Office for **Budget Responsibility**

Working paper No.8
Anti-avoidance costings: an evaluation

Surjinder Johal & João Sousa January 2016

Anti-avoidance costings: an evaluation

Surjinder Johal and João Sousa

Office for Budget Responsibility

Abstract

Since 2010 the government has announced a large number of policy measures aimed at reducing the level of tax avoidance and evasion and to enhance the compliance performance of Her Majesty's Revenue & Customs. These measures have been one of the Government's preferred sources of revenue-raising in recent Budgets and Autumn Statements and costing these types of measures is typically subject to considerable uncertainty. This paper reports on the performance of 59 measures announced and implemented between 2010 and 2015. We find that the yield from the majority of measures is reasonably close to the original estimate, but there are more under-performing measures than over-performing ones. We also find that costings have, on average, underestimated the amount of time that it would take before a measure becomes fully effective.

We would like to thank analysts from HMRC for their assistance with this evaluation and also colleagues at the Office for Budget Responsibility.

Contents

Chapter 1	Introduction	1
Chapter 2	Methodological approach	4
Chapter 3	Results of our evaluations	7
Chapter 4	Lessons learned and next steps2	2
Annex A	List of evaluated measures2	4

1 Introduction

The OBR and the costings process

- 1.1 The Office for Budget Responsibility (OBR) was created in 2010 to provide independent and authoritative analysis of the UK's public finances. To that end we produce two 5-year-ahead forecasts for the economy and the public finances each year, alongside the Budget and Autumn Statement. In each of these forecasts we need to estimate and explain the likely fiscal impact of any newly announced tax and spending policies.
- 1.2 Although we are ultimately interested in the aggregate impact of all the policies announced in each statement on the public finances, in the interest of transparency it is helpful to show the impact of individual measures. Alongside each statement the Treasury publishes a 'scorecard' showing the impact of particular measures on public sector net borrowing. Under the *Charter for Budget Responsibility*, the Treasury is free to decide which measures to include in the scorecard and what costs or yields to attribute to them. In practice it does so after a detailed process of scrutiny and discussion with the OBR and the department responsible for implementing the policy (primarily HM Revenue and Customs (HMRC) for tax changes and the Department for Work and Pensions (DWP) for welfare measures).
- 1.3 The policy costing will include the static impact of the policy (i.e. the impact we would see in the absence of any resulting change in behaviour), plus the direct impact of 'first round' behavioural effects. An example of this is an increase in an existing duty rate: the static costing takes the current level of consumption (the tax base) as fixed and applies the duty increase; but typically individuals respond to a price rise by lowering their consumption and this is captured as a behavioural effect in the final costing.
- 1.4 Once we deem a costing to be reasonable and central it is given a formal certification; at each fiscal event, we publicly state whether we believe that each of the Treasury's published costings are reasonable and central. This is normally done in Annex A of our Economic and fiscal outlook (EFO), which is reproduced in the Treasury's Policy costings document.¹
- 1.5 We then incorporate these costings (or, if we disagreed with the Treasury's published scorecard, our preferred ones something we have not yet found necessary) in our forecasts, together with the impact of any relevant policy measures that the Treasury may have omitted from the scorecard. We also take into account broader 'second round' macro-level behavioural effects resulting from individual policies or the policy package as a whole. In doing so, our goal is to end up with the best forecast for the public finances that we can, given the information available, incorporating the expected impact of all announced policy

¹ More information on the costings process and costings methodology is presented in our Briefing Paper No.6: Policy costings and our forecast, available on our website.

decisions. We do not include the effect of policy goals or ambitions for which the Government has yet to decide precisely how it intends to achieve those ambitions; instead we note those as fiscal risks to the forecast, as required by the Charter.

- 1.6 Policy costings therefore feed directly into our forecasts. They provide an essential basis for understanding the fiscal implications of policy decisions. In order to be transparent about the potential risks to our forecasts, we assign each certified costing a subjective uncertainty rating. These are assessed across three criteria: the quality of the data underpinning the costing; the complexity of the modelling approach; and the possible behavioural response to the policy change. Our uncertainty ratings can be found in Annex A of each EFO, with the detailed breakdown of how we arrive at the judgements available on our website.
- 1.7 Estimates of tax revenue from anti-avoidance measures tend to be more uncertain than other measures since they target specific subsets of taxpayers who are already actively changing their behaviour in order to lower their tax liabilities. As a result, there is usually relatively high behavioural uncertainty. Similarly, since the measures are directed at uncollected tax, there is usually less reliable data available.
- 1.8 Chart 1.1 confirms that since we began assigning an uncertainty rating to every scorecard measure in December 2014, the types of measures covered by this evaluation have typically received a higher rating than other measures. The first two sets of bars show the ratings for anti-avoidance measures more often than not these are given one of our three highest uncertainty ratings (very high, high or medium-high, grouped as 'high' for this chart). The opposite is true for other measures, displayed in the third and fourth sets of bars typically these measures are assigned one of our three lowest ratings (low, medium-low and medium, grouped as 'low' for this chart).
- 1.9 It is important to remember that each certified measure represents our central estimate of the costing, regardless of the level of uncertainty: there remains a 50 per cent chance that the measure saves or costs more and a 50 per cent chance that it saves or costs less. Others of course may differ in their views of the central estimate or degree of uncertainty around it, with the scope for different views likely to be greater for more uncertain costings.
- 1.10 While we are labelling this an evaluation of anti-avoidance costings, we have broadened it to cover wider HMRC operational activity. This brings into scope measures where HMRC is expecting to increase tax revenue through additional compliance resources or enforcement powers. On the welfare spending side, we have also included measures where HMRC is expecting to make savings from compliance or enforcement actions within the tax credit and child benefit systems that are administered by HMRC. We typically assign a lower uncertainty rating to these types of welfare measures as the quality of data is higher and the behavioural response is more limited.

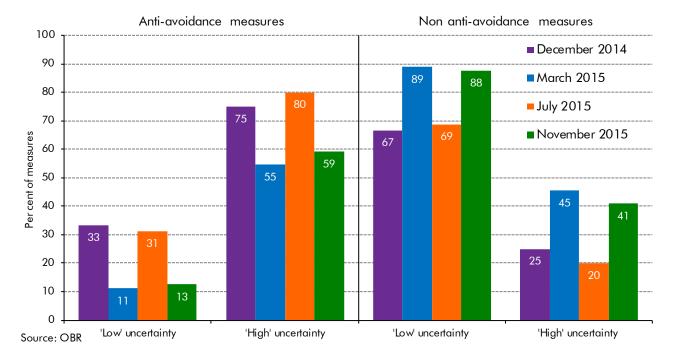


Chart 1.1: Uncertainty ratings for anti-avoidance measures

Reasons to evaluate

- 1.11 The OBR's remit includes a requirement to assess the performance of its forecasts. We do this annually in our Forecast evaluation report (FER), where we compare the latest outturn data for the economy and public finances to our earlier forecasts and try to explain the differences and identify any lessons that can be applied to future forecasts. The same rationale can be applied to policy costings.
- 1.12 There has been specific interest in evaluating anti-avoidance policy measures from the Treasury Select Committee (TSC). In its report on Autumn Statement 2013, the TSC recommended that "the OBR should do all it can to report on whether yields [from antiavoidance measures] were attained as originally costed."
- 1.13 Until a policy has been implemented, we routinely update the costing in each forecast. Once it has been implemented, we tend not to re-cost policies because their impact is captured in the forecast baseline as they become operative and generate outturn data. With the stock of past policy measures ever-growing – close to 700 since the OBR's formation – it is also not practical to look back at all measures routinely. However, one area where we now conduct annual evaluations is the performance of anti-avoidance and operational measures announced and implemented by HMRC. As these types of measures are inherently uncertain, there is more value to be gained from evaluating their effectiveness on a more systematic basis. The lessons we learn can then help inform judgements on similar measures in the future.

2 Methodological approach

Introduction

- 2.1 Our approach to evaluating the costing of anti-avoidance and operational measures is similar to the approach we take to the evaluation of forecast errors in our annual *FER*. Our main objective is to identify errors in costings, understand why they occurred and apply the lessons we learn when similar issues arise in future costings.
- 2.2 One key difference to the *FER* is the level of granularity required to understand errors in costings compared to errors in forecasts. While the focus here is narrower, there is often insufficient good quality information to allow us to decompose changes to a costing as we do with a forecast. This is especially true for those measures that are still at a relatively early stage of implementation. For a number of measures in this evaluation we have had to rely on the operational intelligence of HMRC tax officials to assess whether a policy has had the expected effect on the public finances.

Costing models

- 2.3 Policy costings are generated from a large number of models that are typically owned and maintained by the individual department responsible for the measure. For the purposes of this evaluation, the estimates are all generated from HMRC costing models. Models that are regularly used for policy costings are put through a scrutiny process before being approved for use at a fiscal event. When HMRC proposes a significant change to a model for example to reflect new research it typically presents the updated model to us for approval ahead of a fiscal event.
- 2.4 In assessing the performance of a costing model, we use a similar approach and criteria to those we set out for assessing fiscal forecasting models in Box 4.1 of our October 2015 FER. These include:
 - accuracy how well does the model match outturns?
 - plausibility how well do the model outputs align with theory and experience?
 - transparency how easily can the model outputs be understood and scrutinised?; and
 - effectiveness how well does the model capture the tax or benefit system?
- 2.5 Costings for anti-avoidance measures often rely on bespoke models that, due to the nature of the activity being modelled, might not perform well against some of these criteria, mainly

due to poor data availability and/or behavioural uncertainty. Transparency might also be affected for very narrowly focused measures where we are unable to see the underlying data due to restrictions around taxpayer confidentiality.

Types of measures

- 2.6 There are two types of measures that we have evaluated:
 - **anti-avoidance** these are measures providing HMRC with enhanced legislative powers to tackle tax avoidance or evasion. One example is the 'onshore employment intermediaries' measure in Autumn Statement 2013, which sought to prevent people using intermediaries to make false claims of self-employed status to avoid PAYE income tax; and
 - **operational** these measures typically involve enhanced HMRC enforcement and compliance activity, often through additional resources or access to better information. Examples include the various offshore tax agreements entered into between January 2013 and January 2016 these provide HMRC with new information that they can use to better target tax evasion. Some operational measures focus on reducing tax credits error and fraud or improving collection of tax credits debt. An example here is 'error and fraud additional capacity', which brought in private sector support for HMRC compliance activity.

Approaches to evaluation

- 2.7 One of the main difficulties with evaluating any policy costing after the event is knowing what would have happened in the absence of the policy (the 'counterfactual'). Estimating the counterfactual is not easy, since it is a measure of something that cannot be observed. But, if it can be estimated with reasonable confidence, its inclusion strengthens an evaluation's results. In some cases statistical techniques can be used to estimate the counterfactual, but for many anti-avoidance measures there is insufficient detail in the underlying data to allow them to be used. Furthermore, the fact that the Government has introduced several overlapping measures across a number of Budgets and Autumn Statements makes it very difficult to isolate the effects of any single measure.
- 2.8 As a result, most of the evaluations summarised here are not based on estimating a counterfactual. Instead we rely on HMRC operational intelligence, the monitoring of tax receipts and re-estimating the original costings with updated assumptions and economic determinants. The different methodological approaches we have taken are defined below. The evaluation of a single measure may use more than one of these approaches:
 - **operational intelligence** this approach relies on consulting with HMRC's operational officials, who are able to observe the taxpayers targeted by a specific measure, and HMRC policy officials, who have detailed knowledge of the measures' intent and effectiveness. This type of evaluation is most appropriate when the measure relates to

a targeted intervention or a change that would be difficult to identify in aggregate receipts. It is also useful in cases where the data are disclosive;

- **monitoring of outturn data** this approach is appropriate for measures that generate accurate, disaggregated, outturn data. Examples include operational measures where the number of notices issued can be monitored or the amount of tax credits debt collected by a private contractor can be measured. It could also apply to a measure that creates a new tax or spending category that can be monitored separately, as with the 'annual tax on enveloped dwellings' (ATED). Although these evaluations are more data-driven, they do not use a counterfactual, and so may need further detail to explain changes from the original costing;
- **re-estimation of costings** this approach re-estimates the original costing to reflect initial outturn data, more recent economic and fiscal forecasts and updated evidence on modelling assumptions. These evaluations might be appropriate in cases where the measure has not been in place for very long and/or there have been significant changes to the key parameters. For example, the costing for a measure seeking to raise additional corporation tax receipts would be affected by unrelated changes in the profitability of companies;
- **empirical evaluations** this approach estimates a counterfactual and attempts to isolate the policy impact, including behavioural effects. Such evaluations often make use of econometric techniques to identify causality. As described above, this approach requires high quality data and the ability to separate the specific measure from others. These challenges mean we are not able to use this approach very often.

What we are not evaluating

- 2.9 Consistent with the remit set for us by Parliament, our interest is strictly limited to establishing the actual impact of anti-avoidance measures on the public finances – compared to the original costing – and the lessons we can apply to future costings to improve the accuracy of our forecast. We do not evaluate whether the policy was efficiently delivered, whether it met all the stated objectives, whether there were any wider effects or whether it provided 'value for money'.
- 2.10 Table A.1 in the Annex presents the full list of published measures with their original costings. Note that the number of measures listed in Table A.1 is less than the actual number of costings we have evaluated. This is due to the fact that costings for different measures are often combined into a single line on the published scorecard. For example the Autumn Statement 2012 measure 'HMRC: anti-avoidance' was actually made up of 6 separate costing notes, so we evaluated these on a consistent, note-by-note basis.

3 Results of our evaluations

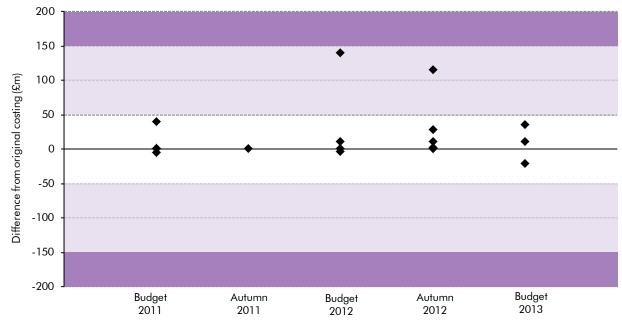
Introduction

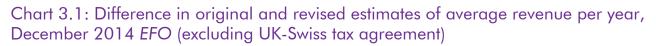
3.1 In this chapter we summarise the results of evaluations of avoidance costings that we have published in successive *Economic and fiscal outlooks* (*EFOs*) and discuss in greater detail the evidence on costings that have deviated most significantly from the original estimates.

Total receipts compared to original costings

- 3.2 In Box 4.3 of our December 2013 Economic and fiscal outlook (EFO), we detailed the shortfall in receipts from the UK-Swiss tax agreement. The original costing in December 2012 significantly overestimated receipts from the capital tax element (i.e. the tax due on past activity). At the time we stressed that "the estimated revenue raised by this measure is highly uncertain as there is little hard information about the value of UK individuals' financial assets in Switzerland, and how these individuals will respond to the policy".
- 3.3 In Box 4.2 of our December 2014 *EFO*, we discussed the results of a more comprehensive evaluation exercise of 22 anti-avoidance measures announced between 2010 and 2014. In Annex A of our November 2015 *EFO*, we revisited any measures for which there was new information and also considered 37 additional measures.
- 3.4 In the December 2014 evaluation, we reported that "our review of material related to past anti-avoidance costings suggests that the performance of these measures has been mixed, with some yielding more and some yielding less than expected. In absolute terms, across all of the measures reviewed, the large shortfall on the UK-Swiss tax agreement means that significantly less has been raised in total than originally expected."
- 3.5 Chart 3.1 presents the results from the 2014 evaluation, excluding the UK-Swiss tax agreement. For each measure we plot the difference between the average yield each year from the original costing and the average yield each year from the current estimate. The chart shows that most measures are within £50 million of the original estimate either way. More measures have outperformed the original costing, including two for which the yield was underestimated by over £100 million a year. The costings that have changed the most are discussed later.

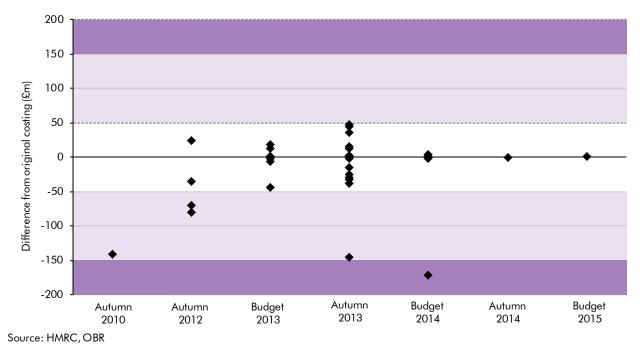
Results of our evaluations





Source: HMRC, OBR

- 3.6 For the 2015 evaluation we did not focus on measures that were evaluated in 2014, except for a small number of cases where new information was available e.g. the measure on tax repatriation from Jersey, Guernsey and the Isle of Man and two operational tax credits debt measures. We did however broaden the scope of the evaluation to include the Spending Review 2010 operational measure 'using real-time PAYE information to inform tax credits calculations' that HMRC has now implemented and started to collect outturn data. In total, 40 measures announced in the previous five years were evaluated in 2015.
- 3.7 Chart 3.2 presents the results from the 2015 evaluation. Again, for each measure we plot the difference between the average yield each year from the original costing and the average yield each year from the revised estimate. The chart shows that most measures are within £50 million of the original estimate either way, but that there have been five measures where the average yield is lower by more than £50 million a year. These five are discussed in the following section. Unlike the measures covered in the 2014 evaluation shown in Chart 3.1, none of these measures have outperformed the original costing by more than £50 million.





HMRC compliance

3.8 Since 2010, HMRC has introduced a number of measures targeting fraud detection and debt collection. We looked at 14 debt collection measures announced and implemented since then, which showed that there have been both under- and over-estimates. The Autumn Statement 2012 measure 'expanding debt collection capacity', part of the 'HMRC: anti-avoidance' package significantly underestimated savings. However, the two large measures described below – 'real-time information' and 'error and fraud additional capacity' – have resulted in significantly lower savings than originally expected. It is too early to evaluate the large package of measures announced in the July 2015 Budget, but these will be monitored and reported on as information becomes available.

Costings that have changed the most

3.9 This section presents more detail on the most significant under- and over-performing measures. It shows the different steps in the methodology from the original costing, as well as a summary of the underlying data, behaviour and modelling uncertainty at the time. The uncertainty ratings presented for the measures in this section are consistent with the approach we now use in Annex A of each *EFO*. These ratings are done retrospectively, as we only began presenting these from December 2014. Most of the measures in this section were highlighted as particularly uncertain when the original costing was made.

Tax repatriation from Switzerland

3.10 The UK-Swiss tax agreement was announced at Autumn Statement 2012 and consisted of a one-off payment covering tax liabilities between 2003 and 2012, plus a future withholding tax from 2013 onwards. The original costing was £5.3 billion from 2012-13 to 2017-18. £4.4 billion of this related to past liabilities and £0.9 billion related to the future withholding tax. This is at the lower end of the initial HMRC estimate of £4 billion to £7 billion. Of the £4.4 billion related to past liabilities, £3.2 billion was estimated to come directly from the newly created Swiss capital tax with the remainder disclosed via other means, most notably through the Liechtenstein Disclosure Facility (LDF) or directly to HMRC. Figure 3.1 shows the methodology from the original costing.

Figure 3.1: 'Tax repatriation from Switzerland': original methodology

Modelling steps for the capital tax include:

Step 1

An initial payment from Switzerland of CHF 500 million.

Step 2

Generate an estimate for taxable funds from the BCG gross estimate using assumptions.

Step 3

Convert funds into Sterling using exchange rate forecast then grow using 5 year GDP forecast and bank deposit growth.

Step 4

Apply tax rate set by negotiated formula.

Step 5 Make behavioural adjustments.

Modelling steps for the withholding tax include:

Step 6

Deduct funds caught by the capital tax then estimate future returns from balance of payments data.

Step 7

Apply tax rates for non-dividend income, dividend income and capital gains. Estimate the inheritance tax effect for beneficial owners that have died.

For both the capital tax and with withholding tax:

Step 8

Further deductions to allow for identification failure and the compliance yield HMRC would recover without the measure.

Step 9

Profile the yield across the forecast period.

Overall

Only indirectly relevant data, little information on the scale of the behavioural effects and a multi-stage modelling process meant that every element of this costing was uncertain. Behavioural effects reduce costing by around 55 per cent.

Data

- no reliable estimate of the tax base poor data
- Boston Consulting Group estimated funds across Western Europe in 2011
- anecdotal estimates from HMRC and Swiss authorities
- Datamonitor estimate on bank deposits in Switzerland in 2003
- HMRC intelligence used to estimate share of total funds affected by the measure

Uncertainty rating: very high

Behaviour

- some move funds to other offshore territories
- some disclose to HMRC
- some disclose through LDF
- some keep their funds in Switzerland
- attrition to reflect declining UK funds in Switzerland over time

Uncertainty rating: very high

Modelling

- significant modelling challenges
- multiple stages and high sensitivity on a range of unverifiable assumptions

Uncertainty rating: very high

3.12 Chart 3.3 shows the estimate from the original costing of the capital tax element in December 2012 and the re-costing at each subsequent Autumn Statement. The current estimate of the capital tax, which we do not expect to change significantly, is £875 million, compared to the original costing of £3.2 billion. Following an Office for National Statistics decision, all payments received against this tax are accrued back to 2013-14 in the National Accounts, regardless of when the cash is received.

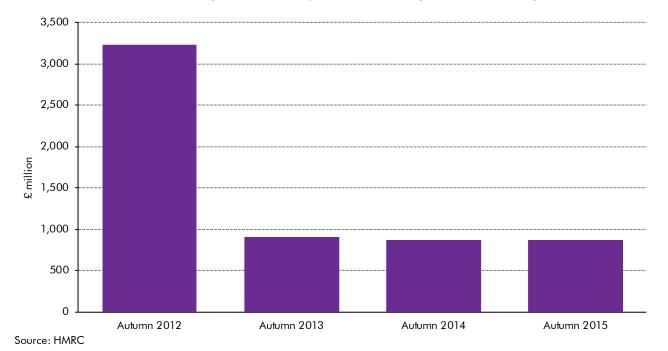


Chart 3.3: UK-Swiss tax agreement: capital tax costing and re-costings

3.13 We have also lowered our expected yield from the withholding tax. The lower-than-expected yield is likely to reflect both a smaller initial tax base and a larger behavioural response than was estimated. The smaller tax base is likely to reflect some combination of: fewer assets held by UK individuals in Swiss banks; more of the assets belonging to non-domiciles or people who are already compliant; the failure of Swiss banks to identify UK individuals holding assets; and circumvention of the deal. Capital flight to other offshore centres is likely to have been greater than expected. There are also indications that a higher than expected proportion of individuals chose to disclose via the LDF or to HMRC directly. However, due to the smaller than estimated tax base, the expected yield from each case was also lower, so the costing from these two routes was reduced to less than half the original figure. Combining the various elements, the measure has generated an estimated £1.4 billion to date.

Tax repatriation from Jersey, Guernsey and the Isle of Man

3.14 The Budget 2013 measure announcing the disclosure facility with the crown dependencies was originally costed to raise £1,050 million from 2013-14 to 2017-18. This was made up of two main elements: first, the voluntary disclosure of unpaid past tax liability, which would run from 2013-14 to 2016-17; and second, an information exchange agreement whereby HMRC would receive, from 2016 onwards, annual information on UK resident account holders, which would generate future compliance yield. Around 75 per cent of the total yield was expected to come from disclosure, although it was acknowledged that more (less) disclosure would lead to lower (higher) future compliance yield. Figure 3.2 shows the methodological steps from the original costing.

Figure 3.2: 'Tax repatriation from Jersey, Guernsey and the Isle of Man': original methodology

Step 1

Use data on investment levels to generate estimate of taxable funds using assumptions. Adjust for those already compliant or non-UK domiciled.

Step 2

Deduct for undeclared funds lost to capital flight.

Step 3

Estimate the proportion that will choose to disclose voluntarily, including through the LDF, and apply appropriate tax rate.

Step 4

Apply the average compliance yield per case.

Step 5

Deduct the compliance revenue HMRC would recover without the measure.

Step 6

Profile the costing by: growing funds using 5 year GDP forecast, applying attrition to reflect declining funds over time, an allowance for late settlement dates, apportioning by tax head.

Overall

Once again, lack of available evidence and multi-stage modelling made this a very uncertain costing. Further difficulties include isolating the effect of this measure from those that preceded. The behavioural effect reduced the costing by around 60 per cent.

Data

- no reliable estimate of the tax base poor data
- data on total investments from Isle of Man government and IMF investment survey

Uncertainty rating: very high

Behaviour

- some move their funds to other offshore territories
- some will choose to disclose
- others will neither move funds nor disclose
- attrition of funds over time

Uncertainty rating: high

Modelling

- significant modelling challenges
- multiple stages and high sensitivity on a range of unverifiable assumptions

Uncertainty rating: very high

- 3.15 In our 2014 evaluation exercise, we noted the measure was no longer expected to yield benefits as quickly as estimated in the original costing, due to lower than expected numbers disclosing. We have re-profiled the yield to later years and assumed a shortfall of around 20 per cent relative to the original estimate, around £800 million from 2013-14 to 2017-18, and adjusted to account for the disclosure facility end date being brought forward to December 2015.
- 3.16 The final yield from this measure remains highly uncertain and will depend on whether there was a surge in taxpayers registering for the disclosure facility ahead of its closure at the end of 2015. More information will be available when we update the forecast in our March 2016 EFO. As noted above, fewer disclosures might mean more compliance cases for HMRC to work once it receives taxpayer information, though the resulting yield is profiled for the later years of the forecast. As with the Swiss agreement, this measure will have generated additional disclosures though the LDF, for which the settlement period is longer, so possibly not yet reflected in the numbers.

Stamp duty land tax: avoidance on residential property and associated CGT changes

3.17 The SDLT measure announced at Budget 2012 has raised more than initially expected. This package was formed of two main changes: an annual tax on enveloped dwellings (ATED) worth over £2 million and a 15 per cent SDLT rate on newly enveloped properties. The CGT changes referred to in the title had a negligible costing. The ATED rate ranged from £15,000 to £140,000 a year. Figure 3.3 presents the methodology behind the original costing, which was expected to raise £270 million from 2013-14 to 2016-17.

Figure 3.3: 'Stamp duty land tax: avoidance on residential property and associated CGT changes': costing methodology

For the SDLT element:	For the ATED element:	Data • high quality HMRC data but
Step 1 Identify residential transactions affected by the measure by searching SDLT data for corporate entities.	Identify value of residential housing stock affected by the measure.	identifying corporate entities affected by the measure is assumption based Uncertainty rating: medium
Step 2 Estimate the amount of tax due in the including for those transactions that w simultaneously introduced 7 per cent Step 3 Grow the tax base with the 5 year	ould be affected by the SDLT rate. Grow the value of estimated	 Behaviour some will respond by now deciding not to envelope others will decide to envelope and pay the charge
SDLT forecast. Step 4	housing stock with the 5 year forecast for house prices.	 some will decide to envelope but seek an alternative avoidance route
Apply the enveloping charge. Step 5	Apply the annual charge.	 those within envelopes might choose to de-envelope rather than pay the charge
Behavioural effects: less incentive to e de-envelope. These affect not only SD Step 6	 attrition is applied to account for expected losses to alternative avoidance 	
Behavioural adjustments to reflect effe	 effects on property transactions and prices 	
Step 7 Further adjustments to account for op		Uncertainty rating: very high
valuation appeals, collection rates an Overall This measure had four unpredictable housing market forecast, numerous b implementation and operation of a ne other measures and across tax heads	 Modelling multi-stage methodology with significant modelling challenges Uncertainty rating: high 	

3.18 HMRC has detailed data on these measures and the latest outturns show that the initial costings vastly underestimated the number of enveloped properties, the average value of

these properties and significantly overestimated the incentive to de-envelope. Our latest estimate is that these measures will yield around £900 million from 2013-14 to 2016-17, despite new measures exempting various properties from the charges. The lessons from this costing were incorporated into the estimates for the Budget 2014 extension of the ATED regime for properties valued over £500,000.

Disguised remuneration

3.19 This Budget 2011 measure levies a tax charge where employers reward employees through trusts or other intermediaries with the intention of avoiding income tax and NICs or restrictions on pensions tax relief. Figure 3.4 summarises the methodology in the original costing, which expected the measure to generate around £3.8 billion from 2011-12 to 2015-16.

Figure 3.4: 'Disguised remuneration': costing methodology

Step 1 The tax base is derived from cases identified across HMRC's employer benefit trust (EBT) databases. Step 2 An uplift is applied to capture cases not in the database.	 Data EBT database built by HMRC compliance teams incomplete data Uncertainty rating: medium-high
Step 3 The tax base is grown in line with the 5 year forecast in wages and salaries plus an additional 5 per cent to account for underlying growth. Step 4 Relevant income tax, NICs and capital gains tax rates are applied.	 Behaviour EBT users could switch to remuneration via employment income some could switch to capital gains payment schemes some may continue to use undocumented EBTs or other avoidance attrition to account increased
Step 5 A range of behavioural responses are allowed for, including a loss in corporation tax. Overall The main uncertainty here is the strength of the	 difficient of account increased avoidance over time Uncertainty rating: high Modelling some modelling challenges
behavioural response, which reduced the costing by about 55 per cent. The size and growth of the tax base was also unpredictable, as was interaction with other measures.	 difficult to generate up-to-date baseline Uncertainty rating: medium-high

3.20 This is now expected to raise around £3.9 billion. HMRC operational intelligence suggests the number of scheme users that would be affected was underestimated and that the legislation has been effective in countering the EBT avoidance schemes being exploited at the time. As avoidance schemes can adapt to changes in legislation there remains some avoidance risk in this area.

15

Onshore employment intermediaries

3.21 This Autumn Statement 2013 measure strengthened legislation to tackle the use of intermediaries facilitating false self-employment. It also introduced a new quarterly reporting obligation on intermediary businesses engaging with workers outside of PAYE. Figure 3.5 shows the original costing methodology, which estimated that the measure would raise £2.2 billion from 2014-15 to 2018-19.

Figure 3.5: 'Onshore employment intermediaries': costing methodology

Step 1

Estimate the number of individuals subject to the measure.

Step 2

Adjust the number to account for the previously introduced offshore intermediaries measure.

Step 3

Estimate the average contract value/ level of profit.

Step 4

Grow with 5 year forecast for average earnings.

Step 5

Estimate and deduct level of allowable expenses.

Step 6

Apply appropriate tax rate.

Step 7

Behavioural attrition adjustment to reflect unspecified alternative avoidance channels.

Overall

The underlying data for this measure were weak and exaggerated the behavioural uncertainty. It was also difficult to isolate the effect of this measure from others in this area. The behavioural effect reduced total yield by around 35 per cent.

Data

- tax base cannot be directly identified; instead is derived by assumptions and HMRC operational intelligence
- the construction industry scheme some general level construction data
- little data for other industries

Uncertainty rating: very high

Behaviour

- some individuals switch to an alternative avoidance scheme
- attrition reflects increasing avoidance over time

Uncertainty rating: high

Modelling

- some modelling challenges
- difficulty to generate up-to-date baseline; sensitivity to underlying assumptions

3.22 The introduction of the reporting obligation was deferred until 2015-16, which means that no information was received for 2014-15, contrary to what was originally expected. This has meant yield across 2014-15 and 2015-16 has been revised down. We have revised up the forecast for 2016-17 and 2017-18 as compliance activity on the back of this reporting picks up, including retrospectively pursuing avoidance back to April 2014. The current estimate is for £1.9 billion from 2014-15 to 2018-19.

Uncertainty rating: medium-high

General anti-abuse rule (GAAR)

3.23 Announced at Budget 2013, this measure was targeted at countering contrived, 'egregious', tax avoidance. It was expected to raise £235 million between 2014-15 and 2017-18. Figure 3.6 summarises the costing approach for the original measure.

Figure 3.6: 'General anti-abuse rule': original methodology

Step 1

Derived the tax base from HMRC's estimate of the gross avoidance tax gap, itself uncertain, using further assumptions. Then estimate the proportion of tax avoided via abusive arrangements by individuals and companies.

Step 2

Grow by the 5 year forecast for earnings and profits.

Step 3

Profile yield across the forecast period using estimates of the number and size of cases, the timelines for GAAR application and subjective probabilities around the outcomes.

Step 4

Adjustments are made for behavioural effects.

Overall

This costing was derived from the expected behavioural response – compliance through deterrence – as well as directly from GAAR cases. Not many cases were expected to have concluded before the end of the original forecast period (2017-18).

Data

- tax base cannot be directly identified
- HMRC estimate of overall tax gap

Uncertainty rating: very high

Behaviour

- some users switch to alternative avoidance
- deterrent effect encourages more compliance

Uncertainty rating: high

Modelling

- difficult to model the likely timeline for cases
- uncertain in which cases GAAR would be required

Uncertainty rating: very high

- 3.24 It is clear that the timelines in the original costing were too short and HMRC now expects the time from identification to tax receipt to be around two years longer. The estimate of future yield from the GAAR remains highly uncertain due to the fact that no referrals have yet been made to it, and so its effectiveness in practice remains to be tested. It should be noted that some of the yield from the original costing came from taxpayers who were deterred from using egregious schemes rather than directly through the use of the GAAR.
- 3.25 The latest estimate is that it will raise around £260 million from 2014-15 to 2017-18. This is for two reasons: first, an update to the underlying economic and tax data; and second, a modelling adjustment to allow for a more prolonged deterrent effect the original costing only captured the benefit for a single year's deterrence, which has now been revised. However, further attrition is included to account for declining gains over time as some taxpayers are assumed to find alternative approaches to avoidance.

Using real-time PAYE information to inform tax credits calculations

3.26 This Spending Review 2010 measure sought to use HMRC's new real-time PAYE information (RTI) system to lower overpayment of tax credits through a reduction in error and fraud. Figure 3.7 summarises the methodology from the original costing. This costing only applied to the final two years of the original forecast period, with total savings across the two years combined (2014-15 to 2015-16) expected to be £750 million.

Figure 3.7: 'Using real-time PAYE information to inform tax credits calculations': original methodology

Step 1

The baseline tax credits expenditure forecast from 2010-11 to 2015-16.

Step 2

Estimating future error and fraud (E&F) and overpayments by applying historic rates to expenditure forecast.

Step 3

Assume that HMRC reach its E&F target by 2014-15.

Step 4

An assumption is made to account for the migration to real time information (RTI) during 2014-15.

Step 5

Savings generated from an assumed rate of successful matching between PAYE and tax credits.

Step 6

An assumption is made to allow for the expected migration to universal credit of 25 per cent of tax credit customers by 2014-15.

Overall

The long time period between announcement and expected savings meant there were considerable uncertainties around the delivery of RTI and the effect of other policy measures, including the migration to universal credit. The five year gap also meant the usual uncertainties around the baseline forecast were accentuated.

Data

- taken from the 2008-09 tax credits error and fraud analytical programme (EFAP)
- assume that historic trends of error and fraud (E&F) are a reasonable baseline approximation
- administrative data on tax credits overpayments, though this is incomplete

Uncertainty rating: medium

Behaviour

there is no behavioural effect in this measure

Uncertainty rating: n/a

Modelling

- multiple modelling stages
- high sensitivity on range of unverifiable assumptions

Uncertainty rating: very high

3.27 Our latest estimate has revised down to around £450 million across 2014-15 to 2015-16. The reduction is mainly due to fewer cases affected by RTI, partly as a result of reductions in income error and fraud prior to 2014-15. We have also lowered our forecast for future years.

Error and fraud: additional capacity

3.28 This measure sought to bring in private sector support for HMRC tax credits compliance activity. It was part of the Autumn Statement 2013 measure 'tax credits: improving collection and administration'. It was originally expected to generate savings of £1.1 billion from 2014-15 to 2018-19. Figure 3.8 describes the costings methodology.

Figure 3.8: 'Error and fraud: additional capacity': original methodology

Step 1

The baseline is the 5 year tax credits expenditure forecast.

Step 2

Deduct reductions in net error and fraud from other measures.

Step 3

Forecast future error & fraud by applying historic rates to expenditure forecast.

Step 4

Estimate amount of error & fraud worked by the supplier, allowing for time for supplier to become fully effective.

Step 5

Calculate amount of debt identified and recovered over time, deducting supplier commission costs.

Step 6

Deduct debt that would have been recovered in the absence of the measure, including from other measures; allow for expected migration to universal credit.

Overall

The main area for concern with this measure was around delivery, including whether the supplier could meet HMRC demand for cases.

Data

- HMRC admin data on tax credits
- historical rates of error and fraud

Uncertainty rating: mediumlow

Behaviour

small deterrent effect

Uncertainty rating: mediumlow

Modelling

 number of operational steps required to meet delivery targets

Uncertainty rating: high

3.29 This measure has been subject to a number of issues: the start date was initially pushed back from April to September 2014; it was then further delayed due to IT problems; and when it did come into operation in 2014-15, the number of cases worked proved only around a quarter of those expected. Overall savings from this measure are now around £400 million from 2014-15 to 2018-19, £700 million lower than originally expected.

Accelerated payments

- 3.30 Since August 2014, HMRC has been issuing accelerated payments (AP) notices, which bring in revenue more quickly by demanding payment upfront in avoidance cases. In total these cover five separate measures: 'penalties in avoidance cases' from Budget 2013; 'accelerated payments in follower cases' from Autumn Statement 2013; 'accelerated payments: extension to disclosed tax avoidance schemes and the GAAR' from Budget 2014; 'corporation tax: accelerated payments and group relief' from Autumn Statement 2014; and 'accelerated payments: extension' from Budget 2015. Now that all of these are in effect, they are treated collectively in our forecast.
- 3.31 Figure 3.9 shows the methodology from the largest measure, that from Budget 2014. For evaluation purposes, we also use our Budget 2014 forecast covering the first three announced measures as the baseline. At the time, they were expected to generate £4.7 billion from 2015-16 to 2018-19. The two more recent measures would be expected to increase this by around a further £545 million. It is important to note that AP notices mostly

change the timing of Exchequer receipts – by bringing forward future receipts they are effectively lowering future receipts, mostly from beyond the end of the forecast period.

Figure 3.9: 'Accelerated payments': original methodology

Step 1

The value of tax under consideration for all relevant current avoidance cases is identified using HMRC data.

Step 2

An estimate is then made of the future flow of cases, taking into account the deterrent effect of AP.

Step 3

Historic litigation success rates are used to calculate value of payments which could be accelerated.

Step 4

Behavioural adjustments are made around the timing of payments.

Step 5

Deductions are made for those who do not comply with the upfront payment notice and for the appeals process.

Step 6

Allowances are made for repayments of accelerated payments where cases are lost, including interest.

Overall

Though the underlying data was reasonable there was quite a bit of uncertainty around the timings, in particular for payments and repayments.

Data

- HMRC information on the value of tax under consideration linked to avoidance
- HMRC litigation success rate

Uncertainty rating: medium

Behaviour

- some choose to pay within the specified timeframe
- some enter time-to-pay arrangements
- some choose not to pay

Uncertainty rating: mediumhigh

Modelling

- multiple-stage model
- sensitivity to particular underlying assumptions

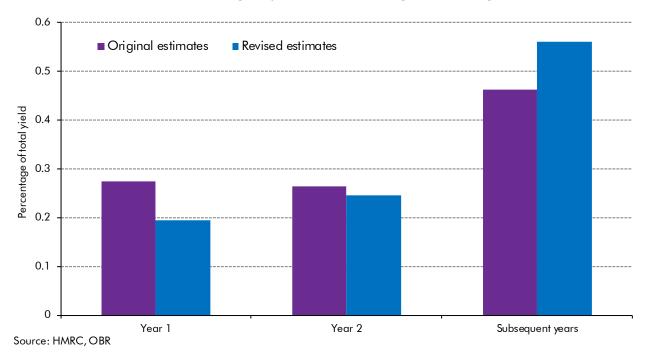
Uncertainty rating: high

3.32 Our review of the AP measures shows that HMRC has brought forward more revenue than originally estimated. While our estimate of total yield from AP remains broadly unchanged compared to the original estimates, we have revised the profile. We are now forecasting higher yield in earlier years and greater losses in later years.

Timing of receipts compared to original costing

- 3.33 In our December 2014 EFO, we noted that "a key lesson from this exercise relates to the profile of expected yield. Anti-avoidance measures like many new government activities can take longer than expected to start delivering results. This includes measures that rely on new processes, staff or external contractors."
- 3.34 Chart 3.4 covers all 59 measures evaluated across the last two years. Across all measures, the original costings estimated 54 per cent of the total yield would be generated in the first two years. On the revised estimates that has fallen to 44 per cent. This provides further evidence that costings have tended to be too optimistic about the timing of yield. At the

moment we still expect the majority of the total yield to materialise in later years, but this represents an important source of uncertainty in our fiscal forecast.



21

Chart 3.4: Difference in timing of yield between original costing and current estimate

4 Lessons learned and next steps

- 4.1 The yield from the majority of policy measures that we have evaluated is reasonably close to the original estimate, but there are more under-performing measures than over-performing ones. A number of these policies remain at a relatively early stage of implementation, so it is not possible to make a definitive statement about their overall performance against the original costings. As shown in Chart 3.4, we are still forecasting additional yield from a number of these measures.
- 4.2 We are continuously making use of the lessons we learn from previous policy costings. That is particularly true for anti-avoidance measures, which are subject to greater uncertainty than most and have been one of the Government's preferred sources of revenue-raising in recent Budgets and Autumn Statements. For example, the lessons from the UK-Swiss tax agreement led to a re-profiling of yield from the other offshore agreements, in particular reducing expected receipts in the early period.
- 4.3 Despite some relatively large underestimates for the small number of specific measures detailed in Chapter 3, the evidence across all 59 measures does not suggest a systematic bias in the overall amount that is expected to be raised. However, it is clear that previous costings have on average underestimated the amount of time that it would take before a measure becomes fully effective. This lesson has proved to be especially relevant to the scrutiny of operational measures, where we now routinely ask for detailed delivery plans, and suggest adjustments to the costings where necessary. These lessons were applied when certifying the 'making tax digital' measure in November 2015, where we examined the contingency built into HMRC's implementation plans before certifying the expected yield in the final years of the forecast period. Operational tax credits measures are now monitored and re-costed at each fiscal event, making use of the additional OBR staff resource on welfare issues that was introduced in 2014.
- 4.4 In our July 2015 *EFO*, we discussed the Government's announcement of a package of measures designed to increase the level and quality of compliance activity carried out by HMRC. At that time, we sought assurances from the Treasury regarding the funding of these measures, and we also scrutinised evidence from HMRC's performance over the last Parliament. We noted that these measures were subject to considerable uncertainty. That remains the case, but having completed this evaluation of anti-avoidance measures and reviewed the assumptions used in the costings of those measures as part of the forecast process, we remain satisfied that the estimates of the yield from the measures published in July remain reasonable and central.
- 4.5 The Government has announced further anti-avoidance and compliance measures in recent Budgets and Autumn Statements, including in Spending Review and Autumn Statement

2015. For many new and existing policies, the yield is only expected during the current forecast period and we will evaluate them once they have come into effect. For example, information on the yield from the Budget 2013 and Autumn Statement 2013 policies on partnership income will only be available from February 2016, so will be reported as part of our 2016 evaluation. We will continue to monitor the costing of anti-avoidance measures and report on them when information becomes available.

23

A List of evaluated measures

Announced at	Measure title	Forecast period Tota	l yield (£m)
Autumn 2010	Using RTI PAYE to inform tax credits calculations	2011-12 to 2015-16	750
	Manufactured overseas dividends	2011-12 to 2015-16	150
Autumn 2012	Tax credits: recovering debt Tax credits: error and fraud HMRC: anti avoidance HMRC: investment Tax repatriation from Switzerland	2012-13 to 2017-18	610 585 1380 -115 5310
Autumn 2013	Accelerated payments in follower cases Avoidance schemes: using derivatives Tax credits: annual entitlement Compensating adjustments Double taxation relief: closing loopholes Dual Contracts Tax credits: improving collection and administration Oil and Gas: offshore chartering Onshore employment intermediaries Partnerships: confirming extension to alternative investment funds Corporation tax: share of ownership rules Tax debt: improved collection Venture capital trusts: share buy-backs	2013-14 to 2018-19	675 110 70 530 35 270 1055 525 2185 1920 -40 75 140
Autumn 2014	Strengthening the self-employed test Corporation tax: accelerated payments and group relief	2014-15 to 2019-20	145 10
Budget 2011	Currency for tax calculations: avoidance Disguised remuneration Leasing double allowances: avoidance Sale of lessor companies: avoidance VAT: fraud on imported road vehicles VAT: supply splitting using printed matter	2011-12 to 2015-16	300 3770 580 95 340 250
Budget 2012	Capital allowance: avoidance Debt buybacks: avoidance SDLT: avoidance on residential property and associated CGT changes	2012-13 to 2016-17	205 660 270
Budget 2013	General anti-abuse rule: non revenue protection Penalties in avoidance cases Avoidance schemes: enhanced information powers Corporation tax: losses Debt cap: tightening of rules Debt: improved coding out Income tax: transfer of assets abroad	2013-14 to 2017-18	235 130 110 1230 225 130 -30

Table A.1: List of evaluated measures

Table A.1 continued: List of evaluated measures

Announced at	Measure title	Forecast period	Total yield
Budget 2013	Loans from close companies to participators		270
	Offshore employment intermediaries		340
	Partnerships review	2013-14 to 2017-18	1075
	Stamp duty land tax: subsales		160
	Tax repatriation from Jersey, Guernsey and Isle of Man		1050
Budget 2014	Accelerated payments: extension to DOTAS and GAAR		3920
	Enveloped dwellings: new bands between £500,000 and		365
	£2 million		005
	Direct recovery of debts	2014-15 to 2018-19	365
	Avoidance schemes using the transfer of corporate profits		380
	Tax credits debt: increasing recovery rate		40
	Restrictions of migrants' access to benefits		120
Budget 2015	Accelerated payments: extension	2015-16 to 2019-20	555

25