with landfill and incineration, after which a consultation took place, which, crucially, changed the tax structure from an *ad valorem* tax to a weight-based tax with two bandings. As such, when introduced in 1996, the tax rate was banded at a standard rate for non-inert wastes (GBP 7 (EUR 5.71) per tonne), and a lower rate (GBP 2 (EUR 1.61) per tonne) for inert wastes specified in the Qualifying Materials Order, such as rocks and soils, ceramics and concrete, furnace slags, etc. (HM Treasury, 1996). After lobbying, exemptions were eventually awarded for wastes from dredging of inland waterways and harbours, mining and quarrying, pet cemeteries and clearance of

[1] All historic currency conversions have been carried out using Eurostat ECU/EUR exchange rates versus national currencies (annual averages) accessed on 27/10/2016 at http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00033&plugin=1

contaminated land, some wastes were shifted from the standard to lower rate (a shift that had significant consequences subsequently). In 1999, the Government announced that the standard rate of tax would rise by GBP 3 (EUR 2) per tonne from 1 April 1999, and then be increased year on year, to give operators clear incentives to improve standards in the industry. Initially this 'duty escalator' was set at GBP 1 (EUR 0.66) per tonne, but was increased to GBP 3 (EUR 2.05) per tonne in 2005, and then to GBP 8 (EUR 5.51) per tonne in 2007 (Seely, 2009). In 2005 the Landfill Allowance Trading Scheme (LATS) was also introduced, involving tradable allowances for biodegradable municipal waste (BMW) to landfill.[2] Following an announcement in Budget 2014, landfill tax rates on or after April 2015 were set to increase in line with inflation based on the Retail Price Index (RPI) rounded to the nearest 5p. Furthermore, there is a floor under the standard rate so that it shall not fall below GBP 80 (EUR 64.49) per tonne from April 2014 to 2020. Accordingly, and as announced in Budget 2015, landfill tax as of April 2016 is charged at a standard rate of GBP 84.40 (EUR 94.21)/tonne, and the lower rate of GBP 2.65 (EUR 2.96)/tonne.

1.2 Drivers and barriers of the instrument

In the early 1990s, the dominance of cheap landfill gave rise to a number of concerns within Government. Principal among these were problems associated with leachate, migration of gas generated through the rotting of putrescible materials, local disamenity and a feeling that simply filling up holes in the ground *ad infinitum* could not be sustained in the longer term. Furthermore the cheapness of landfilling constituted a brake on initiatives designed to make waste producers more aware of the costs of wasted raw materials, since the marginal costs of the disposal of waste were low or zero for many economic actors. The aims of the landfill tax, as stated in the White Paper on Waste in 1995, were:

- To ensure that landfill costs reflect environmental impact thereby encouraging business and consumers, in cost effective and non-regulatory manner, to produce less waste;
- To recover value from more of the waste that is produced; and
- To dispose of less waste in landfill sites.

As the first tax in the UK to have an explicit environmental purpose, the landfill tax was a standalone instrument, with no overt links to other policies. However, implicit links between the landfill tax and the Packaging Waste (Producing Responsibility) Regulations that followed, were established through the creation of a de facto tradable permits scheme. Linkages also exist with the aggregates levy in terms of driving forward environmental performance, particularly recycling, of inert construction and demolition wastes.[3]

There were few if any, barriers to the tax, which some regarded as a rarity. The landfill tax was considered 'a popular tax', which had widespread support among local authorities, NGOs and industry stakeholders. This was especially true given the intentions regarding revenue use (see next Section) to partially offset the cost burden to businesses.

[2] The scheme was made obsolete in 2012/13 as the landfill tax became the key driver of reducing BMW to landfill.
[3] See Eunomia Research & Consulting et al. (2009) International Review of Waste Management Policy: Annexes to Main Report for DoEHLG, Ireland, for more information.

1.3 Revenue collection and use

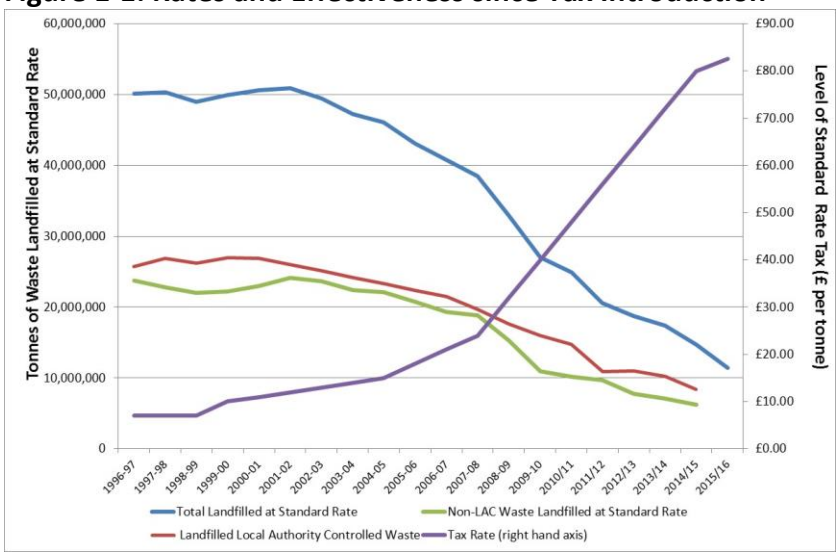
The tax is collected by HM Revenue & Customs (HMRC), which is responsible for its day-to-day administration. The operators of landfills are required to register with the HMRC (which is divided regionally for this purpose) and submit returns quarterly. The owners of multiple landfill sites in different regions need only register once in the region of their choosing. Unfortunately, this has limited the monitoring data available to the operator level, rather than the site level. When first introduced, the tax was supposed to be revenue neutral, however, most now goes to the general budget, whilst some is ring fenced for investment in related environmental bodies.[4] Around 10% of the total revenue from the landfill tax has been channelled to the Landfill Communities Fund between 1996 and 2015 (ENTRUST, no date; HMRC, 2016). HM Customs and Excise (now superseded by HM Revenue and Customs, or HMRC) initially estimated (on the basis of limited statistics at the time) that the tax would generate some GBP 500 million (EUR 414 million) per year, revised to GBP 450 million (EUR 373 million) in November 1995 (Ecotec, 2001). Actual revenue receipts were around GBP 400 million (EUR 277 million) in 1997/98 and this rose steadily to a peak of around GBP 1.2 billion (EUR 1.02 billion) in 2013/14, but has since dropped to around GBP 900 million (EUR 1 billion) in 2015/16 (HMRC, 2016). The variation in revenues is a result of initially increasing rates of taxation, leading to the peak in 2013/14, and then due to the reduction in the amount of waste landfilled, leading to the more recent decline.

1.4 Environmental impacts and effectiveness

In terms of the quantity of waste landfilled, Figure 1-1 depicts the change in the quantity of waste landfilled under the standard rate since the tax's introduction in 1996. It can be seen that between from 1996 to 2003, quantities landfilled stayed relatively stable, after which they have fallen rapidly. The overall reduction in waste landfilled at the standard tax rate has been in the magnitude of some 38 million tonnes – falling from around 50 million tonnes landfilled in 2001-02 to around 12 million tonnes in 2015-16.

[4] The cost to business was to be offset through a reduction in higher rate National Insurance Contributions (NICs) from 10.2% to 10%. In addition, a proportion of tax funds were earmarked for environmental bodies through the Landfill Tax Credit Scheme, under a new organisation named ENTRUST. Initially, operators were entitled to claim a tax credit of 90% for a contribution to an approved environmental body, up to a maximum of 20% of their landfill tax bill in a 12 month period. This was revised in 2003, and under the Landfill Communities Fund, as it is now known, operators may offset up to 6% of their annual tax. Further, the tax has been delinked from the NIC rebate, as the rebate has not increased while the tax has done so steadily to incentivise recycling.

Figure 1-1: Rates and Effectiveness since Tax Introduction



1.5 Other impacts

No other significant impacts have been identified and would be difficult to isolate from other macroeconomic effects due to the relatively small revenue raised by the tax. However, issues with 'landfill tax mining', through creation of tax free zones for sorting, and the possible slightly regressive nature of the tax have been highlighted by experts (Ecotec, 2001). In more recent years the high rate of landfill tax has also resulted in increasing exports of both residual local authority collected (LAC) and commercial and industrial (C&I) wastes as refuse derived fuel (RDF) to take advantage of lower gate fees at European incinerators with spare capacity, particularly in the Netherlands, Sweden and Germany (Eunomia, 2015).

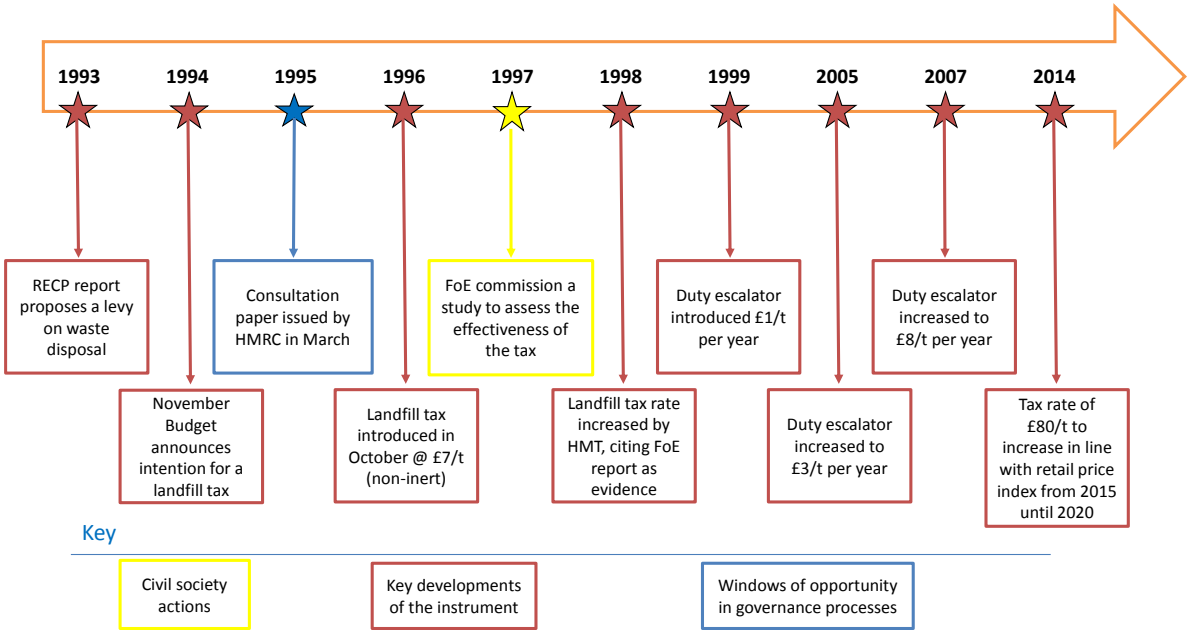
2 Stakeholder engagement

Prior to the implementation of the tax, in 1993, the Royal Commission for Environmental Pollution made a proposal for a levy on waste disposal (RCEP, 1993). This was followed by Coopers and Lybrand's assessment of potential waste management options for the UK following the introduction of such a tax. An intention to introduce the Landfill Tax was then announced in the November 1994 Budget, and, in March 1995, a consultation paper was issued by HM Customs and Excise (now superseded by HM Revenue and Customs, or HMRC). This process elicited the views of some 720 bodies, including industry, environmentalists, and, most significantly, local authorities.

A key process in the development of the tax was the industry consultation carried out to diffuse potential criticisms (Ecotec, 1997). As mentioned earlier, a key outcome of the consultation was the banding of the tax into a standard and non-standard rate for inert and non-inert wastes, and the change of the tax structure from an ad valorem to a weight based tax. After the consultation period, political lobbying continued with specific industries and sectors staking their claims to exemptions from the tax. Some of the lobbying led to some wastes which may technically be regarded as active waste (such as that used for landfill cover) being moved into the lower rate band for 'inert' materials. After introduction of the tax, several other consultations were carried out to review the tax, including a survey on behalf of Friends of the Earth, which interviewed waste management companies, waste producers, local authorities and reviewed environmental bodies in order to identify the barriers to the

effectiveness of the tax. The review found that the low level of the tax, together with the lack of link to specific targets and non-inclusion of incineration for taxation were resulting in low uptake and investment in recycling. This study later informed the decision to raise the level of the tax in 1998/99.

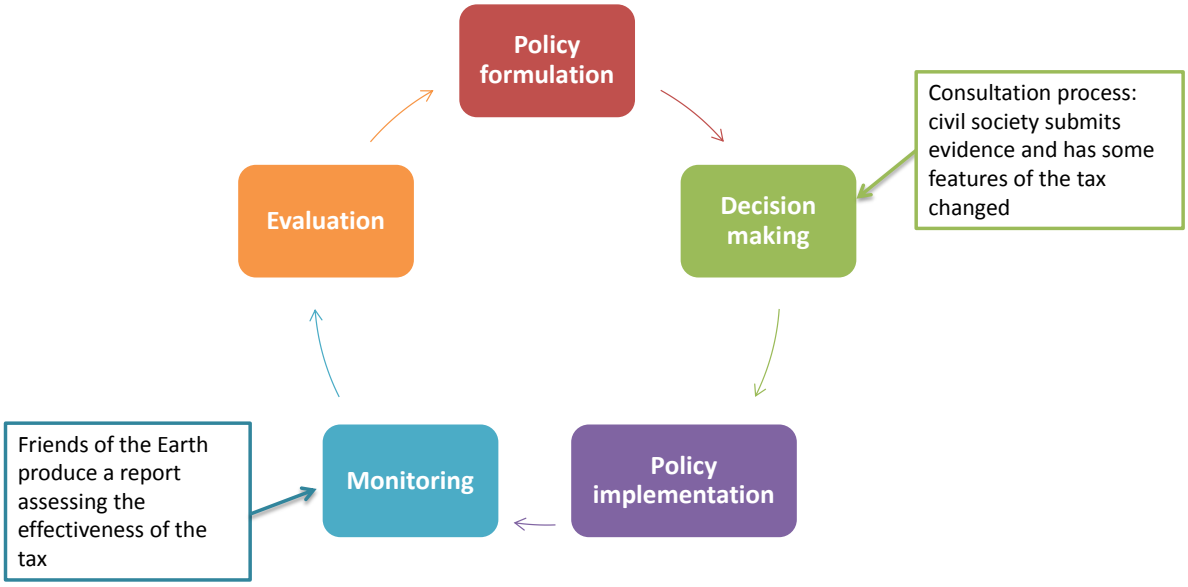
Timeline of key developments in the UK's landfill tax



At the current time there are no upcoming mechanisms for civil society to affect the implementation / design of the tax.

3 Windows of opportunity

Civil society engagement with the UK's landfill tax



4 Insights into future potential/reform

4.1 Actual Planned reforms and stakeholder engagement

There are no formally planned reforms to the tax.

4.2 Suggestions for future reforms – instrument design and civil society engagement

The view of the project team is that some reforms could have been made to the tax (in the UK these may be too late to implement now). These include:

- A lower rate should have been set for stabilised wastes, i.e. outputs from mechanical biological treatment plants. The rationale is that these wastes, because they are biologically stabilised, would generate significantly less greenhouse gases when landfilled than untreated mixed wastes. The lower rate would have decreased the cost of non-thermal treatment options, thereby increasing the capture of material for recycling, leading to associated benefits.
- Extend the tax to other forms of residual waste disposal / treatment – although described as a landfill tax, the most obvious reform of the UK's landfill tax would be to extend the scope to a 'waste tax'. This would increase the cost of other treatment operations, particularly incineration, improving the business case for reuse and recycling.

4.3 Suggestions for replicability

The UK's landfill tax is highly replicable and there are numerous landfill taxes currently in place across the EU. The UK's landfill tax is one of the simpler among these in terms of structure, with just two bandings. However, the process of gradually announcing increases in the rate could be cut short. A realistic level required to stimulate change should be set and announced well in advance, for example €50/t, with an annual escalator set in advance to increase the rate gradually. The rationale for the tax therefore is clearly defined as resulting in changes in the management of waste within the sector, rather than simply internalising the environmental impacts from landfilling itself.

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