THE TAX GAP FOR CORPORATION TAX

Oxford University Centre for Business Taxation

3rd December 2012

In summer 2012 the National Audit Office (NAO) commissioned the Oxford University Centre for Business Taxation (OUCBT) to draw up an academic review of the Disclosure of Tax Avoidance Schemes regime (DOTAS) and the tax avoidance landscape. The academic review formed part of the evidence base behind the NAO’s report: “Tax avoidance: tackling marketed avoidance schemes” (November 2012). The NAO’s report “examines the effectiveness of the DOTAS regime and HMRC’s response to marketed tax avoidance schemes, particularly those used by large numbers of individuals and smaller businesses.”

The review produced by the OUCBT consisted of three papers on tax avoidance generally, DOTAS and the Tax Gap. They are being made available here as a matter of public record.1

The OUCBT is an independent academic organisation that has no collective view. The academic review represents the view of the individual authors only: Professor Michael P. Devereux, Professor Judith Freedman and Dr. John Vella.2 Nothing stated here should be taken to represent the views of the NAO. Details of the independent status of the OUCBT and its various sources of sponsorship can be found at http://www.sbs.ox.ac.uk/centres/tax/about/Pages/Funding.aspx

HMRC define the tax gap as “the difference between tax collected and the tax that should be collected”.3

A central problem with HMRC’s definition of the tax gap is that the tax that “should” be collected is open to different interpretations, particularly in relation to avoidance. HMRC define the tax that should be collected as “the tax that would be paid if all individuals and companies complied with both the letter of the law and HMRC’s interpretation of the intention of Parliament in setting the law (referred to as the spirit of the law)”.4

As is evident in our paper on tax avoidance, the distinction made by HMRC between the letter and the spirit of the law is problematic. Courts apply a purposive interpretation of statutes in seeking to apply the law according to the intention of Parliament. In the context of avoidance, the tax gap as defined by HMRC therefore reflects in essence the difference between the interpretation of the intention of Parliament made by the courts, and made by HMRC.

1 Minor amendments and additions to the papers have been made since their submission to the NAO. In particular the papers have not been updated to reflect the new information released in the NAO report itself.
2 The authors are grateful to Francis Ng for valuable research assistance.
This explains the HMRC’s position that for companies in the Large Business Service “the main cause of the net tax gap is where HMRC unsuccessfully challenges avoidance or loses in litigation cases.” When it loses a case, HMRC typically interprets the foregone revenue as reflecting avoidance and hence adding to the tax gap, rather than revising its estimate of the tax that “should” be payable.

The interpretation of the courts may be defined exactly in a legal judgment for cases that are litigated. But where HMRC settles a disputed case out of court, in principle it presumably settles at a level of tax that it believes that a court would decide. In forming its judgement of the intention of Parliament, it may be that HMRC takes a broader view than the courts of what Parliament may have intended. But it should be noted at the outset that this must reflect its subjective judgement of the intention of Parliament.

This estimated measure can undoubtedly be of use to HMRC. However the use that HMRC make of it should reflect this difference in the interpretation of the intention of Parliament. In fact, however, HMRC tends to use the measure as a guide to the extent of tax compliance. For example, it states that “measuring the size of the tax gap provides measures of the level of voluntary compliance and of HMRC’s effectiveness in tackling non-compliance. We aim to reduce the tax gap by ensuring that our customers pay the tax that is due.” In a recent Issue Briefing HMRC explain that “[t]he tax gap is the difference between the amount of tax due to the Exchequer and the amount actually collected in any given year.”

Statements such as these seem to equate “tax that is due” or “owed” with “HMRC’s interpretation of the intention of Parliament”. But these are very different concepts, especially in the context of avoidance, and equating them can give a very misleading impression of the nature of the tax gap as estimated by HMRC.

What HMRC are seeking to measure is not compliance with the law as it stands, and as it would be interpreted by courts. In the context of the categorisation in our Tax Avoidance paper, what the tax gap aims to measure is case B of “effective avoidance”. But it is worth identifying the issues more precisely. Case B arises “due to a defect in the legislation or other failure in the way the legislation is written that cannot be corrected by purposive interpretation. This is not necessarily a policy failure as such, but there may be a difficulty in applying purposive interpretation, especially particularly where the policy behind the

---

8 In the case of large business, HMRC explicitly state that the tax gap does not measure “tax owed or unpaid”. See HMRC (2011) "Measuring Tax Gaps", p.52, and the discussion below.
legislation is not discernible, as is too often the case with technical tax legislation.”

This is quite different from any concept of “compliance”. HMRC claims that "the tax gap improves public understanding"; but the confusion between the definition that it uses and the way it has used the term in practice suggests the opposite.

A second problem with the approach of the HMRC is one of aggregation. HMRC lists the following reasons why tax that should be collected may not be: “non-payment, use of avoidance schemes, interpretation of tax effect of complex transactions, error, failure to take reasonable care, evasion, the hidden economy and organised criminal attack”. These are all issues with which HMRC must deal. As a means of targeting resources within HMRC, or identifying problems with legislation, even imprecise measures of the effects of each of these reasons (for different taxes) may be useful. But that leaves open whether an aggregate tax gap estimate, as produced annually by HMRC, is valuable. The Treasury Select Committee took the view that “it is unhelpful to aggregate these different behaviours”. HMRC did not fully accept this recommendation.

In this short note we do not address the issue of aggregation. Instead we focus on a much narrower question: the tax gap as it applies to corporate profit, specifically the corporation tax gap. We describe and comment on the approach taken by HMRC, and the results presented by HMRC.

HMRC estimates three separate tax gaps, for: businesses dealt with by the HMRC Large Business Service; other large and complex businesses; and small and medium enterprises. We discuss these in turn. We then briefly address the relative size of the tax gap for each of these groups. In an appendix, we briefly consider a different approach that has received recent attention, based on a comparison of accounting and tax treatments.

1. Businesses managed by the Large Business Service (LBS)

   The conceptual approach

In estimating the tax gap for approximately 800 groups, managed by the Large Business Service, HMRC focuses on two types of risk: “avoidance risks” and “technical risks”. According to HMRC, “[t]he avoidance category relates to the use of disclosed avoidance schemes or other suspected avoidance identified by

---

HMRC tax specialists. Technical risks cover a wide range of risks; from cases where there is genuine uncertainty about the correct tax treatment, through mistakes to culpable errors in, or omissions from, the company tax return”. 12

Cases are determined as falling into one of these two categories by the initial assessment made by HMRC tax specialists. For any company managed by the LBS, the amount of tax under consideration (known as “TuC”) is the sum of possible tax liabilities in these two categories. HMRC state that:

“[t]he TuC in an enquiry is an estimate initially made before any consideration of the specific facts has taken place and before any reliefs or allowances are applied. It does not represent the tax owed or unpaid. The TuC for a given risk is updated when the Department’s view on the possible outcome of the enquiry changes, for example, because new facts are established or legal advice is obtained.”13

HMRC defines the tax gap:

- “for avoidance risks, as the total TuC minus the total actual and expected compliance yield, and
- for technical risks, where it has not been possible to reach agreement, as the total TuC minus the total actual and expected compliance yield”.14

These definitions beg a number of questions.

First, the reason for defining TuC before reliefs or allowances is unclear. Reliefs and allowances deliberately included in legislation (case C in the categorisation in our Tax Avoidance paper – Paper 1) should not generally be treated as avoidance (unless they are being misused in some way). Presumably the estimated tax gap does not actually reflect such intended reliefs and allowances.

Second, HMRC explicitly state that TuC does not represent tax owed or unpaid. This is clearly true as we have argued above. But it is not consistent with claiming that the tax gap identifies non-compliance.

Third, the circumstances in which the TuC would be revised downwards are unclear.

The statement seems to highlight a possible inconsistency in treatment between three different issues.

First, technical risks that are resolved by agreement (which do not go to litigation) are not treated as part of the tax gap. This is consistent with technical risks being questions about tax liabilities that can in principle be resolved – for example, if they reflect errors, or genuine uncertainty about the law. This

position suggests that in such cases the TuC is revised when a settlement is reached to the satisfaction of HMRC.

Second, however, where the issue is instead litigated, HMRC identifies a tax gap as being the difference between the TuC and the amount that the court decides is owed. Presumably, if an error, mistake or omission were identified in the return, this would not require litigation. It thus appears reasonable to assume that technical risks which are litigated concern genuine uncertainty about the correct tax treatment. But if there is genuine uncertainty, it is not clear why HMRC insists on identifying the foregone tax relative to the TuC as part of the tax gap. It does not seem completely consistent with the treatment of cases that are not litigated.

Third, this second approach appears to be more consistent with the treatment of what HMRC terms “avoidance”. However, in this case there is no apparent distinction in treatment depending on whether or not the case is litigated. In cases that go to litigation, HMRC define the tax gap to be the difference between the TuC and the amount of tax imposed by the court. Again this reflects the difference in the two interpretations of the intention of Parliament of HMRC and the court. Presumably in some cases that are settled but not litigated, HMRC accept a lower amount than the TuC because it believes that the courts would not uphold the TuC. Again, this forms part of the tax gap.

**Likely measurement errors in estimating the tax gap**

To identify the likely scope for error in estimating the tax gap, first take the definition of the tax gap as defined by HMRC. HMRC may underestimate the tax gap if there are schemes that in its view should have been liable to taxation or to a higher amount of taxation but which it simply missed.

However, in some cases HMRC’s interpretation of the intention of Parliament could be challenged. Suppose that there is some unknown, but “true” intention of Parliament. Relative to this “true” measure, HMRC may also overestimate the tax gap if the TuC as estimated by HMRC is greater than the “true” measure. In this case the amount of tax paid could be higher or lower than the “true” measure. If it is lower, then HMRC simply overestimates the tax foregone. It could be higher if HMRC succeed in collecting an amount higher than the “true” measure. In this case, the overestimate represents HMRC’s view of tax foregone, plus the overpayment relative to the “true” amount.

**Estimated size of the tax gap**

The latest year for which estimates are current available is 2008/9. In that year, HMRC identifies a TuC of £6.5 billion, split between “technical risks not subject to litigation” of £3.0 billion, and “technical risks subject to litigation” together with “avoidance” of £3.5 billion.
The tax gap is defined as the second amount of £3.5 billion less the amount that HMRC estimates it already has or will receive in respect of this amount (known as the "compliance yield"). For 2008/9, HMRC estimate the compliance yield to be £2.0 billion. This leaves the tax gap for businesses managed by the Large Business Service in that year as £1.5 billion, split as £1.1 billion for avoidance and £0.4 billion for technical risks not subject to litigation.

This figure may seem large since it reflects the affairs of only around 800 businesses. However, it should be put in the context of an extremely skewed distribution of corporation tax payments, with large businesses paying the vast majority of corporation tax. According to HMRC, the £1.5 billion of the tax gap represents around 6% of the total liabilities of these companies. This is higher than the revised estimate for 2007/8 of 5%, but lower than earlier years, where it was estimated to be 9% in 2004/5, 8% in 2005/6 and 7% in 2006/7.

These estimates should also perhaps be seen in the light of the extremely complex arrangements of large multinational businesses. The allocation to the UK of the worldwide profit of these companies is an extremely difficult task, and it would not be surprising if the estimated tax gap were therefore much larger than for smaller companies.

2. Large and complex businesses

HMRC manages around 8,500 groups of companies that are classified as large and complex. HMRC does not have detailed data for these companies which allow it to estimate the tax gap in a way similar to that for companies managed by the Large Business Service. HMRC's own description of its approach here is to generate “illustrative indicators for gaps with no direct measure”.15

It therefore proceeds to make an estimate based on assuming that “the tax at risk will represent a similar proportion of liabilities to businesses managed by the LBS”.16 This is clearly an extreme assumption, even if there is no real alternative.

This approach yields a “illustrative estimate” of the tax gap for such companies. The most recent estimate is for 2007/8. This is then projected to 2009/10 and 2010/11, by uprating by the trend in Gross Operating Surplus. This procedure results in estimates of a tax gap of £1.3 billion in 2009/10 and £1.2 billion in 2010/11.

HMRC also attempts to split this tax gap into a part due to avoidance and a part due to technical risks.17 The estimated balance between these two parts is very

---

17 HMRC explain how this is done: “Using information that HMRC holds on avoidance schemes, it is possible to estimate the Corporation Tax gap from avoidance by Large and Complex businesses. The same methodology used to produce an estimate of the IT, NICs and CGT tax gap due to avoidance... can be applied.” HMRC (2012) "Measuring Tax Gaps 2012", p.41.
different from that estimated for groups managed by LBS. HMRC estimate that in 2009/10 only £0.3 billion of the £1.3 billion total is due to avoidance, and in 2010/11 only £0.2 billion of the £1.2 billion is due to avoidance.

This clearly suggests that according to these estimates avoidance activity primarily takes place amongst the largest companies, managed by the LBS.

It also clearly suggests that technical issues are far more prevalent for large and complex companies relative to those managed by LBS. That is, in both 2009/10 and 2010/11, HMRC effectively assumes that technical risks contribute £1 billion to the tax gap. It seems unlikely that the smaller companies have affairs that are more difficult to assess and therefore which have greater uncertainty. This therefore seems to imply that the technical issues are more likely to be due to errors or omissions. However, this calls into question why errors that presumably can be identified and resolved should form part of the tax gap.

This important difference between the two groups therefore calls into question the overall approach to estimating the tax gap for large and complex businesses. If avoidance is much less prevalent amongst this group compared with very large companies, then it is not appropriate simply to assume that the tax at risk represents a similar proportion of liabilities.

An alternative approach would be to use the separate estimate of avoidance for this group of companies, and assume that only technical issues represent the same proportion of liabilities as the LBS companies. Applying this approach, using HMRC data yields an estimate for the tax gap due to technical risks for large and complex companies of around £0.35 billion. Adding HMRC’s independent estimate for avoidance by such companies of £0.3 billion yields an estimate of the total tax gap for such companies of around £0.65 billion – around one half of HMRC’s estimate.

This alternative approach may underestimate the size of technical issues for large and complex businesses. But HRMC offers no evidence either that technical issues account for a tax gap of £1 billion for large and complex businesses, compared to only £0.4 billion for companies managed by LBS in 2008/9.

3. Small and medium-sized businesses (SME)

HMRC’s estimate for the corporation tax gap for small and medium-sized businesses is based on the results of a survey of such companies, the Corporation Tax Self Assessment (CTSA) random enquiry programme. A random sample is drawn from all businesses issued with a notice to file a CTSA return. Enquiries are taken up into the sampled returns, and the results extrapolated to the population.

In 2009, HMRC found that 30% of returns investigated were incorrect and an additional liability was established; of these, 10% related to undeclared liabilities p.a. of less than £1,000, and 20% to more than £1,000. Extrapolating to
the population, and projecting forwards using the trend in total SME corporation tax liabilities, this yields an estimate of undeclared liabilities due to incorrect returns in 2009/10 and 2010/11 of £1.3 billion.

From this, HMRC subtract actual or expected compliance of £0.5 billion for 2009/10 and £0.4 billion in 2010/11. Finally, HMRC adds an estimate of non-payment of £0.6 billion for 2009/10 and £0.5 billion of 2010/11.

This yields an estimate of the tax gap for this group of companies of £1.4 billion in both years, corresponding to 8% of total liabilities of this group. HRMC acknowledges considerable uncertainty in this estimate, with a lower bound of £0.8 billion and an upper bound of £2.3 billion (2009/10) and £2.4 billion (2010/11).

It is worth noting that HMRC states that this estimate is adjusted upwards by a multiplier. HMRC state that: “based on the US research a multiplier of 1.4 is applied to this estimate to account for non-detected non-compliance”. It is not clear why this adjustment needs to be made, but no other explanation is given.

It should be noted that these figures represent different reasons for the existence of the tax gap compared to the largest businesses. In the case of small and medium-sized businesses, HMRC describes the tax gap as resulting from “incorrect returns” and non-payment. No attempt is made to identify or explain why returns are incorrect.

However, HMRC do suggest, following a different methodology, that around £0.1 billion of the tax gap in 2010/11 may have been due to avoidance. The rest could be due to any of the other reasons listed at the outset of this note.

4. Comparison of the estimated tax gap for different-sized businesses.

According to HMRC, in 2010/11 the total tax gap estimated for the three groups was:

<table>
<thead>
<tr>
<th></th>
<th>£ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses managed by LBS</td>
<td>1.4</td>
</tr>
<tr>
<td>Large and complex businesses</td>
<td>1.2</td>
</tr>
<tr>
<td>Small and medium-sized businesses</td>
<td>1.4</td>
</tr>
</tbody>
</table>

However, in interpreting and comparing these figures, it is necessary to compare them to the underlying liabilities of each group.

Unfortunately, there appears to be some inconsistency in the HMRC figures of total liabilities. This is hard to judge precisely, because HMRC does not give figures for comparable periods for each of the three groups. Detailed estimates

---

are not provided for LBS companies after 2008/9, but estimates for 2007/8 and 2008/9 are missing for SME companies. The most recent year available for an overall comparison is therefore 2006/7.

Table 1 shows the distribution of tax liabilities in that year. The total liabilities for this year are given as £42.7 billion. Clearly, this is a very skewed distribution, with the largest 500 companies contributing nearly £20 billion on their own.

It is not possible to directly allocate the liabilities in Table 1 to each of the three groups analysed in the Tax Gap analysis, because Table 1 is based on individual companies, rather than groups.

Figures in the HRMC Tax Gap analysis indicate that the total liabilities in 2006/7 for companies managed by the Large Business Service were £30.1 billion. This includes TuC on avoidance risks and technical risks due to subject to litigation. Subtracting these amounts, and assuming that revenues received from compliance for these amounts was received after 2006/7, then the total liability excluding these amounts was £25.3 billion.

**Table 1 Amount of Tax Payable, 2006/7**

<table>
<thead>
<tr>
<th>(lower limit)</th>
<th>Numbers</th>
<th>Amount (£m)</th>
<th>Cumulative (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0</td>
<td>75,369</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>100</td>
<td>83,452</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>500</td>
<td>55,245</td>
<td>41</td>
<td>66</td>
</tr>
<tr>
<td>1,000</td>
<td>234,586</td>
<td>647</td>
<td>713</td>
</tr>
<tr>
<td>5,000</td>
<td>149,206</td>
<td>1,075</td>
<td>1,788</td>
</tr>
<tr>
<td>10,000</td>
<td>212,400</td>
<td>4,393</td>
<td>6,181</td>
</tr>
<tr>
<td>50,000</td>
<td>24,070</td>
<td>1,604</td>
<td>7,785</td>
</tr>
<tr>
<td>100,000</td>
<td>19,950</td>
<td>4,250</td>
<td>12,035</td>
</tr>
<tr>
<td>500,000</td>
<td>3,119</td>
<td>2,182</td>
<td>14,217</td>
</tr>
<tr>
<td>1,000,000</td>
<td>2,743</td>
<td>5,686</td>
<td>19,903</td>
</tr>
<tr>
<td>5,000,000</td>
<td>422</td>
<td>2,966</td>
<td>22,869</td>
</tr>
<tr>
<td>10,000,000</td>
<td>419</td>
<td>8,487</td>
<td>31,356</td>
</tr>
<tr>
<td>50,000,000</td>
<td>46</td>
<td>3,282</td>
<td>34,638</td>
</tr>
<tr>
<td>100,000,000</td>
<td>40</td>
<td>8,084</td>
<td>42,722</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>861,067</strong></td>
<td><strong>42,722</strong></td>
<td><strong>42,722</strong></td>
</tr>
</tbody>
</table>

Source: HMRC Corporation Tax Statistics, Table 11.6

Separately, the figure given for 2006 for small and medium-sized businesses is £15.7 billion.

---

HMRC does not give a comparable figure for Large and Complex businesses. However, it does state that the tax at risk is assumed to represent a similar proportion of liabilities as for LBS companies. But the only figure offered by HMRC here is an estimate of the tax gap for 2009/10 of £1.3 billion. If that represents very approximately 6% of total liabilities (as for LBS companies in 2007/8) then total liabilities for these companies in 2009/10 would have been £21.7 billion.

While acknowledging that these figures are not directly comparable, we can make a rough comparison. In 2006/7, the liabilities for LBS and SME companies together sum to £41 billion (ignoring TuC). Even allowing for the liabilities for large and complex businesses to be different in 2006/7 than in 2009/10, presumably the 2006/7 liabilities must have been of the order of £20 billion. Together with the other two groups, then, this would seem to represent liabilities in excess of £60 billion. This is considerably more than the published estimate of £42.7 billion.

This discrepancy makes it difficult to compare the relative size of the tax gap for businesses of different sizes.

**Appendix: The Book-Tax Gap**

A completely different approach to measuring the tax gap of corporations is to compare the difference between accounting profit declared in financial statements with taxable profit; this is commonly referred to as the “book-tax gap”. A figure for the taxable profit of an individual company is not publicly available, but this approach sets out to estimate it using the figure for tax declared in financial statements. In principle, applying the statutory tax rate to accounting profit would indicate the tax that would be due if accounting profit were the legal basis for corporation tax. The difference between this figure and tax actually paid reflects the differences between the definitions of profit for accounting and tax purposes.

This difference is the basis of a widely-discussed paper by Murphy,22 which claims that the largest 700 companies in the UK avoid £12 billion p.a. – roughly eleven times the comparable tax gap estimated by HMRC.

Murphy bases his argument on what he refers to as the “expectation gap”, defined as follows:

“The ‘expectation gap’...is the difference between the rate of tax set by the government of the country in which the company operates and the actual rate of tax they pay. This gap is a measure of the difference between the contribution society expects business to make by way of tax paid and what is actually paid”.23

---

As indicated above, what Murphy actually attempts to calculate is the difference between tax actually due, and tax that would be due if the statutory tax rate were applied to accounting profit. The latter may or may not be what the general public “expect”, but accounting profit is not the basis used for taxation and so this expectation is based on a misunderstanding. This difference bears virtually no relationship to the issues which have been discussed so far in this note.

The central reason is that the tax base for corporation tax differs from measures of profit in financial accounts. Freedman states that “in the UK there is considerable degree of conformity between tax and financial accounts but there are major exceptions, so that the ultimate position is one of partial conformity”.24

This is widely accepted: even Murphy acknowledges that “accounting profit can be the wrong basis for assessing the Tax Gap”,25 and lists a number of differences between the treatment for the two purposes. Despite this statement, he makes extravagant claims based on his methodology.

Our Tax Avoidance paper notes some of the differences between accounting and taxable profit by considering the hypothetical example of Red plc:

“Suppose Red plc made accounting profits shown in its financial statement of £100 million this year. Let us suppose that this company bought machinery for £5 million, invested £10 million in research and development, had tax losses of £10 million brought forward from previous years and made £50m of its profits from sales through branches located in overseas jurisdictions.

UK corporation tax allows accelerated depreciation for the purchase of the machinery; grants reliefs for research and development expenditure that may amount to more than 100%; allows many tax losses to be brought forward and set against profits in the current year and exempts much income from foreign branches. The tax due may therefore be considerably lower than the headline rate of tax applied to the accounting profits would suggest. If that is so, then … Red plc may … not [be] engaged in avoidance at all.”

Starting with the tax that would be due if accounting profit were the basis for taxation to estimate the extent of tax avoidance is therefore highly problematic. Even if considerable effort is undertaken to make the many necessary adjustments, it is still not clear whether, and if so to what extent, the results reflect tax avoidance. Arguably, the fundamental flaws in the procedure can never be overcome. At best, any result produced must be treated with extreme caution. With this in mind, we include a brief analysis of the approach taken by Murphy.

Murphy provides an analysis of the worldwide consolidated accounts between 2000 and 2006 of the largest 50 companies in the FTSE in July 2007. One initial problem is that these companies are far from typical of UK companies. They are extremely large and complex and have significant interests abroad. Studying only these companies is unlikely to reveal information about companies not in this group. Extrapolating even to other companies in the Large Business Service is questionable.

Murphy proceeds by estimating an effective tax rate for the consolidated company. This is defined as the current tax charge as a proportion of profit gross of goodwill amortisation.

Murphy therefore excludes deferred tax. His reasoning for doing so is “that it is unlikely to be paid”. Murphy provides an explanation of deferred tax in the case of capital expenditure which receives a rate of capital allowance different from the rate of depreciation used in the financial accounts. But crucially, Murphy argues that since the stock of deferred tax in these companies has been growing over time, then the tax which is deferred is never paid. This does not follow. Any company that is growing over time will be likely in any period to make a net addition to its stock of deferred tax; this new addition is likely to be higher than the reduction due to payment of previously deferred tax. Indeed, Murphy himself acknowledges this point: “so long, however, as a company keeps using new equipment the position where the overall level of deferred tax reverses does not arise and the balance keeps on rising”.

If part of an addition to deferred tax is never ultimately paid, then there would be a case for subtracting this amount from the effective tax rate calculated by Murphy. But Murphy’s approach is extreme: he effectively assumes that no deferred tax is ever repaid. If this were correct then there would be a serious problem in financial accounting, since companies should not be making such a charge.

One other issue of note in Murphy’s estimation of an effective tax rate is that he adds goodwill amortisation to the measure of profit on the grounds that this is not allowable for tax purposes. This in itself is unobjectionable. However, this is only one of the many differences between accounting and taxable profit that Murphy himself recognises.

The remaining major problem with this approach is that the financial statements that Murphy analyses are consolidated and hence apply to the worldwide business of the companies. The tax charge therefore also reflects worldwide tax liabilities. Murphy therefore attempts to estimate the proportion of worldwide profit that should be attributable to the UK, and thus taxed in the UK.

---

One method for doing so is a crude adjustment based on data from companies (where it is available) on the proportion of the company’s employees, profit and tangible assets that are located in the UK. He takes an average of these across this subset of companies, to conclude that around 45% of worldwide profit should be allocated to the UK.28

A second method is based on dividend payments by the parent company. Murphy estimates that the value of dividends paid by his sample of companies, grossed up by his measure of the effective tax rate, is 45% of total profit. Murphy argues that this proportion of worldwide profit is likely to have passed through the UK and hence been subject to UK tax. But this is simply not true. It is true that repatriated dividends from foreign subsidiaries were subject to tax in the UK prior to 2009, but UK tax was offset by a credit for foreign tax already paid. The UK tax liability on repatriated dividends may be small, and indeed estimates around the time of the 2009 reform indicated that less than £1 billion was paid in UK tax on repatriated dividends in total. The fact that a dividend was paid by a UK parent company therefore gives no indication of the underlying tax due in the UK.

In sum, we do not find that this approach is convincing as a way of identifying a measure of the tax gap for corporation tax, even for large companies. This is partly for conceptual reasons: the statutory tax rate applied to accounting profit does not allow us to estimate “the difference between tax collected and the tax that should be collected”.29 And even if it did, the methodology used in this study makes unreasonable assumptions, which undermine the results even on its own terms.

One should not underestimate the negative consequences that misleading estimates of the tax gap may produce. As the HMRC has pointed out, they may undermine public trust in HMRC. Tax collection depends on voluntary compliance; if any individual believes that others are avoiding tax then he or she is perhaps less likely to comply voluntarily themselves.

---

28 It is somewhat confusing that one of the elements used here is profit itself. It is probable that this is intended to refer to sales.
