National Audit Office

Environmental tax measures

HM Treasury and HM Revenue & Customs

REPORT

by the Comptroller and Auditor General

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Key facts

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taxes HM Revenue & Customs (HMRC) administers with an environmental objective – the Climate Change Levy, Carbon Price Support, Landfill Tax and Aggregates Levy

£3.1bn

revenue generated from the four taxes HMRC administers with an environmental objective in 2019

£31.6bn

revenue generated from fuel duty and Air Passenger Duty in 2019 – the two other taxes HMRC administers with an environmental impact

65% reduction in recorded waste to landfill in the UK between 1997 and 2014 following the introduction of Landfill Tax

£275 million HMRC-published estimate of the gap between Landfill Tax due in 2018-19 and the tax collected (gap was 28% of tax due)

£6 million estimated cost of staff managing and designing environmental taxes in 2020

8 tax reliefs for 2020-21 with environmental objectives, the largest of which had an estimated cost of £70 million in 2019-20

£17 billion total estimated 2019-20 cost for five large tax reliefs which do not have environmental objectives but are likely to impact on the government's net zero greenhouse gas emissions target

Summary

Introduction

1 The government has set ambitious environmental objectives. In June 2019, the UK passed a law committing to bring all greenhouse gas emissions to net zero by 2050. More broadly, the government's *25 Year Environment Plan*, published in 2018, set out an ambition "to leave that [natural] environment in a better state than we found it".

2 Tax measures have been an important tool in implementing environmental policy, by taxing goods or services which harm the environment and incentivising businesses and people to change their behaviour. For example, in 1996 Landfill Tax was introduced to encourage the waste management industry to switch to more environmentally friendly alternatives. Government can also use other policy tools such as regulation and spending to achieve environmental objectives, and in practice a combination of these tools may be most effective.

3 Within government, the Department for Environment, Food & Rural Affairs (Defra) has lead responsibility for all environmental policy areas apart from climate change mitigation (including net zero emissions), on which the Department for Business, Energy & Industrial Strategy (BEIS) leads. Decisions on the use of taxes to pursue policy objectives are a matter for ministers. Where ministers decide to use tax measures to support environmental goals, HM Treasury and HM Revenue & Customs (the exchequer departments) are responsible for designing the measures to achieve objectives set by ministers, and for monitoring and evaluating their impact. HM Treasury is responsible for the strategic oversight of the tax system and HM Revenue & Customs (HMRC) is responsible for administering the system. The exchequer departments are expected to consider the government's overall environmental objectives when undertaking their work.

4 HM Treasury and HMRC administer four taxes with explicit environmental objectives (referred to as environmental taxes throughout this report).

- Climate Change Levy – a tax collected by energy suppliers and paid by businesses and the public sector to encourage them to become more energy-efficient and thereby reduce greenhouse gas emissions.
- Carbon Price Support – aims to drive electricity generators to invest in low-carbon electricity by increasing the cost of the fossil fuels they use. The Climate Change Levy and Carbon Price Support raised £2.1 billion in 2019.
- Landfill Tax – a tax on landfill operators to divert waste from landfill to other less harmful methods of waste management (raised £0.6 billion in 2019).
- Aggregates Levy – a tax to encourage the use of recycled materials over the extraction of rock, sand and gravel which can damage the environment (raised £0.4 billion in 2019, including from quarry operators).

5 Other HMRC-administered tax measures can also affect the environment. In particular:

- two taxes whose primary purpose is to raise revenue – fuel duty and Air Passenger Duty – may contribute to government's commitment to reduce CO_2 emissions and improve air quality;
- some tax reliefs have an environmental purpose and reduce the amount of tax due on non-environmental taxes when taxpayers use some environmentally friendly products or services such as low-carbon vehicles and installation of energy-saving products; and
- tax reliefs introduced for other purposes. For example, VAT is charged at a lower rate of 5% on domestic fuel and power.

6 Environmental taxes may have a larger role to play in the future in view of the government's environmental goals, but this will depend on ministerial decisions. The government is planning to introduce a fifth environmental tax – the Plastic Packaging Tax – in April 2022. HM Treasury is conducting a review into how the UK's transition to a net zero economy should be funded and is due to issue the final report in 2021. The terms of reference for the review set out that the government will consider a full range of levers, including tax.

The purpose and scope of this report

7 This report examines how HM Treasury and HMRC manage tax measures with environmental objectives, including the work undertaken to design, monitor and evaluate them. It also explores how the exchequer departments use their resources to manage the relationship between the wider tax system and the government's environmental goals, including its statutory commitment for the UK to achieve net zero greenhouse gas emissions by 2050.

8 Under section 6 of the National Audit Act 1983, the Comptroller and Auditor General examines the economy, efficiency and effectiveness of the way that government departments use their resources in discharging their functions, including the management of taxes. Our assessment in this report is informed by deep dives into how the exchequer departments used their resources to administer and oversee two established environmental taxes – the Climate Change Levy and the Landfill Tax – and their approach to designing the Plastic Packaging Tax. It is not our role to assess the value for money of specific environmental tax measures or to comment on the merits of objectives set by ministers.

Key findings

Designing, administering and monitoring environmental taxes

9 Environmental taxes raise design, monitoring and review challenges because they have policy objectives beyond just raising revenue. The exchequer departments have set out tax-making policy principles for all taxes. Government's *The Green Book* requires departments to consider the design, monitoring and evaluation of tax measures, including how their impact on policy objectives can be assessed. An environmental tax can be more complicated to design because it is seeking to change behaviour, and the impact more difficult to evaluate, particularly where it overlaps with other interventions. Each exchequer department has a team to administer all four environmental taxes together, which has facilitated learning (paragraphs 1.8 to 1.10 and 1.33).

10 The design of environmental taxes follows many practices we would expect but the exchequer departments do not quantify all potential costs before recommending options. In line with expected practice, the exchequer departments provide taxpayers with several years' advance warning of measures so that they can prepare. The exchequer departments consult with stakeholders and consider compliance risks and practical implementation issues. For the new Plastic Packaging Tax, we found the departments had undertaken extensive work to understand the possible impacts of the tax, but they had not quantified the administrative costs for business. They considered which option would best balance the policy objective against the administrative burden for business and HMRC, based on research, business feedback and their experience. The exchequer departments told us it was inherently difficult to estimate taxpayers' administrative costs before introducing a new tax (paragraphs 1.11 to 1.14, and Figures 4 and 5).

11 The exchequer departments do not specify how they will measure the impact of environmental tax measures. The Chancellor of the Exchequer's speech at Budget 2020 announced the Plastic Packaging Tax would increase the use of recycled plastic in packaging by 40% – equal to carbon savings of nearly 200,000 tonnes. However, the exchequer departments did not set these as measures of success in the Tax Information and Impact Note (TIIN). More generally, we found that published TIINs for changes to environmental taxes – such as revisions to Climate Change Levy rates – briefly described but rarely quantified the environmental impact. Setting out clear metrics in TIINs, for example on carbon emissions or the production of new plastic, would assist Parliamentary scrutiny (paragraphs 1.12, 1.15 and 1.16, and Figure 4).

12 HMRC recognises it has a partial understanding of the gap between tax due and collected. HMRC's core objectives include to collect tax revenue due, and it monitors receipts on all environmental taxes. However, HMRC only has a standalone estimate of the tax gap for Landfill Tax. The other three environmental taxes are included within an illustrative tax gap estimate covering seven taxes in total. In August 2020 HMRC developed a single compliance strategy for the four environmental taxes. The strategy reflects that HMRC's work to date had focused on Landfill Tax, where it believes the risk to revenue is greatest, and that there are gaps in its understanding of the other three environmental taxes (paragraphs 1.18 to 1.24).

13 Landfill Tax has reduced the use of landfill sites significantly, but it has also incentivised more illegal waste disposal. Between 1998 and 2014 HM Treasury increased the standard rate of Landfill Tax by 700% in real terms. The increase contributed to a 65% fall in total waste to landfill by 2014, and a doubling of tax revenue. However, higher rates also incentivised the disposal of waste in environmentally harmful ways to evade tax. HMRC estimates that the misclassification of waste at authorised landfill sites and waste disposed at unauthorised sites reduced Landfill Tax revenue by around £275 million in 2018-19 (28% of the tax due). This figure does not include any tax lost from illegal exports of waste and fly-tipping. HMRC has sought to reduce tax lost by increasing its compliance resource, extending Landfill Tax so it is due on waste disposed at unauthorised sites and working more closely with other public bodies. Most recently, in 2020, government established the Joint Unit on Waste Crime in the Environment Agency, in partnership with HMRC, the National Crime Agency and others, to tackle organised waste crime (paragraphs 1.23 and 1.24, and Case Study 1).

14 HMRC's approach to evaluation provides it with limited insight into the environmental impact of taxes. HMRC has formally evaluated the impact of one environmental tax. This qualitative research, published in 2014, found that Landfill Tax had been a driver for the fall in demand for landfill. HMRC has not carried out further evaluations of the impact of environmental taxes. Instead it uses environmental data collected by third parties, feedback from stakeholders and tax receipts to assess impacts and advise ministers. This information can provide some indication of environmental impact, but it will rarely be sufficient to determine how far an environmental tax has changed behaviour. For example, BEIS statistics on energy use indicate much greater use of renewable energy in electricity generation and businesses improving their energy efficiency, but it is difficult to separate the effect of the taxes from other factors. In addition, the impact of the Aggregates Levy on the use of recycled aggregate cannot be determined from the data HMRC has collected. HMRC considers its approach to evaluation is proportionate given limited resources, methodological challenges, and because it considers that taxing environmentally harmful activity is an efficient way to raise revenue (paragraphs 1.26 to 1.35).

Managing the relationship between the wider tax system and the government's environmental goals

15 There are other taxes which the exchequer departments manage which they acknowledge have an impact on the environment. The Office for National Statistics' data show that taxes and charges on environmentally harmful goods and services raised £51.6 billion in 2019. Fuel duty raised £27.8 billion, just over half of the total. The next largest components were vehicle duties (£7.1 billion, mainly Vehicle Excise Duty, which is administered by the Driver & Vehicle Licensing Agency), Renewable Energy Obligations administered by Ofgem (£6.1 billion), and Air Passenger Duty (£3.8 billion). Neither fuel duty nor Air Passenger Duty has an explicit environmental objective set by ministers and they are therefore not managed as environmental taxes by the exchequer departments. The departments told us that they primarily measure the performance of these taxes in terms of tax revenue raised but they increasingly consider environmental impact when advising ministers. For example, HM Treasury acknowledged the environmental impact of fuel duty in 2020, when the government announced changes to fuel duty on diesel used in off-road vehicles (paragraphs 2.5, 2.6 and 2.13).

16 **HMRC has limited information on the cost and impact of tax reliefs with an environmental impact.** Given the government's environmental ambitions, in particular its binding net zero target, it is important that policy interventions which impact on the environment are identified and understood. Tax reliefs, as well as taxes, can have an environmental impact. While HMRC does not maintain a list of tax reliefs with specific environmental objectives, we identified eight such reliefs. The largest relief with a cost estimate is the lower rate of VAT for the installation of energy-saving equipment (£70 million in 2019-20), while four reliefs have not been costed. HMRC has not attempted to identify other tax reliefs which could impact on government's environmental goals, as it has focused on managing reliefs to deliver their stated purpose. Of the 25 tax reliefs that cost more than £1 billion a year, we identified five that are likely to reduce the cost of producing or consuming products made from or using fossil fuels, including lower VAT on domestic fuel and power. The five reliefs support other government policy objectives, such as helping to address fuel poverty. The total estimated cost of these reliefs was £17 billion in 2019-20 (paragraphs 2.7 to 2.13).

17 **The exchequer departments do not centrally oversee how the tax system impacts on government's environmental goals.** There are some good examples where planned new taxes and changes to existing tax measures were considered in environmental strategies developed by Defra and BEIS. But the different routes for announcing tax, regulation and spending decisions make government-wide approaches challenging to develop, and there is a need for coherence across the tax system as a whole. The strategies for clean air and clean growth did not consider all the existing taxes we would expect. While the exchequer departments work with the departments who lead on environmental strategies, they do not plot the role of the tax system in helping government achieve each of its environmental objectives or set out the interaction between the tax system and other policy tools (paragraphs 2.14 to 2.16).

18 **HM Treasury's review into how the transition to a net zero economy will be funded is an important component in implementing government's environmental commitments.** Achieving ambitious environmental goals will require structural shifts across the economy and the exchequer departments will need to actively consider the consequences for the tax system. Environmental policies may impact significantly on existing revenue streams, such as fuel duty. The December 2020 interim report from HM Treasury's review highlights that tax, regulation and spending are all important tools to correct market failures. It also sets out the fiscal implications of likely changes in the structure of the economy. The final report, due in 2021, will look in more detail at areas including how HM Treasury could incorporate climate considerations into fiscal events and spending reviews and how to embed the principles of the review into policy-making across government. The exchequer departments told us they will also look at the impact of other relevant tax measures which do not necessarily have the environment as a core objective, and the role carbon pricing could play in shifting business models and incentivising investment in low-carbon technologies across the economy. Alongside HM Treasury's review, BEIS is developing government's wider net zero strategy. The exchequer departments plan to work with BEIS and other stakeholders during development of the strategy to consider the mix of policy levers needed to meet net zero (paragraphs 2.17 to 2.23).

Conclusion

19 There is some evidence of the positive impact that taxes can have on the environment, but too little is known about their effect. The exchequer departments tend to focus more on the revenue that environmental taxes raise rather than the environmental impact they achieve. There are other measures – both taxes and tax reliefs – which impact on government's wider environmental objectives but which are not recognised as environmental in nature. As such, the exchequer departments do little to identify these measures, or assess their relevance to government's environmental goals, though they do consider environmental impact in some significant cases when advising ministers.

20 The scale of government's environmental ambitions, particularly on net zero, means government needs to consider every tool at its disposal if it is to succeed. The exchequer departments need to fully understand the relationship between existing taxes and these ambitions, to ensure the taxes contribute as intended, and to learn lessons for any future taxes which may support wider environmental strategies. HM Treasury's review of how the transition to net zero will be funded is an important first step in this process.

Recommendations

21 As custodians of the tax system, HMRC and HM Treasury are responsible for designing, monitoring and evaluating taxes, as well as ensuring they support government's wider objectives, including the environment, and raise revenue. We recommend that the exchequer departments should:

a **identify and monitor existing tax measures with a significant environmental impact.** In doing so, they should consider the likely scale of the environmental impact (which may not be reflected in the revenue raised by a tax or the cost of a tax relief) and the level of monitoring that is appropriate. Where necessary, HMRC should work with other government departments to determine how tax measures can be monitored cost-effectively and proportionately;

b **clarify and set down their approach to designing, administering and evaluating tax measures with environmental or other policy objectives.** The exchequer departments should build on existing work and formalise in tax policy-making and other relevant guidance the practical steps that their teams should take to comply with wider government guidance (such as *The Green Book* on appraisal and evaluation), including:

- establishing how the success of tax measures will be assessed against the policy objective and tax revenue; and
- monitoring impact, as well as revenue, by collecting and reporting data on the level of compliance and environmental outcomes;

c **develop clear criteria for prioritising which taxes with an impact on the environment to evaluate, taking into account risks to value for money and the costs of evaluation**. Criteria could include the amount of tax revenue, the scale of the environmental impact expected, whether the tax is new, the extent of existing information and the risk of unwanted behavioural responses to the tax (such as environmentally harmful actions). The exchequer departments should consider value for money in determining how to review whether environmental taxes are fulfilling their objectives. They should consider the adequacy of existing evidence sources to support clear conclusions, and the cost of generating evidence to cover gaps. The exchequer departments should document their approach and findings from evaluations of environmental tax measures;

d **quantify and publish the expected environmental impact of changes to taxes, where significant.** This includes, for example, publishing the expected impact on CO_2 emissions and use of plastic. They should monitor and report the actual impact of those changes over time. Where a decision is made not to publish information on the environmental impact of tax changes, this should be made explicit in Tax Information and Impact Notes;

e **work with other departments to make visible how existing tax measures affect environmental goals.** The exchequer departments should ensure the need to announce tax measures in the Budget does not act as a barrier to working with other departments to present an integrated picture of what tools are being used to deliver government's environmental goals. The exchequer departments should look to ensure the role of tax continues to be considered in strategies for environmental goals such as net zero and waste; and

f **monitor the long-term impact of government's environmental goals on tax revenue and ensure these are considered as part of risk management.** This would include estimating, and reviewing when necessary, the impact on taxes of structural shifts in the economy. In doing so, the exchequer departments should build on both the risks set out by the Office for Budget Responsibility in its fiscal risk report and HM Treasury insights gathered in reviewing how the transition to net zero will be funded.